UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2017

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

FOR THE TRANSITION PERIOD FROM TO

Commission File Number 001-38244

Genprex, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware **(State or Other Jurisdiction of Incorporation or Organization)**	**90-0772347** **(I.R.S. Employer Identification Number)**
100 Congress Avenue, Suite 2000 **Austin, Texas** **(Address of Principal Executive Offices)**	**78701** **(Zip Code)**

Registrant's Telephone Number, including area code: (512) 370-4081

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Name of each exchange on which registered**
Common Stock, par value $0.001 per share	The Nasdaq Capital Market

Securities registered pursuant to 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES ☐ NO ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. YES ☐ NO ☒

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES ☒ NO ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES ☒ NO ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer:	☐	Accelerated filer	☐
Non-accelerated filer:	☐ (Do not check if a smaller reporting company)	Smaller reporting company	☒
		Emerging growth company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided to Section 7(a)(2)(B) of the Securities Act. ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES ☐ NO ☒

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant as of June 30, 2017 (the last business day of the registrant's most recently completed second fiscal quarter) cannot be provided because the registrant's common stock was not traded on any market as of June 30, 2017.

As of April 6, 2018, there were 13,035,004 shares of the registrant's common stock outstanding.

TABLE OF CONTENTS

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements, principally under the headings “Business,” “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations”. In some cases, you can identify these statements by forward-looking words such as “may,” “might,” “should,” “would,” “could,” “expect,” “plan,” “anticipate,” “intend,” “believe,” “estimate,” “predict,” “potential” or “continue,” and the negative of these terms and other comparable terminology. These forward-looking statements, which are subject to known and unknown risks, uncertainties and assumptions about us, may include projections of our future financial performance based on our growth strategies and anticipated trends in our business. These statements are only predictions based on our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from the results, level of activity, performance or achievements expressed or implied by the forward-looking statements. In particular, you should consider the numerous risks and uncertainties described under “Risk Factors.”

While we believe we have identified material risks, these risks and uncertainties are not exhaustive. Other sections of this Annual Report on Form 10-K describe additional factors that could adversely impact our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible to predict all risks and uncertainties, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

Although we believe the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, level of activity, performance or achievements. Moreover, neither we nor any other person assumes responsibility for the accuracy or completeness of any of these forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. Except as required by law, we are under no duty to update any of these forward-looking statements to conform our prior statements to actual results or revised expectations, and we do not intend to do so.

Forward-looking statements include, but are not limited to, statements about:

- our ability to obtain additional funding to develop our current and potential product candidates;
- the need to obtain regulatory approval of our current and potential product candidates;
- the success of our clinical trials through all phases of clinical development;
- compliance with obligations under intellectual property licenses with third parties;
- any delays in regulatory review and approval of product candidates in clinical development;
- our ability to commercialize our current and potential product candidates;
- market acceptance of our current and potential product candidates;
- competition from existing products or new products that may emerge;
- potential product liability claims;
- our dependence on third-party manufacturers to supply or manufacture our products;
- our ability to establish or maintain collaborations, licensing or other arrangements;
- our ability and third parties’ ability to protect intellectual property rights;
- our ability to adequately support future growth; and
- our ability to attract and retain key personnel to manage our business effectively.

You should carefully read this Annual Report on Form 10-K and the documents that we reference herein and have filed as exhibits to this Annual Report on Form 10-K completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in this Annual Report on Form 10-K by these cautionary statements.

We caution you not to place undue reliance on the forward-looking statements contained in this Annual Report on Form 10-K, which speak only as of the date of this Annual Report on Form 10-K.

PART I

Item 1. Business.

Overview

Genprex™ is a clinical stage gene therapy company developing a new approach to treating cancer, based upon our novel proprietary technology platform, including our initial product candidate, Oncoprex™ immunogene therapy, or Oncoprex. Our platform technologies are designed to administer cancer fighting genes by encapsulating them into nanoscale hollow spheres called nanovesicles, which are then administered intravenously and taken up by tumor cells where they express proteins that are missing or found in low quantities. Oncoprex has a multimodal mechanism of action whereby it interrupts cell signaling pathways that cause replication and proliferation of cancer cells, re-establishes pathways for apoptosis, or programmed cell death, in cancer cells, and modulates the immune response against cancer cells. Oncoprex has also been shown to block mechanisms that create drug resistance.

We hold an exclusive worldwide license from The University of Texas MD Anderson Cancer Center, or MD Anderson, to patents covering the therapeutic use of a series of genes that have been shown in preclinical and clinical research to have cancer fighting properties.

With Oncoprex, we are initially targeting non-small cell lung cancer, or NSCLC. Researchers at MD Anderson have conducted two Phase I clinical trials and are currently conducting an ongoing Phase II clinical trial of Oncoprex in NSCLC. According to the World Health Organization, lung cancer is the leading cause of cancer deaths worldwide, killing more people than breast, colon, kidney, liver, prostate and skin cancers, and is the second most common type of cancer. Each year, there are over 1.8 million new lung cancer cases and 1.6 million deaths from lung cancer worldwide, and in the United States there are over 225,000 new cases and more than 150,000 deaths from lung cancer per year. NSCLC represents 80% of all lung cancers. According to a 2016 American Cancer Society report, the five-year survival rate for Stage IV (metastatic) NSCLC is about 1%, and overall survival for lung cancer has not improved appreciably in the last 25 years. We believe that there is a significant unmet medical need for new treatments for NSCLC in the United States and globally, and we believe that Oncoprex may be suitable for a majority of NSCLC patients.

We believe that our platform technologies could allow delivery of a number of cancer fighting genes, alone or in combination with other cancer therapies, to combat multiple types of cancer. Our research and development pipeline, discussed in “Our Pipeline” below, demonstrates our clinical and preclinical progress to date.

Cancer results from genetic mutations. Mutations that lead to cancer are usually present in two major classes of genes: oncogenes, which are involved in functions such as signal transduction and transcription; and tumor suppressor genes, which play a role in governing cell proliferation by regulating transcription. Transduction is the process by which chemical and physical signals are transmitted through cells. Transcription is the process by which a cell’s DNA sequence is copied to make RNA molecules, which then play a role in protein expression. In normal cells, mutations in oncogenes are discovered and targeted for elimination by tumor suppressor genes. In cancer cells, the oncogene mutations may overwhelm the natural tumor suppression processes, or those tumor suppression processes may be impaired or absent. Functional alterations due to mutations in oncogenes or tumor suppressor genes may result in the abnormal and uncontrolled growth patterns characteristic of cancer. These genetic alterations facilitate such malignant growth by affecting signal transduction pathways and transcription, thus inhibiting normal growth signaling in the cell, circumventing the natural process of apoptosis, evading the immune system’s response to cancer, and inducing angiogenesis, which is the formation of new blood vessels that supply cancer cells.

The most common genetic alterations present in NSCLC are in tumor suppressor genes, against which few targeted small molecule drugs have been developed. Each of the two sets of chromosomes in the cell nucleus includes two copies of each gene, called alleles, which may be identical or may show differences. In most situations, tumor suppressor genes require both alleles of a gene to be deleted or inactivated to impair tumor suppression activity and lead to tumor growth. The replacement of just one functional allele may therefore be enough to restore the normal cellular functions of growth regulation and apoptosis.

Among the genetic conditions associated with lung cancer are the overexpression of epidermal growth factor receptors, or EGFRs, and mutations of kinases. Kinases are enzymes that play an important role in signal transduction through the modification of proteins by adding or taking away phosphate groups, a process called (de-)phosphorylation, to change the proteins’ function. When two EGFR transmembrane proteins are brought to proximity on the cell membrane surface, or dimerize, either through a ligand, or binding molecule, that binds to the extracellular receptor, or through some other process, the intracellular protein-kinase domains can autophosphorylate, and activate downstream processes, including cell signaling pathways that can lead to either cell cycle arrest or cell growth and proliferation. EGFRs and kinases can act similarly to a switch that turns “on” and “off” when phosphate groups are either added or taken away. Mutated kinases can have a malfunctioning on/off switch, causing the switch to be stuck in the “on” position or failing to turn the switch “off,” leading to the loss of cell control.

A subset of NSCLC patients (approximately 10% of NSCLC patients of North American and European descent and approximately 30% to 50% of NSCLC patients of Asian descent) carry an EGFR mutation that makes their tumors sensitive to

tyrosine kinase inhibitors, or TKIs, such as erlotinib. However, even for these patients, tumor resistance to TKIs frequently develops within two years, resulting in eventual disease progression. Erlotinib generally does not benefit NSCLC patients who do not have this activating EGFR mutation. However, our clinical and preclinical data have shown that the combination of Oncoprex and erlotinib can increase anti-tumor activity even in cancers without the EGFR mutations, as well as in cancers that have become resistant to erlotinib. For this reason, we believe Oncoprex may be suitable for the majority of NSCLC patients.

Cancer can spread when cells' natural cancer suppression functions are impaired. The tumor suppressor gene called Tumor Suppressor Candidate 2, or TUSC2 (which was formerly known as FUS1) has been shown to affect both cell proliferation and apoptosis. TUSC2 is a pan-kinase inhibitor, which means that it has the ability to inhibit multiple kinase receptors, such as EGFR and platelet-derived growth factor receptor, or PDGFR. TUSC2 is frequently inactivated early in the development of lung cancer, and loss of TUSC2 expression in NSCLC is associated with significantly worse overall survival compared to patients with normal TUSC2 expression. Many types of cancer cells, including approximately 85% of NSCLC cells, lack expression of TUSC2.

Cancer can also spread when the body's natural immune functions are impaired, including by the cancer cells themselves. PD-1, or Programmed Death-1, is a receptor expressed on the surface of activated T cells, which are part of the body's immune system. PD-L1, or Programmed Death Ligand-1, is a protein/receptor expressed on the surface of cancer and other cells. The binding of PD-1 to PD-L1 has been speculated to contribute to cancer cells' ability to evade the body's immune response. PD-1 and molecules like it are called immune checkpoints, because they can impede the normal immune response, for example by blocking the T cells from attacking the cancer cells. In many cancers, PD-L1 receptors are up-regulated, and substantial research is now being performed in the emerging field of immuno-oncology to discover drugs or antibodies that could block PD-L1 and similar receptors. It is believed that blocking the PD-1/PD-L1 interaction pathway and other similar checkpoints, such as cytotoxic T-lymphocyte-associated protein 4, or CTLA-4, with drugs called checkpoint inhibitors can prevent cancer cells from inactivating T cells.

Our Oncoprex immunogene therapy is designed to interrupt cell signaling pathways that cause replication and proliferation of cancer cells, and to target and kill cancer cells via receptor pathways, and also to stimulate the natural immune responses against cancer. Oncoprex combines features of gene therapy and immunotherapy in that it up-regulates TUSC2 expression in the cell, and also increases the anti-tumor immune cell population and down-regulates PD-L1 receptors, thereby boosting the immune response to cancer.

Oncoprex consists of a TUSC2 gene encapsulated in a positively charged nanovesicle made from lipid molecules with a positive electrical charge. Oncoprex is injected intravenously and can specifically target cancer cells, which generally have a negative electrical charge. Once Oncoprex is taken up into a cancer cell, the TUSC2 gene is expressed into a protein that is capable of restoring certain defective functions arising in the cancer cell. Oncoprex nanovesicles are designed to deliver the functioning TUSC2 gene to cancer cells while minimizing their uptake by normal tissue. Tumor biopsy studies conducted at MD Anderson show that the uptake of TUSC2 in tumor cells after Oncoprex treatment is 10 to 25 times the uptake in normal cells. We believe that Oncoprex, unlike other gene therapies, which either need to be delivered directly into tumors or require cells to be removed from the body, re-engineered and then reinserted into the body, is the first systemic gene therapy to be used for cancer in humans.

Clinical data from the evaluation of 24 patients in our Phase I/II clinical trial, as well as our preclinical data, indicate that Oncoprex can be combined with the widely used anti-cancer drug erlotinib (marketed as Tarceva® by Genentech, Inc.) in humans. Erlotinib is a tyrosine kinase inhibitor, or TKI, which uses a mechanism of action similar to that of pan-kinase inhibitors to block the action of tyrosine kinases, which are a type of kinase involved in many cell functions, including cell signaling, growth and division. In addition, MD Anderson researchers have conducted preclinical studies combining Oncoprex with:

- the TKI gefitinib (marketed as Iressa® by AstraZeneca Pharmaceuticals) in animals and in human NSCLC cells;
- MK2206 in animals (MK2206 is an inhibitor of AKT kinases, which affect cell signaling pathways downstream from tyrosine kinases);
- an anti-PD-1 antibody equivalent to the checkpoint inhibitor nivolumab (marketed as Opdivo® by Bristol-Myers Squibb Company) in animals; and
- an anti-CTLA4 antibody equivalent to ipilimumab (marketed as Yervoy® by Bristol-Myers Squibb Company) in animals.

The manufacturers of the marketed drugs were not involved in any of our clinical or preclinical studies. In studies involving marketed drugs, the drugs were administered concurrently with Oncoprex without being modified in any way, and the antibodies used in our preclinical studies that did not use the marketed drugs were the non-humanized equivalent to marketed drugs.

Data from these clinical and preclinical studies indicate that combining Oncoprex with these other therapies yields results more favorable than either these therapies or Oncoprex alone, with minimal side effects relative to other lung cancer drugs, thereby

potentially making Oncoprex a therapy complementary to these cancer treatments. In addition, based on our clinical and preclinical studies and on preclinical studies conducted by others, we believe that Oncoprex could be combined with other lung cancer drugs that have similar mechanisms of action to the drugs mentioned above, such as pembrolizumab (marketed as Keytruda® by Merck & Co.), nivolumab (marketed as Opdivo® by Bristol-Myers Squibb Company) and atezolizumab (marketed as Tecentriq® by Genentech/Roche). We have not conducted any preclinical or clinical studies combining Oncoprex with pembrolizumab or atezolizumab.

Researchers at MD Anderson have collaborated with other researchers to identify other genes, such as those in the 3p21.3 chromosomal region, that may act as tumor suppressors or have other cancer fighting functions. We hold rights to certain of these genes under license agreements with MD Anderson. Data from preclinical studies performed by others suggest that product candidates that could be derived from our technology platform could be effective against other types of cancer, including breast, head and neck, renal cell (kidney), and soft tissue cancer, as well as NSCLC. Therefore, our platform technologies may allow delivery of a number of cancer fighting genes, alone or in combination with other cancer therapies, to combat multiple types of cancer.

MD Anderson researchers have completed the first phase of a Phase I/II clinical trial of Oncoprex in combination with erlotinib in patients with Stage IV (metastatic) or recurrent NSCLC that is not potentially curable by radiotherapy or surgery, whether or not they have received prior chemotherapy, and whether or not they have an activating EGFR mutation. The Phase I portion of the trial was a dose-escalating study with primary endpoints of establishing the safety and tolerability of the combination of Oncoprex and erlotinib, and establishing the Maximum Tolerated Dose, or MTD. The secondary endpoint of the Phase I portion of the trial was to assess the toxicity of the combination of Oncoprex with erlotinib. In the Phase I portion of the trial, which began in 2014, 18 subjects were treated, and the MTD was determined to be the highest tested dose: 0.6 mg/kg of Oncoprex administered every 21 days and 150 mg of erlotinib per day. Toxicities were found to compare favorably with those of other lung cancer drugs.

The Phase II portion of the trial is designed to include subjects treated with the combination of Oncoprex and erlotinib at the MTD with the primary goal of measuring the response rate, and secondary endpoints of stable disease, time to progression and overall survival. The response rate for cancer therapies is defined under the Response Evaluation Criteria in Solid Tumors, or RECIST, as Complete Response (CR) + Partial Response (PR); disease control rate is defined under the RECIST criteria as Complete Response (CR) + Partial Response (PR) + Stable Disease (SD)>8weeks.

Enrollment criteria for the second phase of the Phase I/II clinical trial are identical to those in the first phase. The Phase II portion of the trial began in June 2015 and is ongoing at MD Anderson. Of the 39 patients allowed in the protocol for the Phase II portion of the trial, 10 have been enrolled and nine are evaluable for response under the trial protocol, because they have received two or more cycles of treatment. Interim results show that four of the patients had tumor regression and one patient had a Complete Response, or CR under the RECIST criteria. The patient with the CR had disappearance of the lung primary tumor, as well as lung, liver, and lymph node metastases. The median response duration for all patients, which is defined as the median time between when response is first noted to the time when cancer progression is observed, was three months. The response rate for the nine patients evaluated to date was 11% and the disease control rate for the nine patients was 78%.

The response rate and disease control rate to date in the Phase II portion of our Phase I/II clinical trial substantially exceeds the response rate of 7% (with no CRs) and disease control rate of 58% reported for a clinical trial of the TKI afatinib (marketed as Gilotrif® by Boehringer Ingelheim Pharmaceuticals, Inc.) in a study referred to as the LUX-Lung 1 clinical trial. A total of 585 patients were enrolled in that Phase IIB/III clinical trial, whose primary endpoint was overall survival and whose secondary endpoints were progression-free survival, RECIST response, quality of life and safety. The LUX-Lung 1 clinical trial was a randomized, double blinded Phase IIB/III clinical trial treating subjects with Stage IIIB or IV adenocarcinoma, a type of NSCLC. The Phase II portion of our Phase I/II trial is not blinded, and is designed to treat NSCLC subjects regardless of EGFR status.

Preliminary analysis of the early data from the Phase II portion of our Phase I/II trial supports our belief that Oncoprex may provide medical benefit in several subpopulations of NSCLC patients for which there is an unmet medical need, and may provide pathways for accelerated approval by the US Food and Drug Administration, or FDA. As a result of these initial findings, in April 2016, we suspended enrollment of new patients in the Phase II portion of the trial to collect additional trial data and have it analyzed in order to seek FDA guidance as to whether the protocol for this clinical trial could be modified to expand enrollment and also to divide the patients into cohorts with a view toward seeking accelerated approval in one or more of these cohort populations. We have completed the collection and analysis of the additional preliminary data and expect to present our findings to the FDA within the next several months. Although this clinical trial is currently closed to new patient enrollment, it is not terminated, and is considered “ongoing” because activities such as patient follow-up and further data collection and analysis continue.

If we reach an agreement with the FDA regarding expanded patient enrollment and defined patient cohorts, we plan to amend the trial protocol accordingly and proceed with the amended protocol at MD Anderson and several additional clinical trial sites. Amendments to the Phase II clinical trial protocol will require approval of the Investigational Review Board, or IRB, of each site where the amended trial is conducted. If we do not reach an agreement with the FDA on these changes, then we plan to reopen enrollment in the current version of the Phase II portion of the trial at MD Anderson and at additional clinical trial sites. In that event, we will need to provide MD Anderson with plans and funding to move ahead with the trial. Whether under the original protocol or a revised protocol, we intend to use a portion of the proceeds of the recently completed initial public offering of our common stock to add additional clinical trial sites.

In 2012, MD Anderson researchers completed a Phase I clinical trial of Oncoprex as a monotherapy. The primary objective of this Phase I trial was to assess the toxicity of Oncoprex administered intravenously and to determine the MTD and recommended Phase II dose of Oncoprex alone. Secondary objectives were to assess the expression of TUSC2 following intravenous delivery of Oncoprex in tumor biopsies and also to assess the anticancer activity of Oncoprex. This trial demonstrated that Oncoprex was well tolerated and established the MTD and the therapeutic dosage for Oncoprex at 0.06 mg/kg administered every 21 days. Although this trial was not designed to show changes in outcomes, a halt in cancer growth was observed in a number of patients, and tumor regressions occurred in primary lung tumors and metastatic cancers in the liver, pancreas, and lymph nodes. In addition, pre- and post-treatment patient biopsies demonstrated that intravenous Oncoprex selectively and preferentially targeted patients' cancer cells, and suggested that clinical anti-cancer activity was mediated by TUSC2.

We believe that Oncoprex' combination of pan-kinase inhibition, direct induction of apoptosis, anti-cancer immune modulation and complementary action with targeted drugs and immunotherapies is unique, and positions Oncoprex to provide treatment for patients with NSCLC and possibly other cancers, who are not benefitting from currently offered therapies.

Our Oncoprex immunogene therapy technology was discovered through a lung cancer research consortium from MD Anderson and The University of Texas Southwestern Medical Center, or UTSWMC, along with the National Cancer Institute, or NCI. The TUSC2 discovery teams included Jack A. Roth, MD, FACS, chairman of our Scientific and Medical Advisory Board. We have assembled a team of experts in clinical and translational research, including laboratory scientists, medical oncologists and biostatisticians, to pursue the development and commercialization of Oncoprex and other potential product candidates.

Our technology discoveries and research and development programs have been the subjects of numerous peer-reviewed publications and have been supported by Small Business Innovation Research, or SBIR, grants and grants from the National Institutes of Health, the United States Department of Treasury, and the State of Texas. We hold a worldwide, exclusive license from MD Anderson to patents covering the therapeutic use of TUSC2 and other genes that have been shown to have cancer fighting properties, as well as a number of related technologies, including 30 issued patents, and two pending patent applications.

Our Pipeline

We are developing Oncoprex, our lead product candidate, to be administered with erlotinib for NSCLC. We are also conducting preclinical research with the goal of developing Oncoprex to be administered with immunotherapies in NSCLC. In addition, we have conducted research into other tumor suppressor genes associated with chromosome 3p21.3. Our research and development pipeline is shown below:

Our Strategy

We intend to develop and commercialize treatments for cancer based on our proprietary gene therapy platform, alone or in combination with other cancer therapies. Key elements of our strategy include:

- **Conduct Ongoing and New Clinical Trials.** We plan to continue clinical trials of Oncoprex immunogene therapy in combination with erlotinib for treatment of NSCLC, while exploring pathways to accelerated Food and Drug Administration, or FDA, approval of this combination in subpopulations of NSCLC patients for whom there is currently no approved therapy. We also plan to pursue a clinical trial of the combination of Oncoprex with anti-PD-1 immunotherapy. We may also pursue additional clinical trials of the combination of Oncoprex plus an immunotherapy called CTLA-4 immunotherapy, as well as possible multi-drug combinations of Oncoprex with additional targeted therapies and immunotherapies.
- **Investigate the Effectiveness of Oncoprex in Other Cancers.** We may also explore the combination of Oncoprex and erlotinib in other cancers such as soft tissue, kidney, head and neck, and/or breast cancer, and we may pursue development of additional proprietary genes alone or in combination with EGFR TKIs such as erlotinib and/or with immunotherapies.
- **Prepare to Commercialize Oncoprex.** We plan to continue to develop the manufacturing, process development and other capabilities needed to commercialize Oncoprex.
- **Pursue Strategic Partnerships.** As we gather additional clinical data, we plan to pursue strategic partnerships with other developers and providers of anti-cancer drugs to investigate possible therapeutic combinations of Oncoprex with drugs manufactured by others, to accelerate the development of our current and potential product candidates through co-development and to increase the commercial opportunities for our current and potential product candidates.
- **Develop Our Platform Technology.** We plan to investigate the applicability of our platform technology with additional anti-cancer drugs.

Current Treatment of Cancer

Chemotherapy is the standard treatment for the majority of NSCLC patients, as it is for many cancer patients. Because it is a systemic, rather than a targeted, approach to treating cancer, chemotherapy also kills healthy cells and has a number of other side effects.

A subset of NSCLC patients carry one or both of two EGFR mutations, referred to as exon 19 deletion and exon 21 substitution, which make their tumors sensitive to TKIs. Because EGFR is frequently overexpressed in lung tumors, it has become a favored therapeutic target for pharmaceutical companies. Several pharmacological and biological approaches, including TKIs, have been developed specifically to block activated EGFR for cancer therapy. The class of drugs functioning as protein kinase inhibitors, or KIs, comprises the majority of targeted therapies for lung cancer, accounting for most sales and use. Of the KIs, the TKI drugs are the most common, with drugs targeting EGFR kinases leading the sector growth. Several EGFR TKI therapies are marketed commercially including market leader erlotinib, gefitinib, afatinib and osimertinib.

A leading small molecule EGFR TKI is erlotinib, which is approved in the U.S and Europe as a first-line therapy in metastatic NSCLC patients with an activating EGFR mutation. Erlotinib was previously approved as a second-line treatment in patients with metastatic NSCLC after failure of at least one prior chemotherapy regimen. Erlotinib has been used to treat more than 400,000 lung cancer patients.

However, while erlotinib is most effective in patients who have an activating EGFR mutation and are therefore described as “EGFR positive,” it is significantly less effective in overall NSCLC populations and is generally not effective in patients without an activating EGFR mutation. Approximately 10% of NSCLC patients of North American and European descent and approximately 30% to 50% of NSCLC patients of Asian descent have the activating EGFR mutations. This means that the majority of NSCLC patients do not have activating EGFR mutations and are therefore “EGFR negative” and not optimal candidates for erlotinib and other TKIs.

In addition, even among those patients who are EGFR positive and benefit from erlotinib therapy, most eventually become resistant to and ultimately no longer respond to erlotinib therapy, resulting in eventual disease progression. Furthermore, clinical trials have shown that combining EGFR TKIs with conventional chemotherapy does not increase survival for lung cancer patients.

While next generation TKIs show promise in targeting resistant EGFR positive tumors that carry a mutation known as T790M, only about one-half of EGFR positive patients (5% to 7.5% of all NSCLC patients of North American and European descent and 15% to 25% of NSCLC patients of Asian descent) carry the T790M mutation. This leaves a significant majority of NSCLC patients—those who are EGFR negative and those who are EGFR positive but have become resistant to erlotinib and do not have the T790M mutation—without a targeted therapy for their cancer.

Our clinical and preclinical data indicate that the combination of our lead product candidate, Oncoprex, with erlotinib and other EGFR TKIs may increase anti-tumor activity in cancers with or without the EGFR mutations and in cancers that have become resistant to erlotinib therapy, thus expanding the number of patients who could benefit from those drugs.

TUSC2, the Active Agent in Oncoprex

TUSC2, which is the active agent in Oncoprex, is a multifunctional gene that plays a vital role in cancer suppression and normal cell regulation. Key TUSC2 anti-cancer mechanisms of action include the inactivation of multiple oncogenic kinases, the induction of apoptosis, the control of cell signaling and inflammation, and modulation of the immune system to fight cancer. Oncoprex has also been shown to block mechanisms that create drug resistance. Our data indicate that Oncoprex in combination with both EGFR TKIs and with immunotherapies achieve results more favorable than results achieved with either Oncoprex or such other therapies alone, and may make those drugs effective for patients who would not otherwise benefit from them.

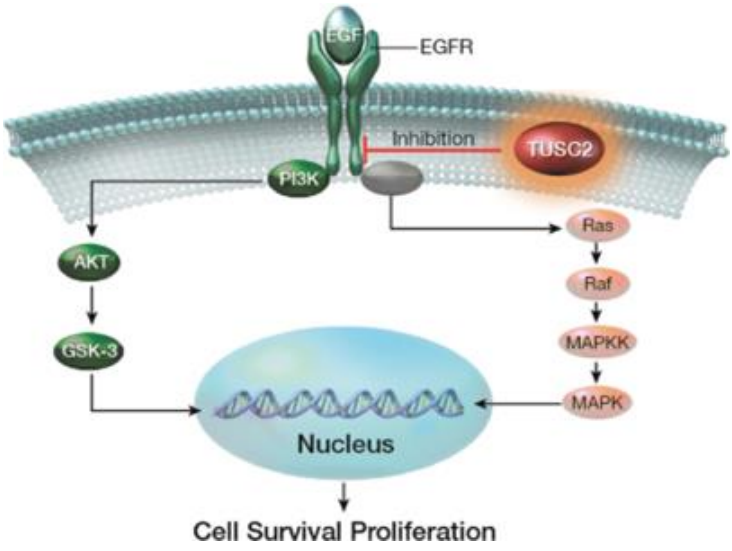
Normal TUSC2 function is inactivated at the early onset of cancer development, making TUSC2 a potential target for all stages of cancer, including metastatic disease. The TUSC2 protein is reduced or absent in approximately 85% of lung cancers. In patients with NSCLC, the loss of TUSC2 expression has been associated with significantly worse overall survival than when TUSC2 expression is not impaired.

Studies show TUSC2 protein functions as a key mediator in the Apaf1-mediated mitochondrial apoptosis pathway by recruiting and directing cytoplasmic Apaf1 protein to a critical cellular location and activating it *in situ* and by up-regulating activity of other proapoptotic effectors. Normal TUSC2 function mediates apoptosis in cancer cells through interaction with Apaf1 and down-regulates multiple tyrosine kinases including EGFR, AKT, PDGFR, c-Kit, and c-Abl. TUSC2 mediates apoptosis in cancer cells but not normal cells through its interaction with Apaf1 and down-regulates tyrosine kinases including EGFR, PDGFR, c-Kit, and c-Abl.

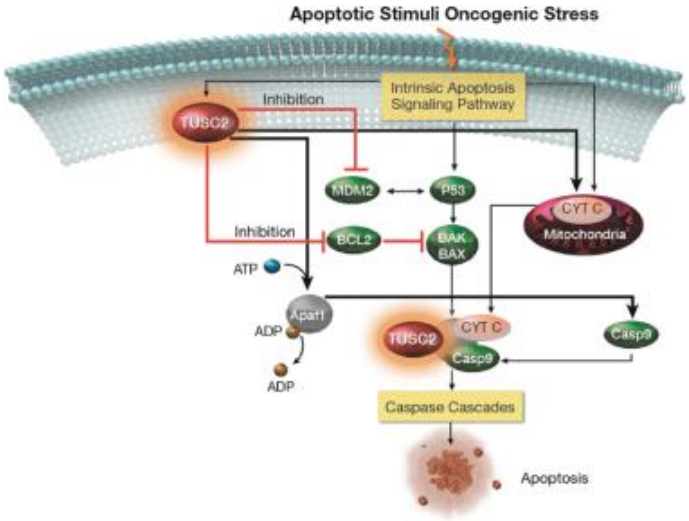
In normal cells, the proteins involved in the PI3K/AKT pathway (also called the mTOR pathway), in which PI3K, a kinase, generates messenger molecules required to translocate AKT, another protein kinase, to the cell's plasma membrane where it is phosphorylated and activated, play an important role in cellular function and cellular trafficking. These proteins are often found to be aberrantly active in cancers, causing cells to lose their ability to control cell growth, proliferation, and differentiation. Thus, mutations in PI3K (overexpression) and its upstream receptors, EGFR, have been associated with many forms of cancers.

Similarly, proteins in the Ras/MAPK pathway, which is a signal transduction pathway that transduces signals to the cell nucleus where specific genes are activated for cell growth, division and differentiation, play a critical role in cellular responses to various stress stimuli, including osmotic stress, DNA damage, and proinflammatory factors. As shown in the figures below, the TUSC2 protein, a potent pan-kinase inhibitor, blocks multiple cell signaling pathways downstream of the receptor (EGFR in the figures), leading to cell cycle interruption and thereby preventing cancer cell proliferation and survival.

Additionally, under stress conditions, such as oncogenic stress, cells go through a regulated process of programmed cell death, or cellular suicide, called apoptosis, in order to control cell development and replication. The TUSC2 protein interacts via various apoptotic signaling pathways to stimulate programmed cell death via the release of caspases, enzymes that play a significant role in apoptosis.



Pan-Kinase Inhibition by TUSC2



Stimulation of Apoptotic Signaling by TUSC2

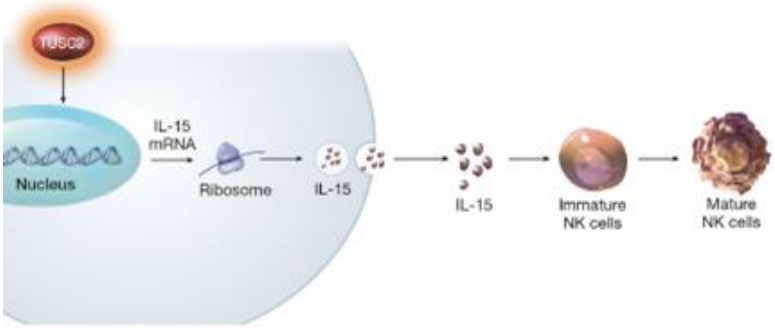
Cancer and the Immune Response

When functioning normally, the body's immune system recognizes and destroys cancer cells, as well as other mutated cells and foreign bodies. As cancer develops over time, some mutations in cancer cells enable them to inhibit immune mechanisms, thus allowing the cancer cells to escape detection and destruction by the immune system and leading to the cancer's "immune tolerance." Therapies are being developed to allow patients to overcome this immune tolerance, some by stimulating the natural immune response and others by removing the inhibitions on the immune response created by the cancer. For example, PD-1 is a protein found on certain types of T cells, which are part of the immune system. Because PD-1 prevents T cells from attacking other cells, including in some cases cancer cells, inhibiting PD-L1 receptors, a process called PD-1 checkpoint inhibition, can facilitate the immune response to cancer.

In addition to its pro-apoptotic cytotoxicity and tyrosine kinase inhibitory activity, TUSC2 enhances the immune response to cancer. Data from preclinical studies at MD Anderson have shown a therapeutic benefit from the combination of TUSC2 and anti-PD-1 antibody and a key role for TUSC2 in regulating immune cell subpopulations including cytokines, natural killer, or NK, cells, and T lymphocytes. In addition, TUSC2 has been found to down-regulate PD-L1 receptors on the surface of cancer cells.

NK cells, an important part of the innate immune system, have developed several mechanisms to distinguish healthy cells from target cells. These mechanisms allow NK cells to kill cells that are deemed dangerous to the host, including cancer cells. However, one of the consequences of malignant transformation is the ability of the cancer cell to evade the immune system. Cancer cells do so via the up-regulation and interplay of receptors, including checkpoint inhibitors such as PD-1 and PD-L1.

As shown in the illustration below, TUSC2 has been found to stimulate the release of interleukin-15, or IL-15, resulting in up-regulation of mature NK cells that circulate and target cancer cells.



Modulation by TUSC2 of the Immune Response to Cancer

The Genprex Platform and Oncoprex

Genprex is developing a novel approach to cancer treatment, based on our immunogene therapy platform, which is designed to deliver any of a number of cancer fighting tumor-suppressor genes, alone or in combination with other cancer therapies, to combat multiple types of cancer. The Genprex platform consists of anti-cancer genes encapsulated in nanovesicles that can be delivered intravenously.

Our lead product candidate, Oncoprex, is the TUSC2 gene, as the active anti-cancer agent, encapsulated into nanovesicles made from fat molecules with a positive electrical charge formulated for intravenous administration. In our ongoing Phase II clinical trial Oncoprex is injected intravenously approximately every 21 days for as long as the patient continues to benefit, which is defined as tumor size stabilization or shrinkage.

Oncoprex has a multimodal mechanism of action whereby it interrupts cell signaling pathways that cause replication and proliferation of cancer cells, re-establishes pathways for programmed cell death, or apoptosis, in cancer cells, and modulates the immune response against cancer cells. Oncoprex has also been shown to block mechanisms that create drug resistance.

Oncoprex is a pan-kinase inhibitor shown to simultaneously inhibit the EGFR and AKT oncogenic kinase pathways *in vitro* and *in vivo*. Once the cancer cell takes up the nanovesicle containing TUSC2, it is reprogrammed to die. Resistance to targeted drugs and checkpoint inhibitors develop through activation of alternate bypass pathways. For example, when PD-1 is blocked, the TIM-3 checkpoint is up-regulated. We believe that Oncoprex' multimodal activity will block emerging bypass pathways, reducing the probability that drug resistance develops.

Our cancer gene therapy platform and its delivery system are highly targeted. While the TUSC2 gene induces apoptosis in cancer cells which have low or absent TUSC2 expression, TUSC2 delivered by nanovesicles to normal cells is not toxic. Moreover, the nanovesicles are taken up by tumor cells after Oncoprex treatment at 10 to 25 times the rate at which they are taken up by normal cells, because of selective endocytosis, or enveloping by the cell, of the nanovesicle lipid formulation and the enhanced permeability and retention, or EPR, characteristics of tumor vasculature, without the need for external ligands, or binding molecules. Pre- and posttreatment biopsies following intravenous injection of Oncoprex in a phase 1 clinical trial showed robust TUSC2 protein expression in cancer cells at both primary and metastatic tumor sites.

Our preclinical and clinical data indicate that Oncoprex is well tolerated and may be effective alone or in combination with targeted small molecule therapies, thereby facilitating the action of both drugs, allowing use in expanded populations of patients who may benefit from advanced therapy regimens.

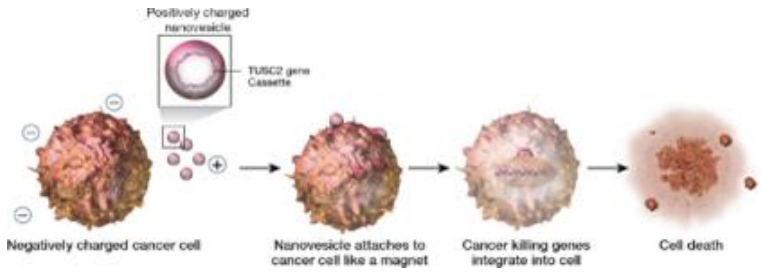
Data have shown that when Oncoprex is combined with EGFR TKI therapy, such as erlotinib, in EGFR mutated resistant cancers, the combination therapy overcomes intrinsic and acquired therapeutic resistance by simultaneously inactivating the EGFR and the AKT signaling pathways to restore apoptotic signaling. Overcoming EGFR resistance in a clinical setting could provide a path for approval of Oncoprex for patients who do not have an activating EGFR mutation (90% of patients of American and European descent and 50% to 70% of those of Asian descent) and/or for patients who have an activating EGFR mutation but who have become resistant to erlotinib.

Clinical and preclinical data indicate that Oncoprex, when combined with EGFR TKIs such as erlotinib and gefitinib, provides a synergistic effect that could also benefit the larger population of NSCLC patients who are EGFR negative (which means they are not expected to benefit from EGFR TKI drugs alone). Further, our data show that Oncoprex may re-sensitize EGFR positive patients who become resistant to, and therefore no longer benefit from, EGFR TKIs alone. Thus, Oncoprex may both significantly expand the benefit of EGFR TKIs to the majority of patients (90% of those of American and European descent and 50% to 70% of those of Asian descent) who do not have EGFR activating mutations and would therefore not otherwise be expected to benefit from EGFR TKI drugs, and also extend the usefulness and benefit of EGFR TKIs for the population of NSCLC patients who are EGFR positive, but who do not have the T790 mutation and who have become refractory to erlotinib, for whom there is currently no well-accepted standard treatment other than chemotherapy.

Many currently approved cancer therapeutics target only single molecules or a single specific genetic abnormality related to driving the proliferation and survival of cancer cells. In contrast, Oncoprex works by targeting several molecules within the cancer cell to interrupt cell signaling pathways that cause replication and proliferation of cancer cells, to target and kill cancer cells, to block mechanisms that create drug resistance and to stimulate the natural immune response. Moreover, clinical and preclinical data show that Oncoprex works with other cancer drugs or their non-humanized equivalents, to produce more effective anti-cancer effects than either produces alone. In conjunction with these other drugs and equivalents, Oncoprex has been shown to mediate an anti-tumor response through up-regulation of NK cells, CD8+ T cells, and down-regulation of regulatory T cells, or Tregs, and PD-L1 receptors, activate alternative immune mechanisms with the potential to complement checkpoint inhibitors. Published data indicate that effectiveness of these kinase inhibitors and immunotherapy drugs is enhanced when they are combined with Oncoprex.

Delivery System

The Genprex immunogene therapy platform consists of anti-cancer genes encapsulated in nanovesicles delivered intravenously. The Oncoprex TUSC2 gene is encapsulated in a positively charged nanovesicle that binds to actively replicating (and therefore negatively charged) cancer cells, and then enters the cancer cell through selective endocytosis. These nanoscale vesicles differ significantly from liposomes historically used for drug delivery in that they are true particles encapsulating the therapeutic payload within a bilamellar lipid coat. Our collaborators at MD Anderson have optimized the characteristics of lipids including N-(1-(2,3-Dioleoyloxy)propyl)-N,N,N-trimethylammonium methyl sulfate, or DOTAP:cholesterol and a DNA plasmid expressing the TUSC2 tumor suppressor gene which form a spherical particle with a hollow center, nanoscale in size, which encapsulates the TUSC2 gene for delivery as Oncoprex.



Operation of the Oncoprex TUSC2 Nanovesicle Delivery System

The particle size is small enough to allow Oncoprex to cross tight barriers in the lung, but large enough to avoid accumulation or clearance in the liver, spleen and kidney. The cationic (positive) charge of the nanovesicle targets cancer cells, and direct nanovesicle fusion avoids target cell endocytosis. A Phase I clinical trial showed that intravenous Oncoprex therapy selectively and preferentially targeted primary and metastatic tumor cells, resulting in anticancer activity. The nanovesicles are non-immunogenic, allowing repetitive therapeutic dosing and providing extended half-life in the circulation.

We believe that the nanovesicles used in Oncoprex are applicable to delivery of a range of therapeutic and prophylactic plasmid DNAs and RNA interference constructs. The nanovesicle manufacturing methods we and our collaborators have developed have been optimized and we believe they may be useful for a wide array of disease treatments. Clinical outcomes demonstrated that the delivery system used in Oncoprex is well tolerated in humans and can deliver high therapeutic doses. The nanovesicle delivery system and safety database may be attractive to drug developers because it overcomes historical technological boundaries with lipid-based delivery systems.

Platform Technologies

We hold an exclusive worldwide license to patents covering the therapeutic use of a series of genes in the 3p21.3 region of the human chromosome, including TUSC2, that have been shown in preclinical and clinical research to have cancer fighting properties. While we are initially targeting NSCLC, data from preclinical studies conducted by others indicate that product candidates derived from our immunogene therapy platform may also be effective with respect to other types of cancer, including soft tissue, kidney, head and neck, and breast cancer. Preclinical and clinical data also indicate that our current and potential product candidates are complementary to other successful cancer drugs. Therefore, our platform technologies may allow delivery of any of a number of
cancer fighting genes, alone or in combination with other cancer therapies, to combat multiple types of cancer. In addition, we plan to investigate biomarkers to predict response and additional immunotherapies to combine with Oncoprex.

Preclinical and Clinical Development, Rationale and Strategy

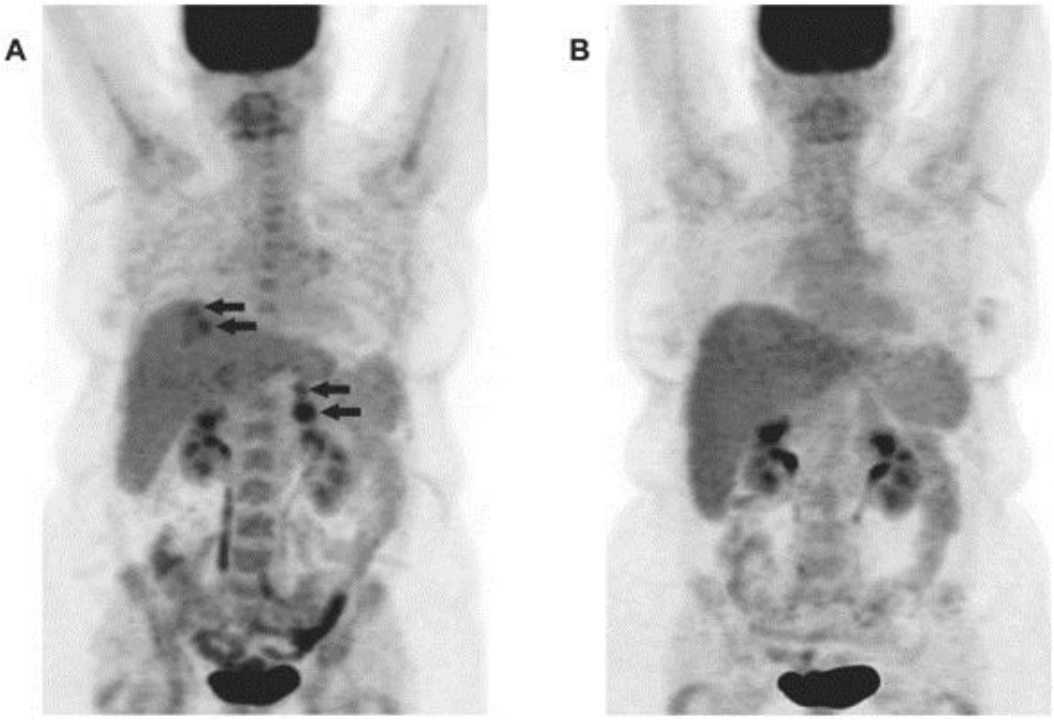
Phase I Monotherapy Clinical Trial

In 2012, MD Anderson researchers completed a Phase I clinical trial of Oncoprex as a monotherapy. The primary objective of this Phase I trial was to assess the toxicity of Oncoprex administered intravenously and to determine the maximum tolerated dose, or MTD, and recommended Phase II dose, of Oncoprex alone. Secondary objectives were to assess the expression of TUSC2 following intravenous delivery of Oncoprex in tumor biopsies and also to assess the anti-cancer activity of Oncoprex, although the study was not designed to show changes in outcomes. This trial demonstrated that Oncoprex was well tolerated and established the MTD and the therapeutic dosage for Oncoprex at 0.06 mg/kg administered every 21 days. Although this trial was not designed to show changes in outcomes, a halt in cancer growth was observed in some patients. Tumor regressions occurred in primary lung tumors and metastatic cancers in the liver, pancreas, and lymph nodes. In addition, pre- and posttreatment patient biopsies demonstrated that intravenous Oncoprex selectively and preferentially targeted patients' cancer cells, and suggested that clinical anti-cancer activity was mediated by TUSC2.

In the Phase I Monotherapy Trial, Oncoprex was injected intravenously in stage IV (metastatic) lung cancer patients who had received traditional platinum combination chemotherapy but still showed tumor progression at the time of entry into the study. Oncoprex was manufactured in GMP facilities to meet specifications of size, appearance, and transfection efficiency. During the trial, manufacturing was transferred from Baylor College of Medicine to MD Anderson, thus confirming reproducibility of the manufacturing process. Subjects received escalating doses ranging from 0.01 mg/kg to 0.09 mg/kg at three-week intervals for a maximum of six cycles of a dose every three weeks. Fever is a common reaction to intravenous drug administration; accordingly, dexamethasone, a steroid, and diphenhydramine, an antihistamine, were administered as a standard treatment to prevent fever and eliminated the only clinically significant toxicity of fever.

In the Phase I Monotherapy Trial, 31 subjects were treated at six dose levels ranging from 0.01 to 0.09 mg/kg. Seventy percent of subjects had received two or more prior chemotherapy regimens. Among four subjects treated without the fever-reducing premedications, all four subjects developed grade 2 or higher fevers within 24 hours of treatment. Among the 27 subjects premedicated with the fever-reducing premedications, the highest fever was grade 2, which occurred in two subjects. The only serious adverse events, defined as grade 3, 4 or 5 events under the Common Terminology Criteria for Adverse Events, or CTCAE, published by the U.S. Department of Health and Human Services, were grade 3 fever (experienced by three patients) and grade 3 hypotension (experienced by 1 patient). The only dose-limiting toxicities were two episodes of transient grade 3 hypophosphatemia (abnormally low levels of phosphate in the blood) resulting in an MTD of 0.06 mg/kg. Twenty-three subjects received two or more doses, of whom five subjects, or 22% of the 23 subjects, achieved disease control for periods ranging from 2.6 months to 10.8 months. The median disease control period for these subjects was 5.0 months (95% CI: 2.0-7.6), while the other 18 subjects' cancer progressed during the Phase I Monotherapy Trial. Disease control for cancer therapies is defined under the Response Evaluation Criteria in Solid Tumors, or RECIST, as Complete Response (CR) + Partial Response (PR) + Stable Disease (SD)>8weeks). Median survival for all subjects in the Phase I Monotherapy Trial was 8.3 months (95% CI 6.0-10.5 months) and mean survival time was 13.2 months (95%CI 8.9-7.5 months) with a range of two to 23+ months.

Two subjects had reductions in primary tumor size of 14% and 26%. One subject with stable disease, a 54-year-old female with a large cell neuroendocrine carcinoma who received 12 cycles of Oncoprex therapy, had evidence of a durable metabolic response, which is a lasting reduction of metabolic activity in the tumor, as shown by positron emission tomography, or PET, imaging. The response was documented with PET scans performed after the second, fourth and sixth doses, all showing decreased metabolic activity in the tumor with no changes in size or number of metastases by computed tomography, or CT, imaging. The illustration below is of the PET scan of this subject performed after the fourth dose. This subject had received six prior chemotherapy regimens. Prior to entry in the Phase I Monotherapy Trial, two hepatic metastases were progressing on gemcitabine. The subject also had a metastasis in the head of the pancreas and a peripancreatic lymph node, shown by the arrows in the illustration below. Illustration A shows the pretreatment PET scan. The dose of Fluorodeoxyglucose (18F) was 8.8mCi. Illustration B shows the post treatment PET scan performed 20 days following the fourth dose of Oncoprex. The dose of Fluorodeoxyglucose (18F) was 9.0mCi. All scans were performed within a 60 to 90 minute window after injection.

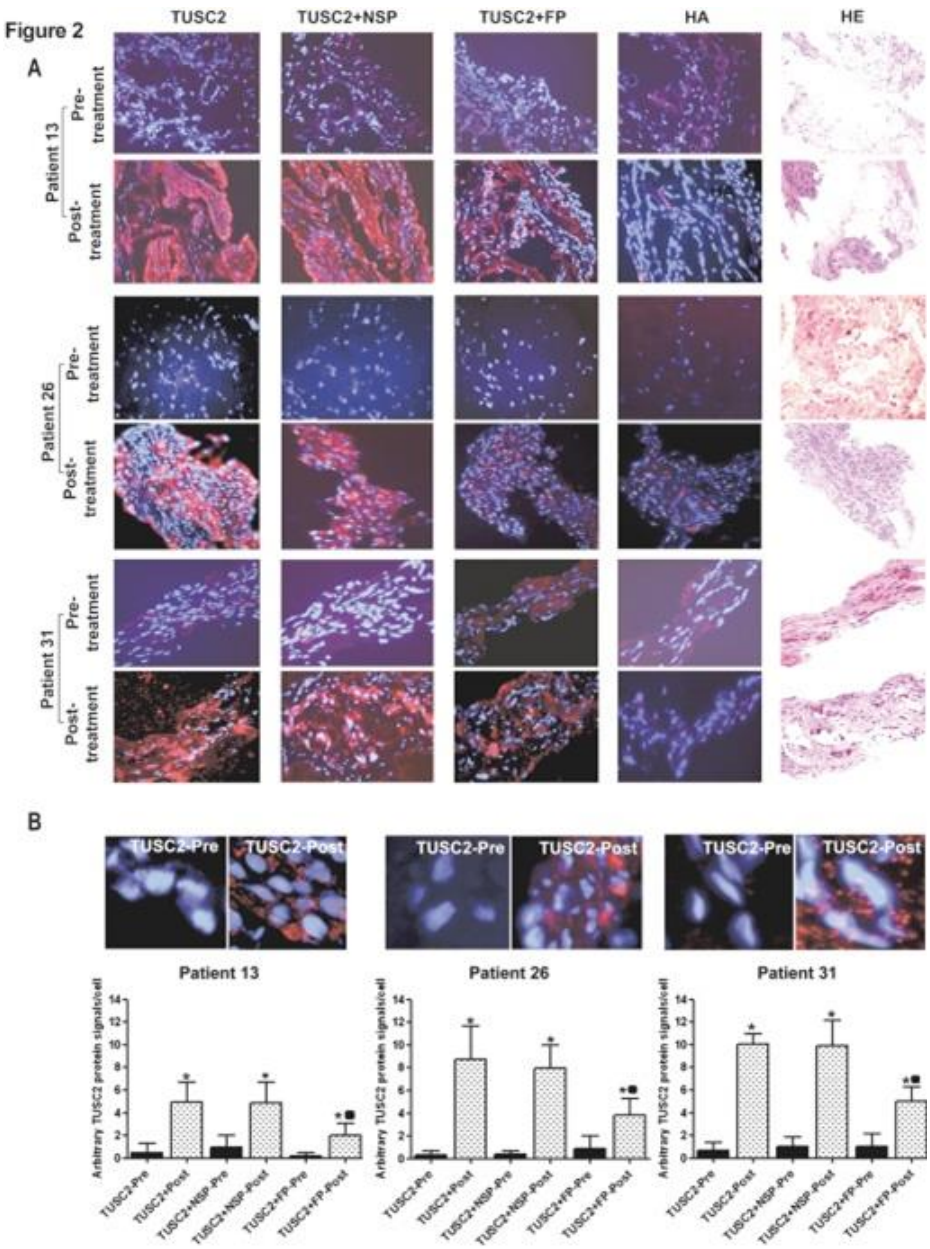


Metabolic Tumor Response in a Metastatic Lung Cancer Subject

This subject remains alive after subsequent therapy more than seven years after the final treatment with Oncoprex, to our knowledge, without evidence of cancer progression in the responding sites.

To test whether the TUSC2 gene introduced by Oncoprex therapy was expressed following Oncoprex therapy in the Phase I Monotherapy Trial, pre-treatment and 24-hour post-treatment tumor biopsies were obtained from seven subjects by percutaneous CT guidance from a central tumor location. A quantitative real time reverse transcriptase PCR, or RT-PCR, analysis using a plasmid TUSC2 sequence-specific probe was performed on samples blinded to time of biopsy. The RT-PCR analysis detected high levels of TUSC2 plasmid expression in six of seven post-treatment tumor specimens but not in pretreatment specimens or negative controls.

In addition, an *in situ* proximity ligation assay, or PLA, performed on paired biopsies from three subjects, demonstrated no TUSC2 protein staining in pre-treatment tissues compared with intense TUSC2 protein staining in post-treatment tissues. For the PLA, anti-TUSC2 polyclonal antibodies were developed to detect the presence of TUSC2. Pre-treatment and post-treatment biopsies were obtained from three patients. The top panel for each patient in the illustration below represents the pre-treatment biopsy "controls" with DAPI, a type of blue stain. The bottom panel for each patient are post-treatment biopsies, and represent overlays of blue DAPI staining and red anti-TUSC2 antibody staining. The blue stains in the top panels indicate the absence of TUSC2 in the pre-treatment biopsies, and the red and purple (red overlaying blue) stains in the bottom panels indicate the presence of TUSC2 in robust quantities in the post-treatment biopsies, showing that TUSC2 was successfully introduced into the tumors in the Phase I Monotherapy Trial.



Proximity Ligation Assay (PLA) for TUSC2 protein in tumor biopsies

An RT-PCR gene expression profiling analysis of apoptotic pathway genes in a paired specimen showing high post-treatment levels of TUSC2 mRNA and protein in one subject also showed up-regulation and downregulation of certain genes involved in both the intrinsic and extrinsic apoptotic pathways. Antibodies to single and double stranded DNA were not detected 14 months after completion of 12 cycles of therapy in the subject, indicating that within that period no anti-DNA antibodies had developed. The conclusion from the Phase I Monotherapy Trial was that Oncoprex administered intravenously in lung cancer patients was well tolerated with demonstrable gene delivery to tumors with protein expression and evidence of antitumor activity. Although the number of biopsies was limited due to regulatory constraints, the consistent results across test platforms suggests that these observations are reliable.

Based on the positive results from the Phase I Monotherapy Trial and preclinical data from studies of the combination of Oncoprex plus EGFR TKI drugs, we are evaluating Oncoprex as a lung cancer therapeutic to be used in combination with the EGFR kinase inhibitor erlotinib in our ongoing Phase I/II Combination Therapy Trial.

Preclinical Studies

Investigators at MD Anderson conducted preclinical research showing that Oncoprex alone blocked the activation of the c-Abl tyrosine kinase. A number of other studies at MD Anderson have demonstrated the complementary effects of Oncoprex combined with a variety of targeted kinase inhibitory agents, both marketed and in various stages of clinical development, including erlotinib, gefitinib, MK2206 and others. Researchers investigated the use of Oncoprex combined with commercially available EGFR TKI drugs erlotinib and gefitinib, and conducted preclinical *in vitro* and *in vivo* studies combining Oncoprex with these drugs in a variety of human lung cancer cell lines, including cancers with activating EGFR mutations and EGFR mutation negative cancers. Lung cancers known to have intrinsic and acquired resistance to erlotinib therapy were also studied, as were Kras-related and other cancers. Notably, studies in xenograft animal models demonstrated that Oncoprex and either erlotinib or gefitinib showed synergistic anti-cancer effects, superior to either agent used alone, in both EGFR mutation negative cancers (generally not candidates for erlotinib) and in EGFR mutation positive cancers (optimal candidates for erlotinib), including cancers known to be resistant to erlotinib therapy. The addition of Oncoprex to either erlotinib or gefitinib overcame drug-induced resistance by simultaneously inactivating EGFR and AKT signaling pathways and by inducing apoptosis in erlotinib- or gefitinib-resistant cancers with EGFR mutations and with EGFR mutation-negative cancers.

In one study, MD Anderson researchers tested the combination of erlotinib and Oncoprex against five human NSCLC cell lines: H1299, H322, A549, H460, and H1975, the latter of which has the L858R and T790M EGFR mutations and is highly resistant to erlotinib. The results showed that the combination of Oncoprex and erlotinib significantly reduced NSCLC colony formation beyond the effect of erlotinib, Oncoprex or controls alone ($p<0.01$ at both 1 and 2.3 uM concentrations for all cell lines). The cooperative interaction between erlotinib and Oncoprex was confirmed *in vivo* using a lung colony formation metastases model in nu/nu mice with A549 human lung cancer cells injected in the tail vein. Mice were treated with the combination of Oncoprex and erlotinib and various controls including empty nanovesicles, erlotinib alone, Oncoprex alone, and other controls.

The greatest reduction in lung colonies occurred with the Oncoprex with erlotinib combination (90% reduction) which was reduced compared to all control groups ($p<0.0005$). In terms of total tumor nodules, the cooperative effect is greater than 0.9999. This means that there is less than a 1 in 10,000 chance that the low dose erlotinib with TUSC2 combination does not have a cooperative effect and greater than 9,999 in 10,000 chance that the cooperative effect exists. P-value is the probability that the difference between two data sets was due to chance. The smaller the p-value, the more likely the differences are not due to chance alone. In general, if the pvalue is less than or equal to 0.05, the outcome is considered statistically significant. The FDA's evidentiary standard of efficacy generally relies on a p-value of less than or equal to 0.05.

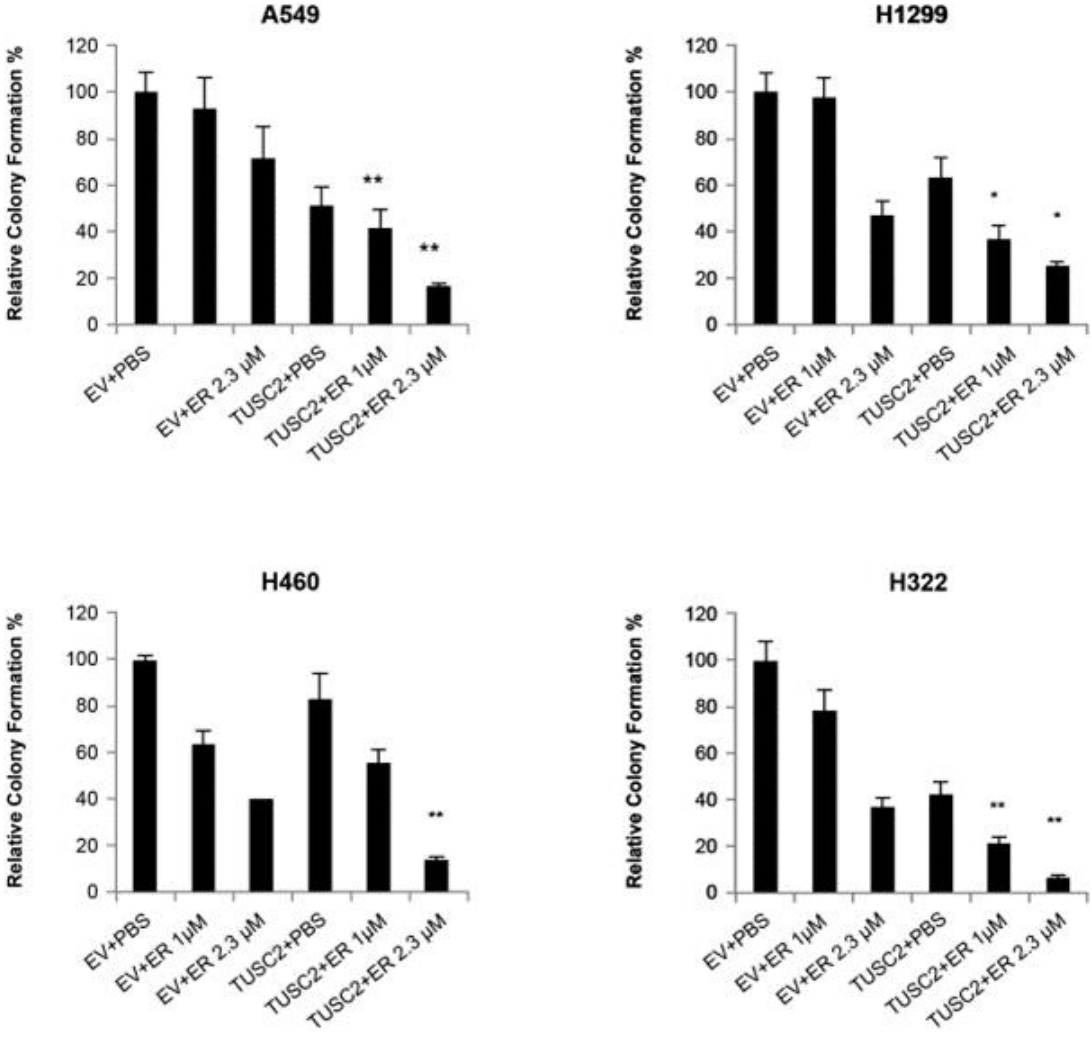
MD Anderson researchers also tested Oncoprex in TUSC2-deficient and erlotinib or gefitinib-resistant NSCLC cell lines. Treatment of the NSCLC EGFR mutation negative cell lines H1299, H322, H358 and H460 cancer cell line showed that the Oncoprex combination significantly sensitized ($p<0.001$) response of the cancer cell lines to both erlotinib or gefitinib treatment and synergistically induced apoptosis *in vitro*. The findings were confirmed *in vivo* in an H322 orthotopic lung cancer mouse model. These studies included the K-ras mutant cell line H460, which is significant because patients with K-ras mutant tumors are generally unresponsive to erlotinib or gefitinib. Synergistic induction of apoptosis was observed with the combination of Oncoprex and concentrations of erlotinib or gefitinib similar to steady-state serum concentrations achievable with oral dosing. The combination of Oncoprex and either erlotinib or gefitinib induced similar levels of tumor cell growth inhibition, apoptosis induction, and inactivation of oncogenic protein kinases.

Data from these and other MD Anderson studies suggest a combination of Oncoprex with gefitinib or erlotinib can promote synergistic tumor cell killing and overcome drug-induced resistance by simultaneously inactivating the EGFR and the AKT signaling pathways and by inducing apoptosis in resistant cells with nonmutated EGFR. These data suggest that NSCLC patients with an activating EGFR mutation, whose cancer progresses on erlotinib, may potentially benefit from Oncoprex with erlotinib combination therapy. These data also suggest that NSCLC patients without an activating EGFR mutation (generally unresponsive to erlotinib) may potentially benefit from Oncoprex with erlotinib combination therapy.

In another study, MD Anderson researchers analyzed the effects of TUSC2 re-expression on the sensitivity of tumor cells to the AKT inhibitor MK2206 in vitro and in mice. The AKT pathway is an important intracellular, converging positive regulator of apoptosis. AKT stimulates apoptosis and is frequently dysregulated in cancers, and this has been associated with reduced sensitivity to anti-tumor drugs. The study showed that the combination of TUSC2 transfection with MK2206 treatment suppressed tumor cell viability in vitro and effectively inhibited xenograft tumor growth in vivo more effectively than either agent alone.

Preclinical Study Showing that the TUSC2-Erlotinib Combination Significantly Inhibits Tumor Cell Viability and Colony Formation in NSCLC Cells Without an Activating EGFR Mutation

Previous research has shown that NSCLC in cells that lack the activating EGFR mutations exon 19 deficiency and exon 21 substitution is not halted or inhibited by erlotinib at pharmacologically relevant doses. In one preclinical study, MD Anderson researchers tested a group of EGFR negative NSCLC lines for sensitivity to erlotinib after restoration of TUSC2 expression, both transiently and stably, and found a significant benefit resulting from the combination at micromolar ranges between 1uM and 2.3uM. These concentrations are achievable in patient serum with standard dosing regimens and are pharmacologically relevant. Cell viability was evaluated in 3 TUSC2 Tet-On stable clones that had been treated with doxycycline to induce TUSC2, and combined with erlotinib. As expected, the cells that had not had TUSC2 expression restored were not sensitive to erlotinib alone, and the viability of cells in the A549, H1299, and H175 cancer cell lines was 92%, 90%, and 98%, respectively. Induction of TUSC2 with doxycycline alone showed more cytoxicity than erlotinib alone, resulting in 16%, 22%, and 5% cell death, respectively. However, when cells were exposed to doxycycline and treated with 2.3 μM erlotinib for 48 hours, a growth inhibitory effect was observed for all three cell lines ($p<0.05$), with the relative survival of the A549, H1299, and H175 cancer cells being reduced by 48%, 42%, and 38%, respectively. Similarly, as shown in the graphs below, colony formation was significantly inhibited in cells transiently transfected with TUSC2 and treated with erlotinib. The ability of A549, H1299, H322, and H460 cells to form colonies was reduced by 90%, 80%, 93%, and 85%, respectively. In dose titration experiments erlotinib also mediated increased inhibition of colony formation at nanomolar concentrations. Taken together, the results clearly demonstrate the superiority of the TUSC2-erlotinib combination treatment over each agent alone, and indicate that the effect is independent of the technique of exogenous gene expression. For both viability and colony formation assays the probability of a cooperative effect was greater than 0.99, on a scale from 0 to 1. Zero means no probability of a true cooperative effect, and one means 100% probability of a cooperative effect given the observed data.



Inhibition of Colony Formation by a Combination of TUSC2 and Erlotinib

In the graphs above, “EV” means DOTAP: cholesterol (DC)—empty vector (EV) complex (the Oncoprex nanovesicle without the TUSC2 gene), “PBS” means phosphate-buffered saline, and “EV + PBS” means EV and PBS, acting as a control; “ER” means erlotinib; “*” means $p<0.05$; and “**” means $p<0.01$.

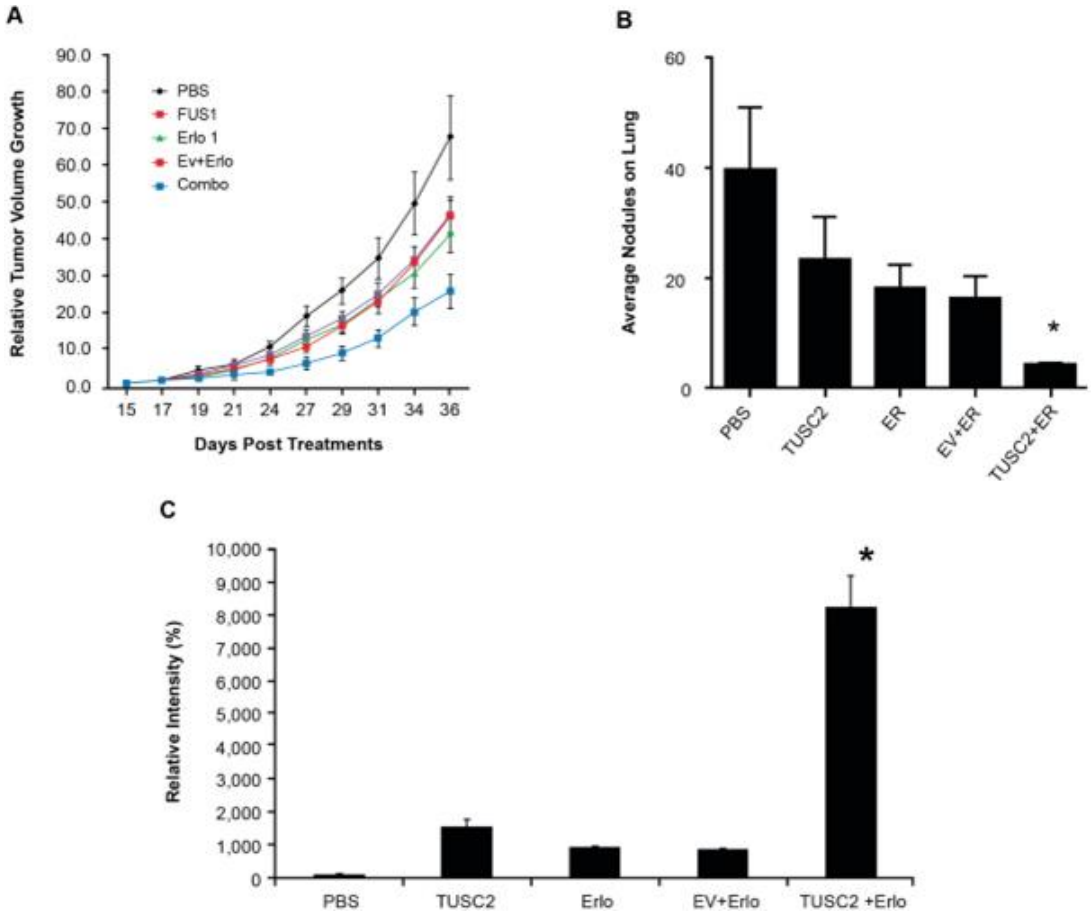
TUSC2-Erlotinib Combination Significantly Inhibits Tumor Growth and Metastasis and Induces Apoptotic Activity

In another preclinical study, MD Anderson researchers analyzed the effect of the combination of TUSC2 and erlotinib on inhibiting tumor growth and metastasis in two NSCLC mouse xenograft models. Mice with established flank tumors of equal volumes were divided into different treatment groups: PBS, used as a control; DC-TUSC2 complex (Oncoprex), referred to in the graphs below as “Fus1” or “TUSC2”; erlotinib alone, referred to in the graphs as “Erlo” or “ER”; DOTAP:cholesterol (DC)—empty vector (EV) complex with erlotinib, referred to as “EV + Erlo” or “EV + ER”; and Oncoprex plus erlotinib, referred to as “Combo,” “TUSC2 + ER” or “TUSC2 + Erlo.” In the H322 subcutaneous xenograft model, the combination of intravenous Oncoprex and erlotinib was significantly superior ($p<0.05$) in reducing tumor volumes than either agent alone, as shown by graph A below. With adjustment for multiple comparisons, the tumor growth rate of Oncoprex and erlotinib combination was the only group significantly smaller than the PBS control group ($p<0.01$). The mean tumor volume was 421.25±89.27 mm3, compared with 1082.50±338.69 mm3, 801.25±144.60 mm3, 675.00±228.80 mm3, and 875.00±267.85 mm3, in their counterparts receiving PBS, Oncoprex, erlotinib, or EV + erlotinib, respectively. In terms of tumor size, the posterior probability of cooperative effect was 0.9928, which means that there were less than 100 in 10,000 chances that the effect of TUSC2-erlotinib combination was not cooperative.

MD Anderson researchers also developed a lung metastasis xenograft mouse model, using the human TUSC2-defective, EGFR negative A549 NSCLC cell line. Animals were treated with the same protocol as their subcutaneous counterparts. The number of tumor nodules on lung surfaces was reduced by 82% after TUSC2-erlotinib treatment, compared to 41% and 54%, for TUSC2 alone or erlotinib treatment alone, respectively, as shown in graph B below. The overall difference of the tumor nodule count among the five groups was significant ($p<0.0001$), as was the difference between the Oncoprex and erlotinib combination group compared to each of the other groups ($p<0.01$).

As shown in graph C below, in resected tumor tissues assayed by TUNEL, the average number of apoptotic cells in the TUSC2 + erlotinib group was many times higher than in any of the other groups, including the groups receiving erlotinib alone and USC2-nanovesicles alone.

These results show that the growth inhibitory benefit of TUSC2-erlotinib *in vitro* could be reproduced *in vivo* and validate the effects of this combination.



Inhibition of Tumor Growth and Metastasis, and Induction of Apoptotic Activity, by a Combination of TUSC2 and Erlotinib

In graphs B and C above, "*" means $p<0.05$; the values in graph C above represent percentages from at least 1000 counted cells.

Phase I/II Combination Clinical Trial: TUSC2 Nanovesicles with Erlotinib

Phase I Combination Trial

The Phase I Monotherapy Trial showed that Oncoprex is well tolerated, that high levels of TUSC2 expression are detected in the tumor post-treatment, and that there is evidence of tumor growth suppression. Based on the positive results from the Phase I Monotherapy Trial and substantial preclinical evidence that Oncoprex is complementary with EGFR TKIs, we obtained permission from FDA to begin a new Phase I/II trial at MD Anderson combining Oncoprex with erlotinib in patients with Stage IV (metastatic) or recurrent NSCLC that is not potentially curable by radiotherapy or surgery, whether or not they have received prior chemotherapy, and whether or not they have an activating EGFR mutation. This trial is referred to as the Phase I/II Combination Trial. Enrollment in the Phase I portion of the Phase I/II Combination Trial, referred to as the Phase I Combination Trial, commenced in 2014 at MD Anderson with Dr. Charles Lu as the Principal Investigator.

In the Phase 1 Combination Trial, 18 subjects were treated with the following dose levels:

Dose Level	Drug Doses
1	erlotinib (100 mg/day) + Oncoprex (0.045mg/kg)
2	erlotinib (100 mg/day) + Oncoprex (0.06mg/kg)
3	erlotinib (150 mg/day) + Oncoprex (0.045mg/kg)
4	erlotinib (150 mg/day) + Oncoprex (0.06mg/kg)

As in the Phase I Monotherapy Trial, subjects received a pre-treatment regimen of oral and intravenous dexamethasone and diphenhydramine to reduce fever, along with an infusion of Oncoprex every three weeks. Subjects received oral erlotinib daily during each three-week cycle during the treatment period.

The Phase I Combination Trial was also a dose escalation study with the primary purpose of determining the MTD. Dose Limiting Toxicities were defined as grade 3, 4, or 5 events during the first cycle of treatment that were considered to be treatment related. At dose level 1 (Oncoprex .045 mg/kg plus erlotinib 100 mg), one subject had grade 3 adverse events of fatigue, muscle weakness, and hyponatremia (low sodium level) considered to be related to the study treatment (erlotinib); therefore, three additional subjects were treated at this dose level (six subjects total), none of whom suffered a Dose Limiting Toxicity. At dose level 2 (Oncoprex .06 mg/kg plus erlotinib 100 mg), there were no Dose Limiting Toxicities. At dose level 3 (Oncoprex .45 mg/kg plus erlotinib 150 mg), one subject had a grade 3 rash considered to be related to the study treatment (erlotinib); therefore, an additional three subjects were treated at this dose level (six subjects total). No additional subjects suffered a Dose Limiting Toxicity at dose level 3. At dose level 4 (Oncoprex .06 mg/kg plus erlotinib 150 mg), there were no Dose Limiting Toxicities; thus dose level 4 was determined to be the MTD.

Once the MTD for the study treatment combination was determined in the Phase 1 Combination Trial to be Dose Level 4, accrual proceeded on the Phase II portion of the study. Since the eligibility criteria, drug administration details (other than dose) and evaluation details were identical for the Phase I Combination trial and the Phase II Combination trial, three subjects in the Phase I Combination Trial who were treated at the MTD were included in the Phase II Combination Trial.

Four patients in the Phase I Combination Trial had stable disease ranging from 12 weeks to 36 weeks. The following observations from our preclinical studies and from the Phase I Combination Trial provided the rationale for proceeding with the Phase II Combination Trial combining Oncoprex with erlotinib:

- TUSC2 inhibits a variety of tyrosine kinases including EGFR, PDGFR, c-kit, and c-abl;
- expression of TUSC2 in NSCLC cells combined with TKIs is complementary *in vitro* and *in vivo*;
- intravenous administration of a nanoparticle encapsulated TUSC2 expression plasmid effectively delivers TUSC2 to distant tumor sites and mediates an anti-tumor effect in orthotopic human lung cancer xenograft models; and
- when the TUSC2-nanoparticle is combined with a TKI, the suppression of tumor growth in mouse xenograft models is synergistic.

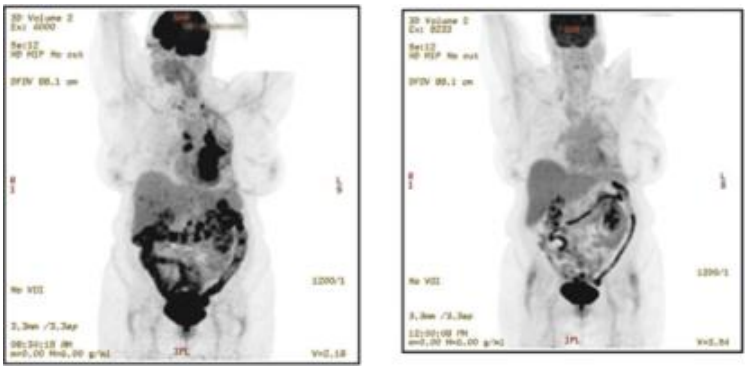
Phase II Combination Trial

The Phase II Combination Trial is designed to include subjects treated with the combination of Oncoprex and erlotinib at the MTD with the primary goal of measuring the response rate, and secondary endpoints of stable disease, time to progression and overall survival. The response rate for cancer therapies is defined under the Response Evaluation Criteria in Solid Tumors, or RECIST, as Complete Response (CR) + Partial Response (PR); disease control rate is defined under the RECIST criteria as Complete Response (CR) + Partial Response (PR) + Stable Disease (SD)>8weeks.

Enrollment criteria for the second phase of the Phase I/II clinical trial are identical to those in the first phase. The Phase II portion of the trial began in June 2015 and is ongoing at MD Anderson. The first subject enrolled in the Phase II portion of the study began erlotinib on Day 8, and subsequently every other enrolled subject began erlotinib on Day 8. The rationale for delaying erlotinib was to allow exploratory analyses of potential differential effects of Oncoprex nanoparticles alone and in combination with erlotinib on downstream pathway activation and potential biomarkers of erlotinib resistance. In the Phase II Combination Trial, subjects will continue to receive three-week cycles of Oncoprex in combination with erlotinib until the occurrence of progressive disease (PD), unacceptable toxicity, withdrawal of consent, or study treatment discontinuation for other reasons, whichever occurs first.

Of the 39 patients allowed in the protocol for the Phase II portion of the trial, 10 have been enrolled (three of whom were also subjects of the Phase I Combination Trial) and nine are evaluable for response under the trial protocol, because they have received 2 or more cycles of treatment. None of the 10 subjects treated to date in the Phase II portion of the Phase I/II trial suffered a Dose Limiting Toxicity. Interim results show that four of the patients had tumor regression and one patient had a Complete Response, or CR under the RECIST criteria. The median response duration for all patients, which is defined as the median time between when response is first noted to the time when cancer progression is observed, was three months. The response rate for the nine patients evaluated to date was 11% and the disease control rate for the nine patients was 78%.

The patient with the CR, a 58 year old female, upon enrollment in the study had metastatic NSCLC status following 6 cycles of pemetrexed and carboplatin and two cycles of maintenance pemetrexed with cancer progression. The patient's tumor has EGFR exon 18 and 20 missense mutations, which are not sensitive to erlotinib. As shown in the illustrations below, this patient had disappearance of both the lung primary tumor and the lung, liver and lymph node metastases.



Subject with RECIST Complete Response

Preliminary analysis of these data further supported our belief that Oncoprex may provide medical benefit in several subpopulations of NSCLC patients for which there is an unmet medical need, and may provide pathways for accelerated FDA approval.

As a result of these initial findings, in April 2016, we suspended enrollment of new patients in the Phase II Combination Trial to collect additional trial data and have it analyzed in order to seek FDA guidance as to whether the protocol for this clinical trial could be modified to expand enrollment and also to divide the patients into cohorts with a view toward seeking accelerated approval in one or more of these cohort populations. We have completed the collection and analysis of the additional preliminary data and expect to present our findings to the FDA within the next several months. Although this clinical trial is currently closed to new patient enrollment, it is not terminated, and is considered "ongoing" because activities such as patient follow-up and further data collection and analysis continue.

If we reach an agreement with the FDA regarding expanded patient enrollment and defined patient cohorts, we plan to amend the trial protocol accordingly and proceed with the amended protocol at MD Anderson and several additional clinical trial sites. Amendments to the Phase II clinical trial protocol will require approval of the Investigational Review Board, or IRB, of each site where the amended trial is conducted. If we do not reach an agreement with the FDA on these changes, then we plan to reopen enrollment in the current version of the Phase II Combination Trial at MD Anderson and at additional clinical trial sites. Assuming enrollment of two or three patients per month, we estimate that enrollment of the remaining patients for the Phase II Combination Trial could take a year, but because enrollment in clinical trials is uncertain, that estimate is also subject to substantial uncertainty. Any estimate of the duration of the trial would also be subject to substantial uncertainty, because treatment generally continues under the clinical trial protocol until the patient dies, experiences a serious adverse event or withdraws from the trial, or until cancer progresses. Even after completion of treatment, patients continued to be monitored. If we reopen the trial, we will need to provide MD Anderson with plans and funding to move ahead with the trial. Whether under the original protocol or a revised protocol, we intend to use a portion of the proceeds of the recently completed initial public offering of our common stock to add additional clinical trial sites.

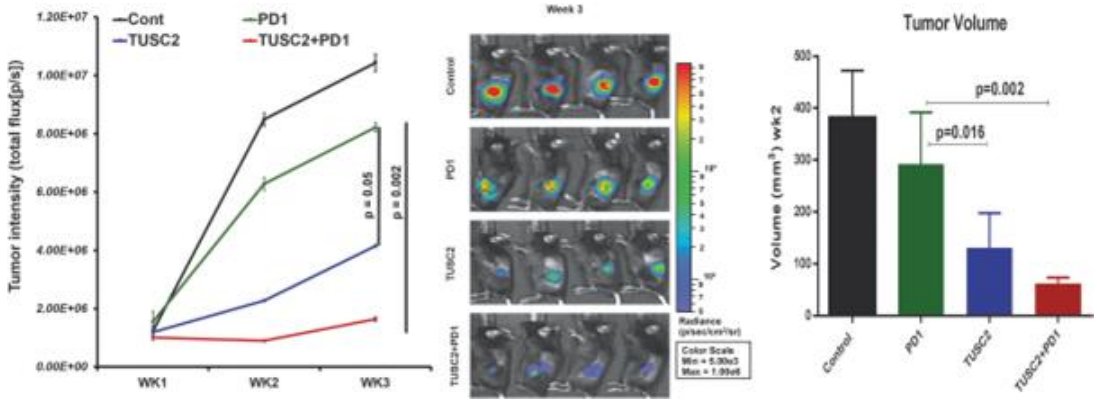
Preclinical Studies of TUSC2 in the Immune Response to Cancer

Previous research has shown that TUSC2 regulates cytokine expression *in vitro*. Cytokines are proteins that stimulate inflammation as part of the immune response. Stable expression of TUSC2 in H1299 NSCLC cells altered expression of a wide spectrum of cytokines including IL2, IL7, IL8 and 10, GM-CSF and PDGF-beta. TUSC2 is a positive regulator of innate immunity via regulation of IL-15 expression. IL-15 induces NK cell differentiation.

The systemic effect of the TUSC2 and anti-PD1 antibody combination was examined in two immunecompetent, syngeneic mouse models of Kras and p53 mutant lung cancer. C57BL/6 mice were subcutaneously injected with murine adenocarcinoma lung carcinoma CMT/167-luc cells (KrasG12V mutation). CMT/167 cells do not express TUSC2. Tumors from untreated mice, isotype antibody control, or those treated with anti-PD1 were used as controls. 344SQ (KrasG12D allele and a knock-in Trp53R172HΔG allele) adenocarcinomas which metastasize to the lung in 126S2 mice were also used. When tumors reached 50-100 mm3, mice were either injected intravenously with DOTAP:cholesterol (DC)-TUSC2 complex alone (at a dose of 25 µg of plasmid DNA and 10 nmol DC, every 48 hours for three injections), or (DC)-TUSC2 complex combined with anti-PD1 antibody (250 µg for four injections) alone or combined with anti-CTLA4 (100ug for three injections). Tumor growth and development was monitored by scoring ex-vivo luminescence using the IVIS Imaging System 200 Series. All tumor measurements were blinded to treatment and results were analyzed independently by biostatisticians.

Preclinical Study Showing that the TUSC2 and Anti-PD1 Combination Cooperatively Inhibits Growth of CMT/167 Lung Adenocarcinomas

Mouse experiments showed combined treatment with TUSC2 and anti-PD1 antibody superior to anti-PD1 alone in five independent experiments in two different tumor models. Results of a representative experiment is shown in the graph below. By week 3 the reduction in tumor image intensity by the combination of TUSC2 and anti-PD1 and TUSC2, anti-PD1, plus anti-CTLA4 was greater than the reduction with TUSC2 alone, anti-PD1 combined with anti-CTLA4, or the isotype control. Spleens and blood were collected for immunological analysis profiling by multicolor flow cytometry. Immune profiling panels were designed to evaluate response and major changes of specific regulatory innate and adaptive immune cells to TUSC2 or anti-PD1 treatment in peripheral blood and spleen.



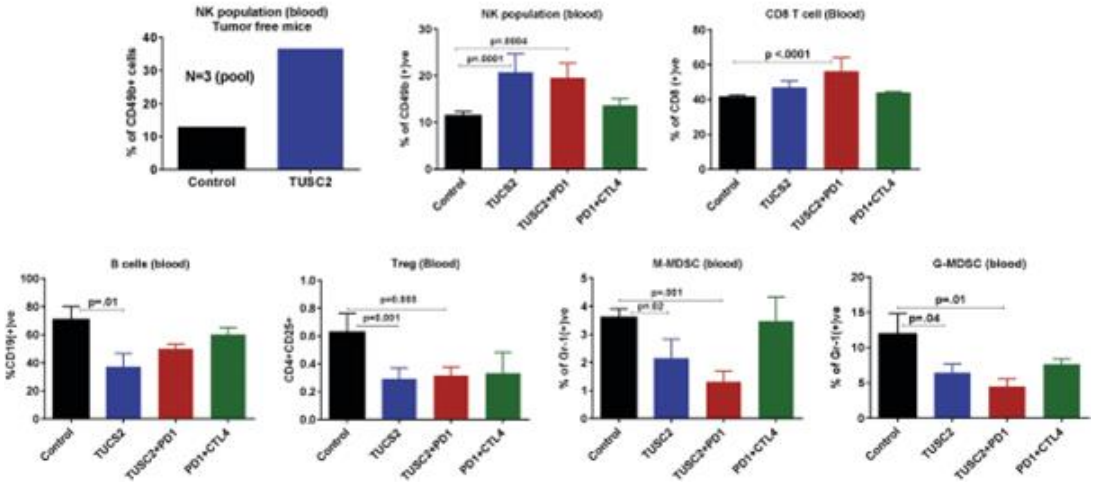
12-Preclinical Study Showing Effect of TUSC2 Anti-PD1 Combo on T Lymphocytes

Preclinical Study Showing the Effect of the TUSC2 and Anti-PD1 Combination on T Lymphocytes

The population of natural killer cells (NK), cytotoxic lymphocytes critical to innate immune function, was assessed in peripheral blood mononuclear cells (PBMCs) in tumor bearing mice treated with anti-PD1, TUSC2 alone and the combination. As shown in the graph below, the NK cell population increased strongly in the TUSC2 alone and TUSC2+PD1 groups which correlated with tumor regression. Anti-PD1 alone had no effect on NK cell proliferation.

Tumor free mice without mutations that lead to metastasis were injected intravenously with TUSC2 which caused a threefold up-regulation of NK cells in the peripheral blood of TUSC2 injected mice as compared with non-injected mice. CD8 T cells, which are cytotoxic T cells (CTL) for tumor killing, act as a prognostic marker of tumor regression. Increased numbers of CTL were found in the TUSC2 and TUSC2+PD1 groups as compared with that of the control group which directly correlated with the anti-tumor effect, as shown in the graph below. Lower levels of CD62L expression on T lymphocytes in TUSC2 treated mice suggests that TUSC2 regulates T cell activation. Moreover, TUSC2 induced down-regulation of regulatory T cells (Treg, CD4+CD25+). TUSC2 was shown to down-regulate checkpoint markers such as PD-1, CTLA-4, Tim-3, and LAG-3.

Effect of TUSC2 alone or in combination with anti-PD1 on immune cell populations in peripheral blood. Multi-color flow cytometry showed that TUSC2 significantly upregulated NK and cytotoxic T cells, and downregulated regulatory T cells, myeloid-derived suppressor cells (MDSCs), and B lymphocytes in tumor-bearing mice. The plot at the upper left shows that TUSC2 upregulated NK cells by 3-fold in tumor-free mice. All analyses were done 2 weeks after tumor cell implantation.



13-Effect of TUSC2 with Anti-PD1 on Immune Cell Populations in Peripheral Blood (Large)

Preclinical Study Showing that TUSC2 Immunogene Therapy is Synergistic with Anti-PD1 in Lung Cancer Syngeneic Mouse Models

Based on the prolonged responses that were observed in TUSC2 clinical trials, which suggest that TUSC2 may modulate the immune response, and on the fact that checkpoint blockade immunotherapy against PD1 and PD-L1 has yielded durable antitumor activity in a subset of NSCLC patients, MD Anderson researchers conducted a preclinical study to investigate the immune response to TUSC2 in immune cell populations and the synergistic antitumor effect of TUCS2 in combination with anti-PD1 checkpoint blockade in syngeneic mouse NSCLC models.

Two Kras-mutant syngeneic mouse models were used to explore the effect of TUSC2+anti-PD1 (+/- anti-CTLA-4) on immune cells infiltration into the tumor micro-environment. Activating Kras mutations are the most common driver mutations in lung adenocarcinomas. Lung cancer with mutant Kras has a poor prognosis, is often resistant to conventional therapy, and readily becomes resistant to targeted therapies with kinase inhibitors. Studies by researchers not at MD Anderson have found that PD1 expression was highly associated with the presence of Kras mutations and that PD-L1 expression was elevated in premalignant Kras-mutant cells, suggesting that Kras mutation may affect the function of the PD1/PD-L1 immune checkpoint pathway.

The first syngeneic mouse model used a murine lung carcinoma cell line CMT/167-luc with a Kras G12V mutation and a low level of TUSC2 expression, implanted subcutaneously in C57BL/6 mice. The second syngeneic mouse model optimized an aggressive experimental metastatic lung cancer model using 129SvE mice injected with SQ344 lung cancer cells, which contained KrasG12D allele. The SQ344 tumor model was found to be less sensitive to anti-PD1 single agent treatment.

The graph below shows the protocol for and results of this preclinical study, in which anti-PD-1, TUSC2 and anti-CTLA-4 treatments were administered in the SQ344 metastatic lung tumor mouse model. Figure A shows that SQ344 tumor cells have less expression of PD-L1 than in the CMT167 model, as determined by flow cytometry. The level of PD-L1 expression in SQ344 cells was only 4.5%, which was significantly lower than the level found in the CMT 167 mouse tumor model (23.7% vs. 4.5%, $p < 0.0001$), suggesting that SQ344 would respond less strongly to an anti-PD1 agent than the CMT167 model. Figure B shows the protocol for the experiment, in which treatments were administered every three or four days in the mouse tumor cells. Figure C shows the survival of the mice with the lung tumor cells treated with (a) no treatment, (b) a combination of anti-PD-1 and anti-CTLA-4, (c) TUSC2 alone, (d) a combination of TUSC2 and anti-PD-1, and (e) a combination of TUSC2, anti-PD-1 and anti-CTLA-4. Figure D shows samples of untreated lung tissue and lung tissue treated with TUSC2. Figure E shows tumor sizes after each of the treatments shown in Figure C after two weeks. Figures F, G and H shows the infiltration by NK cells, the concentration of T regulatory, or Treg, cells and the concentration of myeloid-derived suppressor, or MDSC, cells, a type of immune cells, in each case after treatment with (a) no treatment, (b) TUSC2 alone, (c) a combination of TUSC2 and anti-PD-1 and (d) a combination of anti-PD-1 and anti-CTLA-4.

The results of this preclinical study indicate that TUSC2-sensitization to anti-PD1 could be produced in both Kras-mutant lung cancer mouse models.

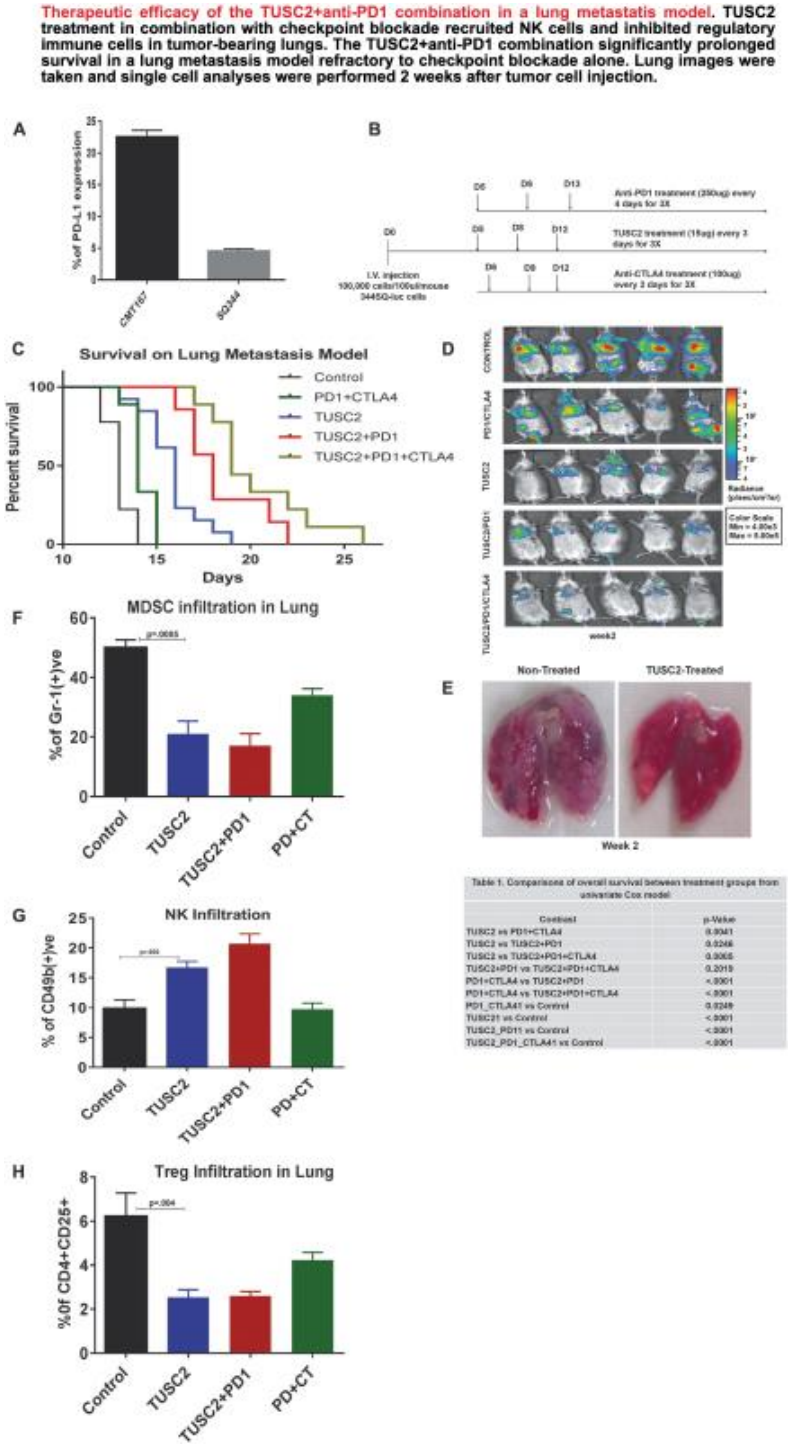


Table 1. Comparisons of overall survival between treatment groups from univariate Cox model

Contrast	p-Value
TUSC2 vs PD1+CTLA4	0.9041
TUSC2 vs TUSC2+PD1	0.0248
TUSC2 vs TUSC2+PD1+CTLA4	0.0065
TUSC2+PD1 vs TUSC2+PD1+CTLA4	0.2013
PD1+CTLA4 vs TUSC2+PD1	<.0001
PD1+CTLA4 vs TUSC2+PD1+CTLA4	<.0001
PD1_CTLA41 vs Control	0.0249
TUSC21 vs Control	<.0001
TUSC2_PD11 vs Control	<.0001
TUSC2_PD1_CTLA41 vs Control	<.0001

14-Therapeutic Efficacy of TUSC2+Anti-PD1 in a Lung Metastasis Model (Large)

Preclinical Studies of Additional 3p21.3 Genes with Cancer-Fighting Properties

We have licensed rights to a group of candidate tumor suppressor genes, including 101F6, NPRL2, CACNA2D2, PL6, BLU, RASSF1, HYAL 1 and HYAL2, in addition to TUSC2 (which is also referred to as FUS1), all of which are located in a sub-region of human chromosome 3 known as 3p21.3. Using a number of techniques, MD Anderson researchers and their collaborators have identified these genes as potentially having cancer-fighting characteristics. MD Anderson researchers have subsequently conducted a number of preclinical studies on certain of these genes, particularly 101F6 and NPRL2, as well as TUSC2, both alone and in combination with other compounds, in order to assess their actual effects on NSCLC. Three of these preclinical studies are described below. We plan to support continuing research into the cancer-fighting properties of these and other genes in the 3p21.3 sub-region as an important part of our strategy.

Preclinical Study Showing Expression of Several Genes in the Human Chromosome 3p21.3 Sub-region by an Adenovirus Vector Results in Tumor Suppressor Activities in Vitro and in Vivo

MD Anderson researchers conducted preclinical studies, both in vitro and in vivo, of several of the licensed genes located in the 3p21.3 sub-region, in order to assess their effects on tumor cell proliferation and apoptosis in human lung cancer cells. The researchers used adenoviral vectors to introduce individual wild-type genes into 3p-deficient tumor xenografts and tumor cell lines. This “forced expression” of the wild-type forms of TUSC2, 101F6, and NPRL2 resulted in inhibition of tumor cell growth by induction of apoptosis and/or alteration of cell cycle pathways in vitro, compared to control. Intratumoral injection of 101F6, TUSC2 and NPRL2 with adenoviral vectors, as well as systemic administration of these genes in an experimental mouse model, suppressed the growth of tumor xenografts (in this case, human tissue grafted onto the mouse model) and inhibited lung metastases. The results of these studies showed that the genes 101F6, NPRL2 and TUSC2 had the most significant anti-cancer effects of the tested genes and were therefore the most promising genes for further study.

Preclinical Study Showing that Tumor Suppressor 101F6 and Ascorbate Inhibit Non–Small Cell Lung Cancer Growth

One of the promising tumor suppressor gene candidates, 101F6, expresses a protein found in normal lung bronchial epithelial cells and fibroblasts but whose function is impaired in most lung cancers. This protein is involved in the regeneration of ascorbate, a well-known antioxidant that has been tested as a supplemental therapeutic agent for human cancer prevention and therapy. MD Anderson researchers studied the effect of 101F6 in combination with ascorbate on human lung cancer tissue, both in vitro and in vivo. In the in vitro portion of the study, 101F6 was transferred via nanoparticles similar to our Oncoprex nanovesicles, and in combination with ascorbate, selectively targeted cancer cells and inhibited lung cancer cell growth to a greater extent than either 101F6 or ascorbate alone. In vivo, the systemic injection of 101F6 nanoparticles in mouse tail veins, together with the intra-abdominal injection of ascorbate, inhibited both tumor formation and growth in human NSCLC H322 lung cancer xenograft mouse models ($P < 0.001$) with greater effect than either 101F6 or ascorbate administered alone.

Preclinical Study Showing NPRL2 Sensitizes Human Non-Small Cell Lung Cancer (NSCLC) Cells to Cisplatin Treatment by Regulating Key Components in the DNA Repair Pathway

Another of the promising tumor suppressor gene candidates, NPRL2, interacts with a kinase that is activated by cisplatin, an anti-cancer drug, leading to downstream activation of apoptosis in response to the presence of intracellular high-molecular weight DNA fragments, which themselves result from the breakup of DNA molecules induced by exposure to cisplatin. Mutations in the NPRL2 gene are associated with resistance to this cisplatin-mediated apoptosis. MD Anderson researchers have conducted preclinical studies of NPRL2 with cisplatin in vitro in lung cancer cell cultures and in vivo in an experimental mouse model of chest cavity cancer dissemination. Data from these studies suggest that the systemic introduction of the NPRL2 gene and the resulting expression of the NPRL2 protein in cancer cells activates the DNA damage checkpoint pathway in cisplatin-resistant and NPRL2-negative cells. These studies suggest that the combination of NPRL2 and cisplatin could resensitize cisplatin nonresponders to cisplatin treatment, helping to overcome resistance to cisplatin.

Process Development and Manufacturing

Through years of Oncoprex process development, including production of multiple clinical material batches in compliance with current Good Manufacturing Practices, or cGMP, we have developed a robust manufacturing system for Oncoprex. Unlike gene therapy agents in the past, which needed to be prepared individually for each patient or required viral vectors for gene delivery, we believe that our nanovesicle delivery system is scalable for commercial production, and the final product can be stored for later use. Manufacturing advances have resulted in improvements in scale, quality and formulation for cGMP clinical materials. We have worked with multiple contract manufacturing organizations, or CMOs, to use our proprietary processes and protocols to supply our clinical materials. We anticipate that our commercial product will continue to be manufactured for us by CMOs or pharmaceutical partners. Our management is experienced in securing, producing and releasing GMP materials.

The production process for Oncoprex utilizes well-defined steps of fermentation using master cell bank, or MCB, stocks, purification, and DOTAP:cholesterol (DC) nanovesicle production to incorporate the TUSC2 plasmid into nanovesicles for final formulation, packaging and storage. We have produced Chemistry, Manufacturing and Control, or CMC, documentation to the satisfaction of the FDA for our Phase I and Phase I/II clinical trials, and we have produced and tested and released MCB stocks for use. We intend to continue to improve our process development, formulation, packaging, storage, long-term stability, and distribution as part of our ongoing technical programs to coincide with our pivotal clinical and commercialization goals.

Our CMOs have demonstrated the ability to scale sufficiently both in timeliness and quantity required for clinical application, and based on our experience with those CMOs, we believe they will be able to scale production of Oncoprex in the future, both with respect to capacity and technology. Production by outside CMOs requires advance planning to schedule their production lines in coordination with other manufacturing orders they may have, as well as cost negotiation. Production costs may vary due to competition for production lines.

Currently, a CMO completes production of the TUSC2 DNA plasmids and transports them in a climate-controlled setting to our clinical test site at MD Anderson, where they are stored in cold storage until needed. Pursuant to our research agreements with MD Anderson, MD Anderson has developed thorough standard operating procedures for thawing, stabilizing, final formulation required for application, and short-term storage prior to administering Oncoprex. This standardized process is both transferable and replicable at other clinical pharmacies, and we plan to scale this process for expanded clinical and commercial use outside of MD Anderson.

MD Anderson is currently testing the shelf life of the final formulation of Oncoprex. A shelf life of at least one year has been established to date, and testing is ongoing.

Intellectual Property

We hold a worldwide, exclusive license to 30 issued and two pending patents for technologies developed at MD Anderson and UTSWMC. These patents comprise various therapeutic, diagnostic, technical and processing claims.

The following table shows our families of issued patents and patent applications, together with information about the type of patent protection, the jurisdiction and the patent expiration dates.

Patent Family	Title and (Description)	Type of Patent Protection	Jurisdiction	Patent Expiration Dates
1	Chromosome 3p21.3 genes are tumor suppressors (Use of our platform genes, including TUSC2, and use of our non-viral nanovesicle delivery system)	The patents in this family have claims directed to compositions of matter, uses of the compositions and processes for preparing the compositions	United States (2 issued) United States (1 pending) Australia (2 issued) Japan (1 issued) Canada (1 issued) Europe (1 issued; validated in Switzerland, Germany, Denmark, Finland, France, United Kingdom, Ireland, Sweden, Netherlands)	7/10/2021, except for the issued US patents, which expire on 5/15/2024 and 7/29/2022
2	Bioactive FUS1 Peptides and Nanoparticle-Polypeptide Complexes (Pharmaceutical formulation of TUSC2 (also referred to as FUS1) nanoparticles, method of delivering TUSC2 to cancer cells, and method of treating cancer patients with TUSC2 nanoparticles)	The patents in this family have claims directed to compositions of matter, uses of the compositions and processes for preparing the compositions	United States (2 issued) Korea (1 issued)	1/23/2030, 3/14/2026 7/29/2022
3	Methods and Compositions of Non-Viral Gene Therapy for Treatment of Hyperproliferative Diseases (Methods of delivery, including our nanovesicle delivery system, of a series of genes that are licensed to us, including TUSC2, and genes that are not licensed to us)	The patents in this family have claims directed to compositions of matter, uses of the compositions and processes for preparing the compositions	United States (1 pending) Canada (1 issued) Europe (1 issued) Belgium (1 issued) France (1 issued) Germany (1 issued) Italy (1 issued) Liechtenstein (1 issued) Spain (1 issued) Sweden (1 issued) Switzerland (1 issued) United Kingdom (1 issued)	5/24/2020
4	Methods and Compositions Related to Novel hTMC Promoter and Vectors for Tumor-Selective and High-Efficient Expression of Therapeutic Genes (A genetic technology to improve the effectiveness of gene therapy, relating to our platform genes and other genes)	The patents in this family have claims directed to compositions of matter, uses of the compositions and processes for preparing the compositions	United States (1 issued)	8/24/2029

Because the use of our platform genes, including TUSC2, and the use of our non-viral delivery system to deliver them, are covered by Family No. 1, we believe that expiration of the patents in Family 3 will not affect our intellectual property protection for use of the genes which are licensed to us and are part of our platform.

We also hold a non-exclusive license from the National Institutes of Health to 15 patents that expired on August 1, 2017. We are aware that others have also licensed these technologies from the NIH. These patents relate to the DOTAP:cholesterol liposomes for delivery of therapeutic DNA, which is the basic delivery system embodied in our nanovesicles. Through our license from MD Anderson, we have separate patent protection for the combination of our nanovesicles with the genes we have licensed from MD Anderson, as well as for improvements that MD Anderson has made to the nanovesicle delivery system. Because the license from the NIH is non-exclusive, we do not expect the expiration of the underlying patents to have a material effect on our business. We have an ongoing obligation to pay the NIH a total of $240,000 (together with an additional $20,000 each year starting in 2018) upon our receipt of regulatory approval for our current or potential product candidates.

In addition to the current licensed patents, Genprex is currently evaluating additional patent licenses from MD Anderson to add to the patent portfolio and expand our commercial potential. We expect to evaluate technology transfer opportunities to leverage the commercial potential of our platform delivery system and also seek complementary oncology therapies.

We have filed a trademark application for our company name and for the drug name “Oncoprex” for added protection of future product branding.

Licenses and Research Collaborations

Agreements with MD Anderson

We hold our Oncoprex technologies under a Patent and Technology License Agreement, referred to as the MD Anderson License Agreement, with MD Anderson and The Board of Regents of the University of Texas System. The MD Anderson License Agreement was originally entered into as of July 20, 1994 between the Board of Regents of The University of Texas System, MD Anderson and Intron Therapeutics, Inc. (which later changed its name to Introgen Therapeutics, Inc.), or Introgen.

The MD Anderson License Agreement originally covered a number of patents and technologies unrelated to TUSC2, but the TUSC2 technologies were added by Amendment No. 3 to the MD Anderson License Agreement dated October 4, 2001. Under the MD Anderson License Agreement, we have rights to patents covering use of various genes, including the TUSC2 gene, for treatment of cancer, as well as know-how and related intellectual property.

The exclusive licenses under the MD Anderson License Agreement, as amended, extend to the end of the term or terms for which patent rights under the agreement have not expired, and expire on the expiration of all patents covered by the agreement. The last licensed patent under the MD Anderson License Agreement will expire in January 2030. Upon the expiration of the exclusive licenses, the licensee will have a non-exclusive, fully paid-up right and license to use and otherwise exploit the technology rights licensed under the agreement. MD Anderson may terminate the agreement in the event of the licensee’s voluntary or involuntary bankruptcy or if the licensee’s business is placed in the hands of a receiver, assignee or trustee. In addition, MD Anderson may terminate the agreement in the event of the licensee’s uncured breach.

Pursuant to a Technology Sublicense Agreement dated March 7, 2007, referred to as the Sublicense Agreement, Introgen sublicensed its rights under the MD Anderson License Agreement to Introgen Research Institute, Inc. or IRI, a company formed and owned by Rodney Varner, our current President, CEO and Chairman of the board of directors.

Pursuant to an Assignment and Collaboration Agreement dated April 13, 2009, referred to as the 2009 IRI Collaboration Agreement, IRI assigned its rights under the Sublicense Agreement to us, and we granted back to IRI a non-exclusive, royalty-free license to use and practice the licensed technology for non-commercial research purposes. As consideration for this assignment, we agreed to assume all of IRI’s obligations to MD Anderson under the MD Anderson License Agreement, including ongoing patent related expenses and royalty obligations.

The 2009 IRI Collaboration Agreement was amended by an Amended Collaboration and Assignment Agreement dated July 1, 2011, referred to as the 2011 IRI Collaboration Agreement. The 2011 Collaboration Agreement provided that IRI would provide additional licensing opportunities and services to us, in return for monthly payments and our obligation to pay to IRI a royalty of one percent (1%) on sales of products licensed to us under the MD Anderson License Agreement. In 2012, IRI’s obligation to provide those opportunities and services, and our obligation to make monthly payments to IRI, were terminated. The 2011 IRI Collaboration Agreement had an initial term of two years and renews automatically for additional consecutive periods of one year each unless either we or IRI gives prior written notice of termination to the other party. In addition, either we or IRI may terminate the agreement in the event of the other party’s voluntary or involuntary bankruptcy or uncured default.

Pursuant to a Technology Sublicense Agreement dated June 1, 2011, we granted to IRI a non-exclusive sublicense, for non-commercial purposes, to the rights under the Sublicense Agreement.

At the time that we entered into the 2011 IRI Collaboration Agreement, Mr. Varner was not an officer or director of Genprex, but he was deemed to be an “affiliate of the Company due to his beneficial ownership of approximately 39% of our issued and outstanding shares. At the time we acquired the Oncoprex technologies under the 2009 IRI Collaboration Agreement, they were the subject of the Phase I Monotherapy Trial. We completed the Phase I Monotherapy Trial and did substantial process development, manufacturing and regulatory work necessary to bring the technologies into the currently ongoing Phase I/II Combination Trial.

Under the MD Anderson License Agreement, the Sublicense Agreement and the 2009 IRI Collaboration Agreement, we are obligated to pay all fees, patent related expenses, royalties, and other amounts that become due with respect to the licensed patents, patent application and other technologies. We are also obligated to pay to MD Anderson royalties of 1.5% of net sales attributed to sales of the licensed products, as well as 1.5% of advance payments received by us (excluding amounts paid to us in reimbursement of development or other costs) from third parties pursuant to sublicense, marketing, distribution or franchise arrangements. Under the 2011 IRI Collaboration Agreement, we are obligated to pay to IRI a royalty of 1.0% of net sales of licensed products and 1.0% of

certain other payments received by us. This royalty obligation continues for 21 years after the later of the termination of the MD Anderson License Agreement and the termination of the Sublicense Agreement. We have no other payment obligations to IRI under the 2009 IRI Collaboration Agreement or the 2011 IRI Collaboration Agreement. We were not required to make any up-front payments to MD Anderson or IRI when we entered into the MD Anderson License Agreement, the Sublicense Agreement or the 2009 IRI Collaboration Agreement. Under the 2011 IRI Collaboration Agreement, we were required to make payments of $30,000 per month to IRI. We made 14 of these monthly payments, totaling $420,000, to IRI in 2011 and 2012, and our obligation to make such monthly payments was terminated in 2012.

Our rights under the MD Anderson License Agreement are made subject to the rights of the U.S. government to the extent that the technology covered by the licensed intellectual property was developed under a funding agreement between MD Anderson and the U.S. government. Additionally, to the extent there is any conflict between the MD Anderson License Agreement and applicable laws or regulations, applicable laws and regulations will prevail. Similarly, to the extent there is any conflict between the MD Anderson License Agreement and MD Anderson's funding agreement with the US government, the terms of the funding agreement will prevail. Some, and possibly all, of our licensed intellectual property rights from MD Anderson have been developed in the course of research funded by the U.S. government. As a result, the U.S. government may have certain rights to intellectual property embodied in our current or future products pursuant to the Bayh-Dole Act of 1980. Government rights in certain inventions developed under a government-funded program include a nonexclusive, non-transferable, irrevocable worldwide license to use inventions for any governmental purpose. In addition, the U.S. government has the right to require us, or an assignee or exclusive licensee to such inventions, to grant licenses to any of these inventions to a third party if the U.S. government determines that adequate steps have not been taken to commercialize the invention, that government action is necessary to meet public health or safety needs, that government action is necessary to meet requirements for public use under federal regulations, or that the right to use or sell such inventions is exclusively licensed to an entity within the U.S. and substantially manufactured outside the U.S. without the U.S. government's prior approval. Additionally, we may be restricted from granting exclusive licenses for the right to use or sell our inventions created pursuant to such agreements unless the licensee agrees to additional restrictions (e.g., manufacturing substantially all of the invention in the U.S.). The U.S. government also has the right to take title to these inventions if we fail to disclose the invention to the government and fail to file an application to register the intellectual property within specified time limits. In addition, the U.S. government may acquire title in any country in which a patent application is not filed within specified time limits. Additionally, certain inventions are subject to transfer restrictions during the term of these agreements and for a period thereafter, including sales of products or components, transfers to foreign subsidiaries for the purpose of the relevant agreements, and transfers to certain foreign third parties. If any of our intellectual property becomes subject to any of the rights or remedies available to the U.S. government or third parties pursuant to the Bayh-Dole Act of 1980, this could impair the value of our intellectual property and could adversely affect our business. The U.S. government has not exercised any of these rights or provided us with any notice of its intent to exercise any of these rights with respect to any of the intellectual property licensed to us by MD Anderson. We are not aware of any instance in which the U.S. government has ever exercised any such rights with respect to any technologies or other intellectual property developed under funding agreements with the U.S. government.

Our current Phase I/II Combination Trial is being conducted at MD Anderson pursuant to a Clinical Study Agreement between Genprex and MD Anderson dated February 10, 2014. Under this agreement, MD Anderson agreed to conduct the Phase I/II Combination Trial under the study protocol, which includes treatment of up to 57 patients, and Genprex agreed to pay up to $1,738,818 to MD Anderson for conducting the clinical trial. As of December 31, 2017, we have paid approximately $492,000 to MD Anderson pursuant to this agreement, and a total of 28 patients have been enrolled in the Phase I/II Combination Trial. This Clinical Study Agreement has a term of five years and may be terminated earlier by us upon thirty days' notice, with due regard for the health and safety of the study subjects. In addition, we and MD Anderson may terminate the Clinical Study Agreement immediately by written agreement, MD Anderson may terminate the agreement immediately if the principal investigator of the Phase I/II Combination Trial is unable to continue to serve and we and MD Anderson cannot agree on an acceptable successor, and either we or MD Anderson may terminate the agreement if necessary for the safety, health or welfare of the clinical trial subjects.

In January 2015, we entered into an option agreement with MD Anderson. This option agreement grants exclusive rights to us to negotiate, until December 31, 2017, an exclusive license agreement related to patents covering both a method for treating cancer and biomarker technology that would allow us to identify patients who might benefit from this treatment. We paid MD Anderson $10,000 for this option agreement. We are negotiating with MD Anderson to extend the term of this option agreement.

In February 2017, we entered into a second option agreement with MD Anderson. This option agreement grants exclusive rights to us to negotiate, until December 31, 2017, an exclusive license agreement related to technology that would provide patent protection for the use of TUSC2 with checkpoint inhibitors. We paid MD Anderson $12,803 for this option agreement. We are negotiating with MD Anderson to extend the term of this option.

License Agreement with P53, Inc.

On February 26, 2010, IRI and P53, Inc. entered into a Technology License Agreement, referred to as the P53 License Agreement, pursuant to which IRI granted to P53, Inc., or P53, a worldwide, exclusive license under certain patents related to the nanovesicle delivery system that we are now using for the delivery of TUSC2, but only for P53's use in gene therapy products in which the sole active genes are p53 and MDA-7. As a result of the 2009 IRI Collaboration Agreement, we are the licensor under the P53 License Agreement.

The P53 License Agreement authorizes P53 to develop, make and have made, use, offer for sale, sell, import and otherwise distribute the licensed products. P53 agreed to submit quarterly reports of activities to IRI including at least such information as would allow IRI to calculate the amount owing to IRI on account of such activities, as well as P53's calculation of such amounts. As consideration for the P53 License Agreement, P53 agreed to pay IRI one-half of all amounts invoiced by MD Anderson to IRI, up to a maximum of $15,000 to be paid by P53, for patent prosecution expenses incurred prior to the effective date of the P53 License Agreement, as well as two-thirds (2/3) of IRI's ongoing patent prosecution expenses, in each case with respect to the licensed patents. Additionally, P53 agreed to pay all amounts that become due to IRI as a result of the P53 License Agreement or the sales, licensing, or other activities of P53 under the P53 License Agreement. Pursuant to the P53 License Agreement, P53 has granted to IRI a fully-paid license with respect to improvements made by P53 to the technology licensed to P53 under the P53 License Agreement. The P53 License Agreement remains in effect until the expiration of the last of the patents licensed under the agreement. The last licensed patent under the P53 License Agreement will expire in May 2020. We may terminate the agreement in the event of P53's voluntary or involuntary bankruptcy or dissolution, assignment for the benefit of creditors or if a receiver or trustee is appointed over P53's business or properties. In addition, we may terminate the agreement in the event of P53's breach of the agreement or if P53 challenges the validity or enforceability of any of the licensed patents. P53 may terminate the agreement upon 90 days' written notice.

Grants

We have received grants from the following entities: Texas Emerging Technology Fund, SBA—Small Business Innovation Research, or SBIR, program, the National Institutes of Health and the United States Department of the Treasury.

Competition

The biotechnology and pharmaceutical industries are intensely competitive and subject to rapid and significant technological change. We have competitors in the United States, Europe and elsewhere, including major multinational pharmaceutical companies, established biotechnology companies, specialty pharmaceutical and generic drug companies and universities and other research institutions. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

The unmet medical need for more effective cancer therapies is such that anticancer drugs are, by a significant margin, the leading class of drugs in development. These include a wide array of products against cancer targeting many of the same indications as our drug candidates. There are a number of drugs approved and under development for treatment of lung cancer. Treatments competitive with our primary product candidates generally fall into the following categories: chemotherapies such as cisplatin, carboplatin, docetaxel and pemetrexed; targeted therapies such as erlotinib, gefitinib, afatinib and osimertinib, and immunotherapies such as checkpoint inhibitors and CAR and CAR T cells, and oncolytic virus-based technology. Data indicate that Oncoprex, when combined with targeted therapies and immunotherapies, may enhance the benefit of those therapies; therefore, we believe that Oncoprex could be administered in combination with targeted therapies and immunotherapies and thus may not be a direct competitor of those drugs. In addition, new drug candidates are constantly being conceived and developed. Any such competing therapy may be more effective and/or cost-effective than ours.

Many of our competitors have greater financial and other resources, such as larger research and development staff and more experienced marketing and manufacturing organizations than we do. Large pharmaceutical companies, in particular, have extensive experience in clinical testing, obtaining regulatory approvals, recruiting patients and manufacturing pharmaceutical products. These companies also have significantly greater research, sales and marketing capabilities and collaborative arrangements in our target markets with leading companies and research institutions. Established pharmaceutical companies may also invest heavily to accelerate discovery and development of novel compounds or to in-license novel compounds that could make the product candidates that we develop obsolete. As a result of these factors, our competitors may succeed in obtaining patent protection and/or FDA approval or discovering, developing and commercializing drugs for the cancer indications that we are targeting before we do or may develop drugs that are deemed to be more effective or gain greater market acceptance than ours. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large, established companies. In addition, many universities and private and public research institutes may become active in our target disease areas. Our competitors may succeed in developing, acquiring or licensing on an exclusive basis, technologies and drug products that are more effective or less costly than any

product candidates that we are currently developing or that we may develop, which could render our products obsolete or noncompetitive. Any product candidates that we successfully develop and commercialize may compete with existing and new therapies that may become available in the future. The availability of reimbursement from government and other third-party payers will also significantly affect the pricing and competitiveness of our products.

Our commercial opportunities could be substantially limited in the event that our competitors develop and commercialize products that are more effective, safer, less toxic, more convenient or less expensive than our comparable products. In geographies that are critical to our commercial success, competitors may also obtain regulatory approvals before us, resulting in our competitors building a strong market position in advance of our product's entry. We believe the competitive factors that will determine the success of our programs will be the efficacy, safety, pricing and reimbursement, and convenience of our current and potential product candidates.

Government Regulation

Government authorities in the U.S., at the federal, state and local level, and other countries extensively regulate, among other things, the research, development, testing, manufacture, quality control, approval, labeling, packaging, storage, recordkeeping, promotion, advertising, distribution, post-approval monitoring and reporting, marketing and export and import of products such as those we are developing. The pharmaceutical drug product candidates that we develop must be approved by the FDA before they may be legally marketed.

In the United States, the Food and Drug Administration, or FDA, regulates pharmaceutical products under the Federal Food, Drug and Cosmetic Act and implementing regulations. Pharmaceutical products are also subject to other federal, state and local statutes and regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, the approval process or after approval, may subject an applicant to administrative or judicial sanctions. FDA sanctions could include refusal to approve pending applications, withdrawal of an approval, a clinical hold, warning letters, product recalls, product seizures, total or partial suspension of production or distribution injunctions, fines, refusals of government contracts, restitution, disgorgement or civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on us.

Within the FDA, the Center for Biologics Evaluation and Research, or CBER, regulates gene therapy products. CBER works closely with the National Institutes of Health, or NIH, and its Recombinant DNA Advisory Committee, or RAC, which makes recommendations to the NIH on gene therapy issues and engages in a public discussion of scientific, safety, ethical and societal issues related to proposed and ongoing gene therapy protocols. The FDA and the NIH have published guidance documents with respect to the development and submission of gene therapy protocols, including informed consent documents. The FDA also has published guidance documents related to, among other things, gene therapy products in general, their preclinical assessment, observing patients involved in gene therapy studies for delayed adverse events, potency testing, and chemistry, manufacturing and control information in gene therapy Investigational New Drugs, or INDs.

Ethical, social, and legal concerns about gene therapy, genetic testing, and genetic research could result in additional regulations restricting or prohibiting the processes we may use. Federal and state agencies, congressional committees and foreign governments have expressed interest in further regulating biotechnology. More restrictive regulations or claims that our products are unsafe or pose a hazard could prevent us from commercializing any products. New government requirements may be established that could delay or prevent regulatory approval of our current and potential product candidates under development. It is impossible to predict whether legislative changes will be enacted, regulations, policies, or guidance changed, or interpretations by agencies or courts changed, or what the impact of such changes, if any, may be.

U.S. Biological Products Development Process

The process required by the FDA before a biological product, including our Oncoprex product candidate, may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests and animal studies according to good laboratory practices, or GLPs, and applicable requirements for the humane use of laboratory animals or other applicable regulations;
- submission to the FDA of an application for an IND, which must become effective before human clinical trials may begin;
- performance of adequate and well-controlled human clinical trials according to the FDA's regulations, commonly referred to as good clinical practices, or GCPs, and any additional requirements for the protection of human research patients and their health information, to establish the safety, purity, and potency of the proposed biological product for its intended use;

- submission to the FDA of a BLA for marketing approval that includes substantive evidence of safety, purity, and potency from results of nonclinical testing and clinical trials;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities where the product is produced and tested to assess compliance with current Good Manufacturing Practice, or cGMP, requirements to assure that the facilities, methods and controls are adequate to preserve the product's identity, strength, quality and purity;
- potential FDA audit of the nonclinical and clinical trial sites that generated the data in support of the BLA; and
- FDA review and approval, or licensure, of the BLA.

Before testing any product candidate, including a gene therapy product, in humans, the product candidate enters the preclinical testing stage. Preclinical tests, also referred to as nonclinical studies, include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies to assess the potential safety and activity of the product candidate. The conduct of certain preclinical tests must comply with federal regulations and requirements, including GLPs.

Where a gene therapy study is conducted at, or sponsored by, institutions receiving NIH funding for recombinant DNA research, a protocol and related documentation has to be submitted to and the clinical trial registered with the NIH Office of Biotechnology Activities, or OBA, pursuant to the NIH Guidelines for Research Involving Recombinant DNA Molecules, or NIH Guidelines. Compliance with the NIH Guidelines is mandatory for investigators at institutions receiving NIH funds for research involving recombinant DNA; however, many companies and other institutions not otherwise subject to the NIH Guidelines voluntarily follow them. The NIH is responsible for convening the RAC, a federal advisory committee, which discusses protocols that raise novel or particularly important scientific, safety or ethical considerations at one of its quarterly public meetings. Current NIH guidelines specify that RAC review of human gene transfer protocols should be limited to cases in which an oversight body, such as an Institutional Biosafety Committee or an Institutional Review Board, or IRB, determines that a protocol would significantly benefit from RAC review, and has been determined to meet certain additional criteria. The OBA will notify the FDA and the sponsor of the RAC's decision regarding the necessity for full public review of a gene therapy protocol. RAC proceedings and reports are posted to the OBA web site and may be accessed by the public.

The clinical trial sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, to the FDA as part of the Investigational New Drug application, or IND. Some preclinical testing may continue even after the IND is submitted. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA places the clinical trial on a clinical hold within that 30-day time period. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. With gene therapy protocols, if the FDA allows the IND to proceed, but the RAC decides that full public review of the protocol is warranted, the FDA will request at the completion of its IND review that sponsors delay initiation of the protocol until after completion of the RAC review process. The FDA may also impose clinical holds on a product candidate at any time before or during clinical trials due to safety concerns or non-compliance. If the FDA imposes a clinical hold, trials may not recommence without FDA authorization and then only under terms authorized by the FDA. We are conducting a Phase I/II clinical trial pursuant to an IND. However, we cannot be sure that issues will not arise that suspend or terminate our IND or that submission of any new IND will result in the FDA allowing new clinical trials to begin, or that, once begun, issues will not arise that suspend or terminate such trials.

Clinical trials involve the administration of the product candidate to volunteers or patients under the supervision of qualified investigators, generally physicians not employed by or under the clinical trial sponsor's control. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, patient selection and exclusion criteria, and the parameters to be used to monitor patient safety, including stopping rules that assure a clinical trial will be stopped if certain adverse events occur. Each protocol and any amendments to the protocol must be submitted to the FDA as part of the IND. Clinical trials must be conducted and monitored in accordance with the FDA's regulations comprising the GCP requirements, including the requirement that all patients provide informed consent. Further, each clinical trial must be reviewed and approved by an independent Institutional Review Board, or IRB, at or servicing each institution at which the clinical trial will be conducted. An IRB is charged with protecting the welfare and rights of clinical trial participants and considers such items as whether the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the form and content of the informed consent, which must be signed by each clinical trial patient or his or her legal representative, and must monitor the clinical trial until completed. Clinical trials involving biological product candidates also must be reviewed by an institutional biosafety committee, or IBC, a local institutional committee that reviews and oversees basic and clinical research conducted at that institution. The IBC assesses the safety of the research and identifies any potential risk to public health or the environment.

Human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- Phase I. The investigational product candidate is initially introduced into human patients and tested for safety. In the case of some products for severe or life-threatening diseases, especially when the product candidate may be inherently too toxic to be ethically administered to healthy volunteers, the initial human testing is often conducted in patients; gene therapy is usually administered to patients in Phase I trials. This is also true in situations where toxicity can only be judged in patients with disease. An evaluation for preliminary evidence of efficacy can be performed at this time.
- Phase II. The investigational product candidate is evaluated in a limited patient population to identify possible adverse effects and safety risks, to evaluate preliminarily the efficacy of the product candidate for specific targeted diseases, and to generate hypotheses for the dosage tolerance, optimal dosage, and dosing schedule.
- Phase III. Clinical trials are undertaken to evaluate further dosage, clinical efficacy, potency, and safety in an expanded patient population at geographically dispersed clinical trial sites. These clinical trials are intended to establish the overall risk/benefit ratio of the product candidate and provide an adequate basis for product labeling.

Post-approval clinical trials, sometimes referred to as Phase IV clinical trials, may be conducted after initial marketing approval. These clinical trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication, particularly for long-term safety follow-up. The FDA recommends that sponsors observe patients for potential gene therapy-related delayed adverse events with agents such as those we are developing for a period of up to 15 years, including a minimum of five years of annual examinations followed by ten years of annual queries, either in person or by questionnaire, of clinical trial patients.

During all phases of clinical development, regulatory agencies require extensive monitoring and auditing of all clinical activities, clinical data, and clinical trial investigators. Annual progress reports detailing the results of the clinical trials must be submitted to the FDA. Written IND safety reports must be promptly submitted to the FDA, the NIH and the investigators for serious and unexpected adverse events, any findings from other trials, tests in laboratory animals or *in vitro* testing that suggest a significant risk for human patients, or any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. The sponsor must submit an IND safety report within 15 calendar days after the sponsor determines that the information qualifies for expedited reporting. The sponsor must also notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction within seven calendar days after the sponsor's initial receipt of the information. Phase I, Phase II and Phase III clinical trials may not be completed successfully within any specified period, if at all. The FDA, the sponsor, or its data safety monitoring board may suspend a clinical trial at any time on various grounds, including a finding that the patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the investigational product candidate has been associated with unexpected serious harm to patients.

There are also requirements governing the reporting of ongoing clinical trials and completed clinical trial results to public registries. Sponsors of clinical trials of FDA-regulated products, including biologics, are required to register and disclose certain clinical trial information, which is publicly available at www.clinicaltrials.gov. Information related to the product, patient population, phase of investigation, study sites and investigators, and other aspects of the clinical trial is then made public as part of the registration. Sponsors are also obligated to discuss the results of their clinical trials after completion. Disclosure of the results of these trials can be delayed until the new product or new indication being studied has been approved. The NIH and the FDA have a publicly accessible database, the Genetic Modification Clinical Research Information System, which includes information on gene therapy trials and serves as an electronic tool to facilitate the reporting and analysis of adverse events on these trials.

Concurrently with clinical trials, companies usually complete additional animal studies and also develop additional information about the physical characteristics of the components of a product as well as finalize processes for manufacturing the components in commercial quantities in accordance with cGMP requirements. To help reduce the risk of the introduction of adventitious agents with use of biological products, the Public Health Service Act, or PHS Act, emphasizes the importance of manufacturing control for products whose attributes cannot be precisely defined. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, the sponsor must develop methods for testing the identity, strength, quality, potency and purity of the final product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the components of a product candidate do not undergo unacceptable deterioration over their shelf life.

U.S. Review and Approval Processes

After the completion of clinical trials of an investigational biologic product, FDA approval of a BLA must be obtained before commercial marketing of the product may begin. The BLA must include results of product development, laboratory, and animal studies, human trials, information on the manufacture and composition of the product, proposed labeling and other relevant information. The testing and approval processes require substantial time and effort and there can be no assurance that the FDA will accept the BLA for filing and, even if filed, that any approval will be granted on a timely basis, if at all.

Under the Prescription Drug User Fee Act, or PDUFA, as amended, each BLA must be accompanied by a significant user fee. The FDA adjusts the PDUFA user fees on an annual basis. PDUFA also imposes annual product fees and annual establishment fees on facilities used to manufacture prescription drugs or biologics. Fee waivers or reductions are available in certain circumstances, including a waiver of the application fee for the first application filed by a small business. No user fees are assessed on BLAs for products designated as orphan drugs, unless the application also includes a non-orphan indication.

Within 60 days following submission, the FDA reviews the BLA to determine if it is substantially complete before the agency accepts it for filing. The FDA may refuse to file any BLA that it deems incomplete or not properly reviewable at the time of submission and may request additional information.

In this event, the BLA must be resubmitted with the additional information. The resubmitted application also is subject to an initial filing review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review of the BLA. The FDA reviews the BLA to determine, among other things, whether the proposed product is safe and potent, or effective, for its intended use, and has an acceptable purity profile, and whether the product is being manufactured in accordance with cGMP to assure and preserve the product's identity, safety, strength, quality, potency and purity. The FDA may refer applications for novel products or products that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations when making decisions. During the product approval process, the FDA also will determine whether a Risk Evaluation and Mitigation Strategy, or REMS, is necessary to assure the safe use of the product. If the FDA concludes that a REMS is needed, the sponsor of the BLA must submit a proposed REMS; the FDA will not approve the BLA without a REMS, if required.

Before approving a BLA, the FDA will inspect the facilities at which the product is manufactured. The FDA will not approve the product unless it determines that the manufacturing processes and facilities are in substantial compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving a BLA, the FDA will typically inspect one or more clinical sites, to assure that the clinical trials were conducted in compliance with GCP requirements. To assure cGMP, GLP and GCP compliance, an applicant must incur significant expenditure of time, money, and effort in the areas of training, record keeping, production, and quality control.

Notwithstanding the submission of relevant data and information, the FDA may ultimately decide that the BLA does not satisfy its regulatory criteria for approval and deny approval. Data obtained from clinical trials are not always conclusive and the FDA may interpret data differently from how we interpret the same data. If the agency decides not to approve the BLA in its present form, the FDA will issue a complete response letter that usually describes all of the specific deficiencies in the BLA identified by the FDA. The deficiencies identified may be minor, for example, requiring labeling changes, or major, for example, requiring additional clinical trials. Additionally, the complete response letter may include recommended actions that the applicant might take to place the application in a condition for approval. If a complete response letter is issued, the applicant may either resubmit the BLA, addressing all of the deficiencies identified in the letter, or withdraw the application.

If a product candidate receives regulatory approval, the approval may be significantly limited to specific diseases and dosages or the indications for use may otherwise be limited, which could restrict the commercial value of the product. Further, the FDA may require that certain contraindications, warnings, or precautions be included in the product labeling. The FDA may impose restrictions and conditions on product distribution, prescribing, or dispensing in the form of a risk management plan, or otherwise limit the scope of any approval. In addition, the FDA may require post marketing clinical trials, sometimes referred to as Phase IV clinical trials, designed to assess further a biological product's safety and effectiveness, and testing and surveillance programs to monitor the safety of approved products that have been commercialized.

One of the performance goals agreed to by the FDA under the PDUFA is to review 90% of original standard BLAs within 10 months of the 60 day filing date and 90% of original priority BLAs within six months of the 60 day filing date, whereupon a review decision is to be made. The FDA does not always meet its PDUFA goal dates for standard and priority BLAs and its review goals are subject to change from time to time. The review process and the PDUFA goal date may be extended by three months if the FDA requests or the BLA sponsor otherwise provides additional information or clarification regarding information already provided in the submission within the last three months before the PDUFA goal date.

Orphan Drug Designation

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biological product intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the United States for which there is no reasonable expectation that the cost of developing and making a drug or biological product available in the United States for this type of disease or condition will be recovered from sales of the product. Orphan product designation must be requested before submitting a BLA. After the FDA grants orphan product designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan product designation does not convey any advantage in or shorten the duration of the regulatory review and approval process. There can be no assurance that we will receive Orphan-Drug Designation for any indications or for any of our current and potential product candidates.

If a product candidate that has orphan designation subsequently receives the first FDA approval for the disease or condition for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications to market the same drug or biological product for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan exclusivity. Competitors, however, may receive approval of different products for the indication for which the orphan product has exclusivity or obtain approval for the same product but for a different indication for which the orphan product has exclusivity.

Expedited Development and Review Programs

The FDA has four programs in place intended to facilitate and expedite development and review of new drugs and biologics intended to address unmet medical needs in the treatment of serious or life-threatening conditions. These are Fast Track Designation, Breakthrough Therapy Designation, Accelerated Approval Program, and Priority Review Designation.

The Fast Track program is intended to expedite or facilitate the process for reviewing a new product if it is intended for the treatment of a serious or life-threatening disease or condition, and it demonstrates the potential to address unmet medical needs for such a disease or condition. Fast Track Designation applies to the combination of the product and the specific indication for which it is being studied. The sponsor of a new drug or biologic may request the FDA to designate the drug or biologic as a Fast Track product at any time during the clinical development of the product. Unique to a Fast Track product, the FDA may consider for review sections of the marketing application on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the application, the FDA agrees to accept sections of the application and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the application.

A new product can receive Breakthrough Therapy Designation if it is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that it may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. A Breakthrough Therapy Designation conveys all of the features of Fast Track Designation in addition to more intensive FDA guidance on an efficient development program, organizational commitment involving senior managers, and eligibility for priority review. Specifically, FDA intends to expedite the development and review of a Breakthrough Therapy by, where appropriate, intensively involving senior managers and experienced review staff in a proactive collaborative, cross-disciplinary review. Where appropriate, FDA also intends to assign a cross-disciplinary project lead for the review team to facilitate an efficient review of the development program. The FDA notes that a compressed drug development program still must generate adequate data to demonstrate that the drug or biologic meets the statutory standard for approval. Omitting components of the development program that are necessary for such a determination can significantly delay, or even preclude, marketing approval.

Breakthrough Therapy Designation indicates that preliminary clinical evidence demonstrates the drug may have substantial improvement on one or more clinically significant endpoints over available therapy. Breakthrough Therapy Designation intensifies FDA involvement to ensure an efficient drug development program and is an organizational commitment from the FDA to involve its senior managers. A sponsor receiving Breakthrough Therapy Designation has up to six months after receiving the Breakthrough Therapy Designation to request an Initial Comprehensive Multidisciplinary meeting to discuss the drug development program. This initial meeting is a Type B meeting, used to discuss the overarching, high-level plan for drug development. These discussions include topics such as planned clinical trials and endpoints, any resizing or adaptations to the trials, plans for expediting the manufacturing development strategy and studies that potentially could be completed after approval. When Breakthrough Therapy Designation has been granted, the FDA is encouraged to meet regularly with the sponsor and subsequent meetings are considered Type B meetings and are established based on the needs of the program.

The FDA may grant accelerated approval under its Accelerated Approval Program to a product candidate for a serious or life-threatening condition upon a determination that the product candidate has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or an effect on a clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. Accelerated approval is usually contingent on a sponsor's agreement to conduct adequate and well-controlled additional post-approval trials to verify and describe the product's clinical benefit. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product.

Fast Track Designation, Breakthrough Therapy Designation, and Accelerated Approval do not change the standards for approval but may expedite the development process.

An application for a product candidate may be eligible to obtain Priority Review Designation if it is intended to treat a serious condition and, if approved, would provide a significant improvement in safety or effectiveness. The FDA will attempt to direct additional resources to the evaluation of an application for a new product designated for priority review in an effort to facilitate the review. A Priority Review Designation means FDA's goal is to take action on the marketing application within six months (compared to 10 months under standard review) of the 60-day filing date. Priority Review Designation does not change the standards for approval but may expedite the review process.

We believe that Oncoprex represents a breakthrough, in that the TUSC2 gene is delivered with a non-viral lipid-based nanoparticle, rather than a viral vector. In addition, Oncoprex may have broad applicability to many cancers, and we believe that Oncoprex represents a significant improvement in safety for systemic use over previously approved products. For these reasons, we believe that our ongoing Phase II clinical trial may provide sufficient data to support Accelerated Approval as a Breakthrough Therapy for Oncoprex immunogene therapy combined with erlotinib for the treatment of Stage IV non-small cell lung cancer patients with unmet medical needs whose cancer has progressed on approved therapies. We intend to enroll specifically patients with an EGFR mutation but without a T790M mutation. Patients in this group have benefited from Oncoprex + erlotinib therapy in our ongoing Phase II clinical trial, and they have no approved treatments and thus have an unmet medical need which we believe could qualify for Fast Track or Breakthrough Therapy designation. The current Phase II trial results represent a substantial improvement over the results of the Lux-Lung afatinib trial, which we believe may qualify Oncoprex in combination with erlotinib for Fast Track or Breakthrough Therapy designation. We believe that the unmet medical need may qualify for Priority Review based on a surrogate endpoint such as
clinical benefit, response rate, or progression free survival (PFS), with eligibility for Accelerated Approval.

Post-Approval Requirements

Maintaining post-approval compliance with applicable federal, state, and local statutes and regulations requires the expenditure of substantial time and financial resources. Rigorous and extensive FDA regulation of combination products continues after approval, particularly with respect to cGMP. We rely, and expect to continue to rely, on third parties for the production and distribution of clinical and commercial quantities of any products that we may commercialize. Manufacturers of our products are required to comply with applicable requirements in the cGMP regulations, including quality control and quality assurance and maintenance of records and documentation. Other post-approval requirements include reporting of cGMP deviations that may affect the identity, potency, purity and overall safety of a distributed product, record-keeping requirements, reporting of adverse effects, reporting updated safety and efficacy information, and complying with electronic record and signature requirements. After a BLA is approved, the product also may be subject to official lot release. As part of the manufacturing process, the manufacturer is required to perform certain tests on each lot of the product before it is released for distribution. If the product is subject to official release by the FDA, the manufacturer submits samples of each lot of product to the FDA together with a release protocol showing a summary of the history of manufacture of the lot and the results of all of the manufacturer's tests performed on the lot. The FDA also may perform certain confirmatory tests on lots of some products before releasing the lots for distribution by the manufacturer.

We also must comply with the FDA's advertising and promotion requirements, such as those related to direct-to-consumer advertising, the prohibition on promoting products for uses or in patient populations that are not described in the product's approved labeling (known as "off-label use"), industry-sponsored scientific and educational activities, and promotional activities involving the internet. Discovery of previously unknown problems or the failure to comply with the applicable regulatory requirements may result in restrictions on the marketing of a product or withdrawal of the product from the market as well as possible civil or criminal sanctions. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval, may subject an applicant or manufacturer to administrative or judicial civil or criminal sanctions and adverse publicity. FDA sanctions could include refusal to approve pending applications, withdrawal of an approval, clinical hold, warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, mandated corrective advertising or communications with doctors, debarment, restitution, disgorgement of profits, or civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on us.

Manufacturers and other entities involved in the manufacture and distribution of approved products are required to register the establishments where the approved products are made with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMPs and other laws. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance. Discovery of problems with a product after approval may result in restrictions on a product, manufacturer, or holder of an approved BLA, including withdrawal of the product from the market. In addition, changes to the manufacturing process or facility generally require prior FDA approval before being implemented. Other types of changes to the approved product, such as adding new indications and additional labeling claims, are also subject to further FDA review and approval.

U.S. Patent Term Restoration

Depending upon the timing, duration, and specifics of the FDA approval of the use of our current and potential product candidates, some of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent term restoration period is generally one-half the time between the effective date of an IND and the submission date of a BLA plus the time between the submission date of a BLA and the approval of that application. Only one patent applicable to an approved biological product is eligible for the extension and the application for the extension must be submitted prior to the expiration of the patent. The U.S. Patent and Trademark Office, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration.

Biosimilars and Exclusivity

The Biologics Price Competition and Innovation Act of 2009, or BPCIA, created an abbreviated approval pathway for biological products shown to be highly similar to, or interchangeable with, an FDA-licensed reference biological product. The FDA has issued several guidance documents outlining an approach to review and approval of biosimilars.

Biosimilarity, which requires that there be no clinically meaningful differences between the biological product and the reference product in terms of safety, purity, and potency, can be shown through analytical studies, animal studies, and a clinical study or studies. Interchangeability requires that a product is biosimilar to the reference product and the product must demonstrate that it can be expected to produce the same clinical results as the reference product in any given patient and, for products that are administered multiple times to an individual, the biologic and the reference biologic may be alternated or switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic. However, complexities associated with the larger, and often more complex, structures of biological products, as well as the processes by which such products are manufactured, pose significant hurdles to implementation of the abbreviated approval pathway that are still being worked out by the FDA.

The BPCIA includes, among other provisions:

- A 12-year exclusivity period from the date of first licensure of the reference product, during which approval of a 351(k) application referencing that product may not be made effective;
- A four-year exclusivity period from the date of first licensure of the reference product, during which a 351(k) application referencing that product may not be submitted; and
- An exclusivity period for certain biological products that have been approved through the 351(k) pathway as interchangeable biosimilars.

The BPCIA also establishes procedures for identifying and resolving patent disputes involving applications submitted under section 351(k) of the PHS Act.

A biological product can also obtain pediatric market exclusivity in the United States. Pediatric exclusivity, if granted, adds six months to existing exclusivity periods and patent terms. This six-month exclusivity, which runs from the end of other exclusivity protection or patent term, may be granted based on the voluntary completion of a pediatric clinical trial in accordance with an FDA-issued "Written Request" for such a clinical trial.

The BPCIA is complex and only beginning to be interpreted and implemented by the FDA. In addition, government proposals have sought to reduce the 12-year reference product exclusivity period. Other aspects of the BPCIA, some of which may impact the BPCIA exclusivity provisions, have also been the subject of recent litigation. As a result, the ultimate effect, implementation, and meaning of the BPCIA is subject to uncertainty.

Additional U.S. Regulation

In the United States, our activities are potentially subject to regulation by various federal, state and local authorities in addition to the FDA, including but not limited to, the Centers for Medicare and Medicaid Services, or CMS, other divisions of the U.S. Department of Health and Human Services, for instance the Office of Inspector General, the U.S. Department of Justice, or DOJ, and individual U.S. Attorney offices within the DOJ, and state and local governments. For example, sales, marketing and scientific/educational grant programs must comply with the anti-fraud and abuse provisions of the Social Security Act, the false claims laws, the physician payment transparency laws, the privacy and security provisions of the Health Insurance Portability and Accountability Act, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and similar state laws, each as amended.

In addition to the foregoing, state and federal laws regarding environmental protection and hazardous substances, including the Occupational Safety and Health Act, the Resource Conservancy and Recovery Act and the Toxic Substances Control Act, may affect our business. These and other laws govern our use, handling and disposal of various biological, chemical, and radioactive substances used in, and wastes generated by, our operations. If our operations result in contamination of the environment or expose individuals to hazardous substances, we could be liable for damages and governmental fines. We believe that we are in material compliance with applicable environmental laws and that continued compliance therewith is unlikely to have a material adverse effect on our business. We cannot predict, however, how changes in these laws may affect our future operations.

Federal and State Fraud and Abuse Laws

In the United States, our activities are potentially subject to regulation by various federal, state and local authorities in addition to the FDA, including but not limited to, CMS, other divisions of the U.S. Department of Health and Human Services, for instance, the Office of Inspector General, DOJ, and individual U.S. Attorney offices within the DOJ, and state and local governments. These federal and state laws, which generally will not be applicable to us or our current and potential product candidates unless and until we obtain FDA marketing approval for any of our current and potential product candidates, include, among others, anti-kickback statutes, false claims statutes, transparency laws, privacy and regulation regarding providing drug samples, sales and marketing activities and our relationships with customers and payors as follows.

The federal Anti-Kickback Statute prohibits, among other things, individuals and entities from knowingly and willfully offering, paying, soliciting, or receiving any remuneration, directly or indirectly, overtly or covertly, to induce or in return for purchasing, leasing, recommending, ordering, or arranging for the purchase, lease, recommendation or order of any health care item or service reimbursable, in whole or in part, under Medicare, Medicaid, or other federally financed healthcare programs. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on one hand and prescribers, purchasers, and formulary managers on the other. Although there are a number of statutory exemptions and regulatory safe harbors protecting certain common activities from prosecution, the exemptions and safe harbors are drawn narrowly, and practices that involve remuneration that may be alleged to be intended to induce prescribing, purchases, or recommendations may be subject to scrutiny if they do not qualify for an exemption or safe harbor. Additionally, the intent standard under the Anti-Kickback Statute was amended by the Affordable Care Act to a stricter standard such that a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. Further, the Affordable Care Act codified case law that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal civil False Claims Act.

HIPAA created additional federal criminal statutes that prohibit, among other actions, knowingly and willfully executing, or attempting to execute, a scheme to defraud or to obtain, by means of false or fraudulent pretenses, representations or promises, any money or property owned by, or under the control or custody of, any healthcare benefit program, including private third-party payers, willfully obstructing a criminal investigation of a healthcare offense, and knowingly and willfully falsifying, concealing or covering up by trick, scheme or device, a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation.

Federal false claims and civil monetary penalties laws, including the federal civil False Claims Act, prohibit, among other things, any person or entity from knowingly presenting, or causing to be presented, a false, fictitious or fraudulent claim for payment to, or approval by, the federal government, or knowingly making, using, or causing to be made or used, a false statement to get a false claim paid. Several pharmaceutical and other health care companies have been prosecuted under these laws for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. Other companies have been prosecuted for causing false claims to be submitted because of the company's marketing of the product for unapproved, and thus non-reimbursable, uses.

The majority of states also have statutes or regulations similar to the federal Anti-Kickback Statute and false claims laws, which apply to items and services, reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payer.

We may also be subject to data privacy and security regulations by both the federal government and the states in which we conduct our business. HIPAA, as amended by HITECH, and their respective implementing regulations, including the final Omnibus Rule published in 2013, imposes requirements on certain types of entities, including mandatory contractual terms, relating to the privacy, security, and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA's security standards and certain privacy standards directly applicable to business associates, which are independent contractors or agents of covered entities that create, receive, maintain or transmit protected health information in connection with providing a service for or on behalf of a covered entity. HITECH also created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions. In addition, many state laws govern the privacy and security of health information in specified circumstances, many of which differ from each other and from HIPAA in significant ways and may not have the same requirements, thus complicating compliance efforts.

Additionally, the federal Physician Payments Sunshine Act under the Affordable Care Act, and its implementing regulations, require that certain manufacturers of drugs, devices, biological and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, with certain exceptions, annually report to CMS information related to certain payments or other transfers of value made or distributed to physicians and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, the physicians and teaching hospitals and to report annually certain ownership and investment interests held by physicians and their immediate family members. Failure to submit timely, accurately, and completely the required information may result in civil monetary penalties of up to an aggregate of $150,000 per year and up to an aggregate of $1 million per year for "knowing failures". Certain states also mandate implementation of compliance programs, impose restrictions on pharmaceutical manufacturer marketing practices, and/or require the tracking and reporting of gifts, compensation, and other remuneration to healthcare providers and entities.

Because of the breadth of these laws and the narrowness of the exceptions and safe harbors, it is possible that some of our business activities could be subject to challenge under one or more of such laws. Such a challenge could have a material adverse effect on our business, financial condition, and results of operations. If our operations are found to be in violation of any of these or any other health regulatory laws that may apply to us, we may be subject to, without limitation, significant penalties, including the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, disgorgement, individual imprisonment, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

In addition, as part of the sales and marketing process, pharmaceutical companies frequently provide samples of approved products to physicians. This practice is regulated by the FDA and other governmental authorities, including, in particular, requirements concerning record keeping and control procedures. Any failure to comply with the regulations may result in significant criminal and civil penalties as well as damage to our credibility in the marketplace.

Coverage and Reimbursement

In many of the markets where we may do business in the future, the prices of pharmaceutical products are subject to direct price controls (by law) and to reimbursement programs with varying price control mechanisms. In the United States, significant uncertainty exists as to the coverage and reimbursement status of any product candidates for which we obtain product approval. Often private payers follow the coverage and reimbursement decisions of the Medicare program, and it is difficult to predict how CMS may decide to cover and reimburse approved products, especially novel products, and those determinations are subject to change.

Moreover, the process for determining whether a third-party payer will provide coverage for a drug product may be separate from the process for setting the price of a drug product or for establishing the reimbursement rate that such a payer will pay for the drug product. Third-party payers may limit coverage to specific products on an approved list, also known as a formulary, which might not include all of the FDA-approved drugs for a particular indication. A decision by a third-party payer not to cover our current and potential product candidates could reduce physician utilization of our products once approved. A payer's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Further, one payer's determination to provide coverage for a drug product does not assure that other payers will also provide coverage for the drug product. Coverage and reimbursement for new products can differ significantly from payer to payer. As a result, the coverage determination process will require us to provide scientific and clinical support for the use of our products to each payer separately and will be a time-consuming process. Additionally, third-party reimbursement may not be available or may not be adequate to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development.

The marketability of any product candidates for which we or our collaborators receive regulatory approval for commercial sale may suffer if the government and third-party payers fail to provide adequate coverage and reimbursement. In addition, an emphasis on cost containment measures in the United States has increased and we expect will continue to increase the pressure on pharmaceutical pricing. Third-party payers are increasingly challenging the prices charged for medical products and services, examining the medical necessity and reviewing the cost-effectiveness of drugs, medical devices and medical services, in addition to questioning safety and efficacy. If these third-party payers do not consider our products to be cost-effective compared to other available therapies, they may not cover our products after FDA approval or, if they do, the level of payment may not be sufficient to allow us to sell our products at a profit. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which we or our collaborators receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

Health Care Reform

In March 2010, the Affordable Care Act was enacted, which affected, and may further affect, health care financing and delivery by both governmental and private insurers, and therefore the pharmaceutical and biotechnology industry. The Affordable Care Act has affected and may continue to affect existing government healthcare programs and may result in the development of new programs.

Among the Affordable Care Act's provisions of importance to the pharmaceutical and biotechnology industries, in addition to those otherwise described above, are the following:

- an annual, nondeductible fee on any entity that manufactures or imports certain specified branded prescription drugs and biologic agents apportioned among these entities according to their market share in some government healthcare programs;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program, to 23.1% and 13% of the average manufacturer price for most branded and generic drugs, respectively and capped the total rebate amount for innovator drugs at 100% of the Average Manufacturer Price, or AMP;
- a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for certain drugs and biologics, including our current and potential product candidates, that are inhaled, infused, instilled, implanted or injected;
- extension of manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals and by adding new mandatory eligibility categories for individuals with income at or below 133% of the federal poverty level, thereby potentially increasing manufacturers' Medicaid rebate liability;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D;
- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research;

- establishment of a Center for Medicare Innovation at CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending that began on January 1, 2011; and
- a licensure framework for follow on biologic products.

There have been judicial and Congressional challenges to certain aspects of the Affordable Care Act. As a result, there have been delays in the implementation of, and action taken to repeal or replace, certain aspects of the Affordable Care Act. In January 2017, President Trump signed an Executive Order directing federal agencies with authorities and responsibilities under the Affordable Care Act to waive, defer, grant exemptions from or delay the implementation of any provision of the Affordable Care Act that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers or manufacturers of pharmaceuticals or medical devices. Further, in January 2017, Congress adopted a budget resolution for fiscal year 2017, or the Budget Resolution, that authorizes the implementation of legislation that would repeal portions of the Affordable Care Act.

Other legislative changes have been proposed and adopted in the United States since the Affordable Care Act was enacted. For example, in August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the fiscal year 2012 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers of up to 2% per fiscal year, which went into effect in April 2013 and, due to the Bipartisan Budget Act of 2015, will remain in effect through 2025 unless additional Congressional action is taken. Further, in January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, further reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

We anticipate that the Affordable Care Act and other legislative reforms will result in additional downward pressure on the price that we receive for any approved product, if covered, and could seriously harm our business. Any reduction in reimbursement from Medicare and other government programs may result in a similar reduction in payments from private payers. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our products. In addition, it is possible that there will be further legislation or regulation that could harm our business, financial condition, and results of operations.

Environmental Regulation

In addition to the foregoing, state and federal laws regarding environmental protection and hazardous substances, including the Occupational Safety and Health Act, the Resource Conservancy and Recovery Act and the Toxic Substances Control Act, may affect our business. These and other laws govern our use, handling and disposal of various biological, chemical, and radioactive substances used in, and wastes generated by, our operations. If our operations result in contamination of the environment or expose individuals to hazardous substances, we could be liable for damages and governmental fines. We believe that we are in material compliance with applicable environmental laws and that continued compliance therewith is unlikely to have a material adverse effect on our business. We cannot predict, however, how changes in these laws may affect our future operations.

U.S. Foreign Corrupt Practices Act

The U.S. Foreign Corrupt Practices Act, to which we are subject, prohibits corporations and individuals from engaging in certain activities to obtain or retain business or to influence a person working in an official capacity. It is illegal to pay, offer to pay or authorize the payment of anything of value to any foreign government official, government staff member, political party, or political candidate in an attempt to obtain or retain business or to influence otherwise a person working in an official capacity.

Government Regulation Outside of the United States

In addition to regulations in the United States, we will be subject to a variety of regulations in other jurisdictions governing, among other things, clinical trials and any commercial sales and distribution of our products. Because biologically sourced raw materials are subject to unique contamination risks, their use may be subjected to different types of restrictions in different countries.

Whether or not we obtain FDA approval for a product, we must obtain the required approvals from regulatory authorities in foreign countries prior to the commencement of clinical trials or marketing of the product in those countries. Certain countries outside of the United States have a similar process that requires the submission of a clinical trial application equivalent to an IND prior to the commencement of human clinical trials. In the European Union, for example, a clinical trial authorization, or CTA, must be submitted to each country's national health authority and an independent ethics committee, much like the FDA and the IRB, respectively. Once the CTA is approved in accordance with a country's requirements, clinical trials may start.

The requirements and process governing the conduct of clinical trials, product licensing, pricing, and reimbursement vary from country to country. In all cases, the clinical trials are to be conducted in accordance with GCP, applicable regulatory requirements, and the ethical principles that have their origin in the Declaration of Helsinki.

If we fail to comply with applicable foreign regulatory requirements, we may be subject to, among other things, fines, suspension, or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution in those countries.

Employees

As of April 6,2018, we had four full-time employees and one part-time employee, and accordingly, a high percentage of the work performed for our development projects is outsourced to qualified independent contractors.

Geographic Information

During 2017 and 2016 all of our long-lived assets were located in the United States of America.

Corporate Information

We were incorporated in Delaware in April 2009. Our principal executive offices are located at 100 Congress Avenue, Suite 2000, Austin, TX 78701, and our telephone number is (512) 370-4081. Our corporate website address is www.genprex.com.

Information contained on, or that can be accessed through, our website or social medial sites does not constitute part of this Annual Report on Form 10-K or any other report or document we file with the SEC, and any references to our website and social media sites are intended to be inactive textual references only.

This Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and any amendments to those reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, are available (free of charge) on our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission, or SEC.

We have proprietary rights to a number of trademarks, including Oncoprex™, that are used in this Annual Report on Form 10-K. Solely for convenience, the trademarks and trade names in this Annual Report on From 10-K are generally referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. All other trademarks, trade names and service marks appearing in this Annual Report on Form 10-K are the property of their respective owners.

We qualify as an "emerging growth company" as the term is used in The Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and therefore, we may take advantage of certain exemptions from various public company reporting requirements, including:

- a requirement to only have two years of audited financial statements and only two years of related selected financial data and management's discussion and analysis;
- exemption from the auditor attestation requirement on the effectiveness of our internal controls over financial reporting;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory stockholder vote on executive compensation and any golden parachute payments.

We may take advantage of these provisions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company if we have more than $1.0 billion in annual revenues, have more than $700 million in market value of our capital stock held by nonaffiliates or issue more than $1.0 billion of non-convertible debt over a three-year period. We may choose to take advantage of some, but not all, of the available benefits of the JOBS Act. We have taken advantage of some of the reduced reporting requirements in this Annual Report on Form 10-K. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold stock. In addition, the JOBS Act provides that an emerging growth company can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

Item 1A. Risk Factors.

Investing in our common stock involves a high degree of risk. You should carefully consider each of the following risks, together with all other information set forth in this Annual Report on Form 10-K, including the financial statements and the related notes, before making a decision to purchase, hold or sell our common stock. If any of the following risks actually occurs, our business could be harmed. In that case, the trading price of our common stock could decline, and you may lose all or part of your investment.

Risks Related to Our Financial Position and Need for Additional Capital

We will require substantial additional funding, which may not be available to us on acceptable terms, or at all, and, if not so available, may require us to delay, limit, reduce or cease our operations.

We intend to use the proceeds from the recently completed initial public offering of our common stock to advance Oncoprex through clinical development, as well as for other purposes. Developing pharmaceutical products, including conducting preclinical studies and clinical trials, is expensive. We will require substantial additional future capital in order to complete clinical development and commercialize Oncoprex. If the FDA requires that we perform additional preclinical studies or clinical trials, our expenses will further increase beyond what we currently expect and the anticipated timing of any potential approval of Oncoprex would likely be delayed. Further, there can be no assurance that the costs we will need to incur to obtain regulatory approval of Oncoprex will not increase.

We will continue to require substantial additional capital to continue our clinical development and commercialization activities. Because successful development of our current and potential product candidates is uncertain, we are unable to estimate the actual amount of funding we will require to complete research and development and commercialize our products under development.

The amount and timing of our future funding requirements will depend on many factors, including but not limited to:

- the progress, costs, results and timing of our clinical trials for Oncoprex;
- the outcome, costs and timing of seeking and obtaining FDA and any other regulatory approvals;
- the ability of third parties to deliver materials and provide services for us;
- the costs associated with securing and establishing commercialization and manufacturing capabilities;
- market acceptance of our current and potential product candidates;
- the costs of acquiring, licensing or investing in businesses, products, product candidates and technologies;
- our ability to maintain, expand and enforce the scope of our intellectual property portfolio, including the amount and timing of any payments we may be required to make, or that we may receive, in connection with the licensing, filing, prosecution, defense and enforcement of any patents or other intellectual property rights;
- our need and ability to hire additional management and scientific and medical personnel;
- the effect of competing drug candidates and new product approvals;
- our need to implement additional internal systems and infrastructure, including financial and reporting systems; and
- the economic and other terms, timing of and success of our existing licensing arrangements and any collaboration, licensing or other arrangements into which we may enter in the future.

Some of these factors are outside of our control. The net proceeds from the recently completed initial public offering of our common stock were approximately $5.0 million, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We expect that the net proceeds from the recently completed initial public offering of our common stock and our existing cash, cash equivalents and marketable securities will be sufficient to fund our current operations through at least the next 10 months. This period could be shortened if there are any significant increases in planned spending on development programs or more rapid progress of development programs than anticipated. We do not believe that our existing capital resources and the proceeds of our initial public offering will be sufficient to enable us to complete the development and commercialization of Oncoprex. Accordingly, we expect that we will need to raise additional funds in the future.

We may seek additional funding through a combination of equity offerings, debt financings, government or other third-party funding, commercialization, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements. Additional funding may not be available to us on acceptable terms or at all. In addition, the terms of any financing may adversely affect the holdings or the rights of our stockholders. Any new equity securities we issue could have rights, preferences, and privileges superior to those of holders of our existing capital stock. In addition, the issuance of additional shares by us, or the possibility of such issuance, may cause the market price of our shares to decline. Any debt financing secured by us in the future could involve restrictive covenants relating to our capital-raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities.

If we are unable to obtain funding on a timely basis, we may be required to significantly curtail one or more of our research or development programs, our ability to continue to support our business growth and to respond to business challenges could be significantly limited, and we could be forced to halt operations. Accordingly, our business may fail, in which case you would lose the entire amount of your investment in our common stock.

We also could be required to seek funds through arrangements with collaborative partners or otherwise that may require us to relinquish rights to some of our technologies or product candidates or otherwise agree to terms unfavorable to us.

Our independent registered public accounting firm has indicated that our financial condition raises substantial doubt as to our ability to continue as a going concern.

Our financial statements have been prepared assuming that we will continue to operate as a going concern, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. However, our independent registered public accounting firm has included in its audit opinion for the years ended December 31, 2017 and 2016 a statement that there is substantial doubt as to our ability to continue as a going concern as a result of our recurring losses and financial condition on December 31, 2017 and 2016, unless we are able to obtain additional financing, enter into strategic alliances and/or sell assets. The reaction of investors to the inclusion of a going concern statement by our auditors, our current lack of cash resources and our potential inability to continue as a going concern may materially adversely affect our share price and our ability to raise new capital or enter into strategic alliances. If we become unable to obtain additional capital and to continue as a going concern, we may have to liquidate our assets and the values we receive for our assets in liquidation or dissolution could be significantly lower than the values reflected in our financial statements.

We have never been profitable, we have no products approved for commercial sale, and to date we have not generated any revenue from product sales. As a result, our ability to reduce our losses and reach profitability is unproven, and we may never achieve or sustain profitability.

We have never been profitable and do not expect to be profitable in the foreseeable future. We have not yet submitted any drug candidates for approval by regulatory authorities in the United States or elsewhere. From our inception on April 1, 2009, to December 31, 2017, we incurred an accumulated deficit of approximately $17.5 million. We incurred net losses of approximately $3.3 million and approximately $4.1 million for the years ended December 31, 2017 and 2016, respectively.

To date, we have devoted most of our financial resources to our corporate overhead and research and development, including our preclinical development activities and clinical trials. We have not generated any revenues from product sales. We expect to continue to incur losses for the foreseeable future, and we expect these losses to increase as we continue our development of, and seek regulatory approvals for our current and potential product candidates, prepare for and begin the commercialization of any approved products, and add infrastructure and personnel to support our continuing product development efforts. We anticipate that any such losses could be significant for the next several years. If Oncoprex or any of our other potential product candidates fails in clinical trials or does not gain regulatory approval, or if our drug candidates do not achieve market acceptance, we may never become profitable. As a result of the foregoing, we expect to continue to experience net losses and negative cash flows for the foreseeable future. These net losses and negative cash flows have had, and will continue to have, an adverse effect on our stockholders' equity and working capital.

Because of the numerous risks and uncertainties associated with pharmaceutical product development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve profitability. In addition, our expenses could increase if we are required by the FDA to perform studies or trials in addition to those currently expected, or if there are any delays in completing our clinical trials or the development of any of our drug candidates. The amount of future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenues.

We have a limited operating history and we expect a number of factors to cause our operating results to fluctuate on an annual basis, which may make it difficult to predict our future performance.

We are a clinical stage gene therapy company with a limited operating history. Our operations to date have been limited to conducting clinical and preclinical research. We have not yet obtained any regulatory approvals for any of our drug candidates. Consequently, any predictions made about our future success or viability may not be as accurate as they could be if we had a longer operating history or approved products on the market. Our operating results are expected to significantly fluctuate from quarter to quarter and year to year due to a variety of factors, many of which are beyond our control. Factors relating to our business that may contribute to these fluctuations include:

- any delays in regulatory review and approval of our current and potential product candidates in clinical development, including our ability to receive approval from the FDA for Oncoprex;
- delays in the commencement, enrollment and timing of clinical trials;
- the success of our clinical trials through all phases of clinical development;
- potential side effects of our current and potential product candidates that could delay or prevent approval or cause an approved drug to be taken off the market;
- our ability to obtain additional funding to develop product candidates;
- our ability to identify and develop additional drug candidates beyond Oncoprex;
- competition from existing products or new products that continue to emerge;
- the ability of patients or healthcare providers to obtain coverage or sufficient reimbursement for our products;
- our ability to adhere to clinical trial requirements directly or with third parties such as contract research organizations, or CROs;
- our dependency on third-party manufacturers to manufacture our products and key ingredients;
- our ability to establish or maintain collaborations, licensing or other arrangements, particularly with MD Anderson;
- our ability to defend against any challenges to our intellectual property including, claims of patent infringement;
- our ability to enforce our intellectual property rights against potential competitors;
- our ability to secure additional intellectual property protection for our drug candidates in development and associated technologies;
- our ability to attract and retain key personnel to manage our business effectively; and
- potential product liability claims.

Accordingly, the results of any historical quarterly or annual periods should not be relied upon as indications of future operating performance.

Risks Related to Development and Commercialization of Our Current and Potential Product Candidates

Our success depends greatly on the success of our development of Oncoprex for the treatment of non-small cell lung cancer, and our pipeline of product candidates beyond this lead indication is extremely early stage and limited.

At this time we are actively pursuing development of only one product candidate, Oncoprex for non-small cell lung cancer. Therefore, we are dependent on the success of Oncoprex in the near term. We cannot provide you any assurance that we will be able to successfully advance Oncoprex through the development process, or that any development problems we experience in the future will not cause significant delays or unanticipated costs, or that such development problems can be solved. We may also experience delays in developing a sustainable, reproducible and scalable manufacturing process or transferring that process to commercial partners, or developing or validating product release assays in a timely manner, which may prevent us from completing our clinical

trials or commercializing our products on a timely or profitable basis, if at all. Immunotherapy, gene therapy and biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of uncertainty. Because Oncoprex and our other potential product candidates are based upon novel technology, it is difficult to predict whether, either as stand-alone therapies or in combination with other drugs, they will show consistently favorable results and to predict the time and cost of their development and of subsequently obtaining regulatory approval. Few gene therapy products have been approved in the United States or Europe. We may find it difficult to enroll patients in our clinical studies, which could delay or prevent clinical studies of our current and potential product candidates. We may encounter delays in our clinical studies, or we may fail to demonstrate safety and efficacy to the satisfaction of FDA and other regulatory authorities. We may not be successful in our efforts to identify or discover additional product candidates, or to develop product candidates that we have identified.

Negative public opinion and increased regulatory scrutiny of gene therapy and genetic research may damage public perception of our current and potential product candidates or adversely affect our ability to conduct our business or obtain regulatory approvals for our current and potential product candidates.

Public perception may be influenced by claims that gene therapy is unsafe, and gene therapy may not gain the acceptance of the public or the medical community. In particular, our success will depend upon physicians specializing in the treatment of those diseases that our current and potential product candidates target prescribing treatments that involve the use of our current and potential product candidates in lieu of, or in addition to, existing treatments with which they are already familiar and for which greater clinical data may be available. More restrictive government regulations or negative public opinion would have a negative effect on our business or financial condition and may delay or impair the development and commercialization of our current and potential product candidates or demand for any products we may develop. Adverse events in our clinical trials, even if not ultimately attributable to our current and potential product candidates, and the resulting publicity could lead to increased governmental regulation, unfavorable public perception, potential regulatory delays in the testing or approval of our potential product candidates, stricter labeling requirements for those product candidates that are approved and a decrease in demand for any such product candidates. Concern about the environmental spread of our product, whether real or anticipated, may hinder the commercialization of our products.

Delays in the commencement, enrollment and completion of clinical trials could result in increased costs to us and delay or limit our ability to obtain regulatory approval for Oncoprex and our other potential product candidates.

Oncoprex has been tested in only one prior Phase I clinical study, involving 31 patients. In that study, Oncoprex was tested as a monotherapy. We believe that the best path for development is to develop a combination therapy of Oncoprex in combination with erlotinib and possibly other drugs. We have an ongoing Phase I/II clinical trial testing Oncoprex in combination with erlotinib. Enrollment was completed in March 2015 for the Phase I portion of this clinical trial, in which 18 patients were enrolled. The Phase II portion of our Phase I/II clinical trial is at an early stage, with a limited number of patients enrolled, and the favorable results observed so far may not continue in the current clinical trial or be replicated in other clinical trials, especially those involving larger numbers of patients. Even if the Phase I/II trial is successful, success in early clinical studies may not be indicative of results obtained in later studies. The results from our Phase I/II trial may not demonstrate sufficient safety and efficacy to support the submission of marketing approval for Oncoprex. Before we request marketing approval, the FDA may require us to conduct additional clinical studies, or evaluate subjects for an additional follow-up. Unless an accelerated approval process is allowed by the FDA, one or more Phase III studies is normally required for approval.

Delays in the commencement, enrollment and/or completion of clinical trials could increase our product development costs or delay or limit the regulatory approval of our current and potential product candidates. We do not know whether any future trials or studies of our other potential product candidates will begin on time or will be completed on schedule, if at all. The start or end of a clinical study is often delayed or halted due to changing regulatory requirements, changes in the proposed regulatory approval pathway for a drug candidate, manufacturing challenges, including delays or shortages in available drug product, required clinical trial administrative actions, slower than anticipated patient enrollment, changing standards of care, availability or prevalence of use of a comparative drug or required prior therapy, clinical outcomes or financial constraints. For instance, delays or difficulties in patient enrollment or difficulties in retaining trial participants can result in increased costs, longer development times or termination of a clinical trial. Clinical trials of a new product candidate require the enrollment of a sufficient number of patients, including patients who are suffering from the disease the product candidate is intended to treat and who meet other eligibility criteria. Rates of patient enrollment are affected by many factors, including the size of the patient population, the eligibility criteria for the clinical trial, that include the age and condition of the patients and the stage and severity of disease, the nature of the protocol, the proximity of patients to clinical sites and the availability of effective treatments and/or availability of other investigational treatment options for the relevant disease.

As the second phase of a Phase I/II clinical trial, MD Anderson researchers are conducting a Phase II clinical trial evaluating Oncoprex in combination with erlotinib in NSCLC. Enrollment eligibility criteria for this clinical trial are broad and include stage IV and recurrent NSCLC not potentially curable by radiotherapy or surgery, whether or not the patients have received prior

chemotherapy, and whether or not they have an activating EGFR mutation. The Phase II trial began in June 2015 and is ongoing at MD Anderson. Ten patients have been entered and nine are evaluable for response under the trial protocol, because they have received 2 or more cycles of treatment. Preliminary analysis of the data from these patients further supported our belief that Oncoprex may provide medical benefit in several subpopulations of NSCLC patients for which there is an unmet medical need, and may provide pathways for accelerated approval.

As a result of these initial findings, in April 2016, we suspended enrollment of new patients in this Phase II clinical trial to collect additional trial data and have it analyzed in order to seek FDA guidance as to whether the protocol for this clinical trial could be modified to expand enrollment and also to divide the patients into cohorts with a view toward seeking accelerated approval in one or more of these cohort populations. We have completed the collection and analysis of the additional preliminary data and expect to present our findings to the FDA within the next several months. Although the clinical trial is currently closed to new patient enrollment, it is not terminated, and is considered "ongoing" because activities such as patient follow-up and further data collection and analysis continue.

If we reach an agreement with the FDA regarding expanded patient enrollment and defined patient cohorts, then we plan to amend the trial protocol accordingly and proceed with the amended protocol at MD Anderson and several additional clinical trial sites. Amendments to the Phase II clinical trial protocol will require approval of the Investigational Review Board, or IRB, of each site where the amended trial is conducted. If we do not reach an agreement with the FDA on these changes, then we plan to reopen enrollment in the current version of the Phase II trial at MD Anderson and at additional clinical trial sites. In that event, we will need to provide MD Anderson with plans and funding to move ahead with the trial. Whether under the original protocol or a revised protocol, we intend to use a portion of the proceeds of the recently completed initial public offering of our common stock to add additional clinical trial sites.

A product candidate can unexpectedly fail at any stage of preclinical and clinical development. The historical failure rate for product candidates is high due to scientific feasibility, safety, efficacy, changing standards of medical care and other variables. The results from preclinical testing or early clinical trials of a product candidate may not predict the results that will be obtained in later phase clinical trials of the product candidate. We, the FDA or other applicable regulatory authorities may suspend clinical trials of a product candidate at any time for various reasons, including, but not limited to, a belief that subjects participating in such trials are being exposed to unacceptable health risks or adverse side effects, or other adverse initial experiences or findings. We may not have the financial resources to continue development of, or to enter into collaborations for, a product candidate if we experience any problems or other unforeseen events that delay or prevent regulatory approval of, or our ability to commercialize, product candidates, including:

- inability to obtain sufficient funds required for a clinical trial;
- inability to reach agreements on acceptable terms with current or prospective contract research organizations, or CROs, and trial sites, the terms of which can be subject to extensive negotiation and
- may vary significantly among different CROs and trial sites;
- negative or inconclusive results from our clinical trials or the clinical trials of others for product candidates similar to ours, leading to a decision or requirement to conduct additional preclinical testing or clinical trials or abandon a program;
- serious and unexpected drug-related side effects experienced by subjects in our clinical trials or by individuals using drugs similar to our current and potential product candidates;
- conditions imposed by the FDA or comparable foreign authorities regarding the scope or design of our clinical trials;
- delays in enrolling research subjects in clinical trials;
- high drop-out rates and high fail rates of research subjects;
- inadequate supply or quality of product candidate components or materials or other supplies necessary for the conduct of our clinical trials;
- greater than anticipated clinical trial costs;
- poor effectiveness of our current and potential product candidates during clinical trials; or
- unfavorable FDA or other regulatory agency inspection and review of a clinical trial site or vendor.

We may have difficulty engaging or retaining clinical trial sites and/or enrolling patients in our clinical trials, which could delay or prevent development of our current and potential product candidates.

Identifying and qualifying patients to participate in clinical trials of our current and potential product candidates is critical to our success. The timing of our clinical trials depends on the speed at which we can engage and retain clinical trial sites and recruit patients to participate in testing our current and potential product candidates. We have experienced delays in some of our clinical trials in the past due to difficulties with enrollment and we may experience similar delays in the future. We have suspended enrollment of new patients in the Phase II portion of our Phase I/II clinical trial evaluating Oncoprex in combination with erlotinib in NSCLC, and we may experience difficulties with enrollment upon reopening enrollment for the trial under the current protocol or a modified protocol. If patients are unwilling to participate in our clinical trials because of negative publicity from adverse events in the industry or in the trials for other third party product candidates, or for other reasons, including competitive clinical trials for similar patient populations, the timeline for engaging sites, recruiting patients, conducting studies and obtaining regulatory approval of potential products may be delayed. These delays could result in increased costs, delays in advancing our product development, delays in testing the effectiveness of our technology or termination of the clinical trials altogether.

We or our clinical trial sites may not be able to identify, recruit and enroll a sufficient number of patients, or those with the required or desired characteristics in a clinical trial, to complete our clinical trials in a timely manner. Patient enrollment is affected by factors including:

- severity of the disease under investigation;
- design of the clinical trial protocol, including the fact that certain of our clinical trials are randomized to current treatments;
- size of the patient population;
- eligibility criteria for the clinical trial in question;
- perceived risks and benefits of the product candidate under study;
- general level of excitement for the treatment approach;
- comments on social media;
- proximity and availability of clinical trial sites for prospective patients;
- availability of competing therapies and clinical trials;
- efforts to facilitate timely enrollment in clinical trials;
- patient referral practices of physicians; and
- ability to monitor patients adequately during and after treatment.

We currently plan to seek initial marketing approval in the United States and subsequently in Europe. We may not be able to initiate or continue clinical trials if we cannot enroll a sufficient number of eligible patients to participate in the clinical trials required by the FDA or the European Medicines Agency, or EMA, or other regulatory agencies. Our ability to successfully initiate, enroll and complete a clinical trial in any foreign country is subject to numerous risks unique to conducting business in foreign countries, including:

- difficulty in establishing or managing relationships with CROs and physicians;
- different standards for the conduct of clinical trials;
- our inability to locate qualified local consultants, physicians and partners; and
- the potential burden of complying with a variety of foreign laws, medical standards and regulatory requirements, including the regulation of pharmaceutical and biotechnology products and treatments.

If we have difficulty enrolling a sufficient number of patients to conduct our clinical trials as planned, we may need to delay, limit or terminate ongoing or planned clinical trials, any of which would have an adverse effect on our business.

Any product candidate we advance through clinical trials may not have favorable results in later clinical trials or receive regulatory approval.

Clinical failure can occur at any stage of our clinical development. Clinical trials may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or nonclinical studies. In addition, data obtained from trials and studies are susceptible to varying interpretations, and regulators may not interpret our data as favorably as we do, which may delay, limit or prevent regulatory approval. Success in preclinical studies and early clinical trials does not ensure that subsequent clinical trials will generate the same or similar results or otherwise provide adequate data to demonstrate the efficacy and safety of a product candidate. Thirty-one patients were treated in our first Phase I clinical trial of Oncoprex used as a monotherapy, and 28 patients have been enrolled to date (out of a possible total of 57) in our current Phase I/II clinical trial of Oncoprex in combination with erlotinib in NSCLC. Of the 28 patients, 18 were enrolled in the Phase I portion of the Phase I/II trial, and three of these 18 are also enrolled in the Phase II portion. Safety and efficacy results to date may not continue to be obtained as additional patients are treated, and may not be duplicated in future clinical trials. A number of companies in the pharmaceutical industry, including those with greater resources and experience than ours, have suffered significant setbacks in clinical trials, even after seeing promising results in earlier clinical trials.

In addition, the design of a clinical trial can determine whether its results will support approval of a product and flaws in the design of a clinical trial may not become apparent until the clinical trial is well advanced. We may be unable to design and execute a clinical trial to support regulatory approval. Further, clinical trials of potential products often reveal that it is not practical or feasible to continue development efforts.

If Oncoprex is found to be unsafe or lack efficacy, we will not be able to obtain regulatory approval for it and our business would be harmed.

In some instances, there can be significant variability in safety and/or efficacy results between different trials of the same product candidate due to numerous factors, including changes in trial protocols, differences in composition of the patient populations, adherence to the dosing regimen and other trial protocols and the rate of dropout among clinical trial participants. We do not know whether any clinical trials we or any of our potential future collaborators may conduct will demonstrate the consistent or adequate efficacy and safety that would be required to obtain regulatory approval and market any products. If we are unable to bring Oncoprex to market, or to acquire other products that are on the market or can be developed, our ability to create stockholder value will be limited.

Even if we obtain regulatory approval of our current and potential product candidates, the products may not gain market acceptance among physicians, patients, hospitals, cancer treatment centers, third-party payors and others in the medical community.

Ethical, social and legal concerns about gene therapy and genetic research could result in additional regulations restricting or prohibiting the products and processes we may use. Even with the requisite approvals, the commercial success of our current and potential product candidates will depend in part on the medical community, patients, and third-party payors accepting gene therapy products in general, and our current and potential product candidates in particular, as medically useful, cost-effective and safe. Any product that we bring to the market may not gain market acceptance by physicians, patients, third-party payors and others in the medical community. If these products do not achieve an adequate level of acceptance, we may not generate significant product revenue and may not become profitable. The degree of market acceptance of these product candidates, if approved for commercial sale, will depend on a number of factors, including:

- the clinical indications for which our current and potential product candidates are approved;
- physicians, hospitals, cancer treatment centers and patients considering our current and potential product candidates as a safe and effective treatment;
- the potential and perceived advantages of our current and potential product candidates over alternative treatments;
- the prevalence and severity of any side effects;
- product labeling or product insert requirements of the FDA or other regulatory authorities;
- limitations or warnings contained in the labeling approved by the FDA;
- the timing of market introduction of our current and potential product candidates as well as competitive products;
- the cost of treatment in relation to alternative treatments;
- the availability of adequate coverage, reimbursement and pricing by third-party payors and government authorities;

- the willingness of patients to pay out-of-pocket in the absence of coverage by third-party payors, including government authorities;
- the willingness, ability and availability of healthcare providers that can comply with the transportation, handling, and temperature-controlled storage requirements associated with our current and potential product candidates;
- relative convenience and ease of administration, including as compared to alternative treatments and competitive therapies; and
- the effectiveness of our sales and marketing efforts.

Even if a potential product displays a favorable efficacy and safety profile in preclinical and clinical trials, market acceptance of the product will not be known until after it is launched. Our efforts to educate the medical community and third-party payors on the benefits of the product candidates may require significant resources and may never be successful. Such efforts to educate the marketplace may require more resources than are required by the conventional technologies marketed by our competitors and may be restricted by the allowed label.

Our current and potential product candidates may have undesirable side effects that may delay or prevent marketing approval, or, if approval is received, require them to be taken off the market, require them to include safety warnings or otherwise limit their sales.

In our Phase I clinical trial of Oncoprex as a monotherapy, the only serious adverse events, defined as grade 3, 4 or 5 events under the Common Terminology Criteria for Adverse Events, or CTCAE, published by the U.S. Department of Health and Human Services, were grade 3 fever and grade 3 hypotension, and the only dose-limiting toxicities were two episodes of transient grade 3 hypophosphatemia (abnormally low levels of phosphate in the blood).

The Phase I portion of our Phase I/II trial combining Oncoprex with erlotinib was a dose escalation study with the primary purpose of determining the MTD. Dose Limiting Toxicities were defined as grade 3, 4, or 5 events during the first cycle of treatment that were considered to be treatment related. At dose level 1 (Oncoprex .045 mg/kg plus erlotinib 100 mg), one subject had grade 3 adverse events of fatigue, muscle weakness, and hyponatremia (low sodium level) considered to be related to the study treatment (erlotinib); therefore, three additional subjects were treated at this dose level (six subjects total), none of whom suffered a Dose Limiting Toxicity. At dose level 2 (Oncoprex .06 mg/kg plus erlotinib 100 mg), there were no Dose Limiting Toxicities. At dose level 3 (Oncoprex .45 mg/kg plus erlotinib 150 mg), one subject had a grade 3 rash considered to be related to the study treatment (erlotinib); therefore, an additional three subjects were treated at this dose level (six subjects total). No additional subjects suffered a Dose Limiting Toxicity at dose level 3. At dose level 4 (Oncoprex .06 mg/kg plus erlotinib 150 mg), there were no Dose Limiting Toxicities; thus dose level 4 was determined to be the MTD. None of the 10 subjects treated to date in the Phase II portion of the Phase I/II trial suffered a Dose Limiting Toxicity.

Additional or unforeseen side effects from Oncoprex or any of our other potential product candidates could arise either during clinical development or, if approved, after the approved product has been marketed. A showing that Oncoprex or any other product candidate causes undesirable or unacceptable side effects could interrupt, delay or halt clinical trials and result in the failure to obtain or suspension or termination of marketing approval from the FDA and other regulatory authorities, or result in marketing approval from the FDA and other regulatory authorities only with restrictive label warnings.

If any of our current and potential product candidates receives marketing approval and we or others later identify undesirable or unacceptable side effects caused by such products:

- regulatory authorities may require the addition of labeling statements, specific warnings, a contraindication or field alerts to physicians and pharmacies;
- we may be required to change instructions regarding the way the product is administered, conduct additional clinical trials or change the labeling of the product;
- we may be subject to limitations on how we may promote the product;
- sales of the product may decrease significantly;
- regulatory authorities may require us to take our approved product off the market;
- we may be subject to litigation or product liability claims; and
- our reputation may suffer.

Any of these events could prevent us or our potential future collaborators from achieving or maintaining market acceptance of the affected product or could substantially increase commercialization costs and expenses, which in turn could delay or prevent us from generating significant revenues from the sale of our products.

We may face product liability claims.

In the event Oncoprex or any of our other potential product candidates is approved for marketing by the FDA and other regulatory authorities, we may face potential product liability. If successful claims are brought against us, we may incur substantial liability and costs. If the use of our current and potential product candidates harms patients, or is perceived to harm patients even when such harm is unrelated to our current and potential product candidates, our regulatory approvals could be revoked or otherwise negatively impacted, and we could be subject to costly and damaging product liability claims.

Our internal computer systems, or those used by our CROs, contractors or consultants, may fail or suffer security breaches.

Despite the implementation of security measures, our internal computer systems and those of our CROs, contractors and consultants are vulnerable to damage from computer viruses and unauthorized access, as well as being vulnerable to other system difficulties, failures or disruptions. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our development programs and our business operations. For example, the loss of clinical trial data from completed or future clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability, and the further development and commercialization of our current and potential product candidates could be delayed.

Business disruptions could seriously harm our future revenue and financial condition and increase our costs and expenses.

Our operations, and those of our CROs, contractors and consultants, could be subject to power shortages, telecommunications failures, wildfires, water shortages, floods, earthquakes, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics and other natural or man-made disasters or business interruptions. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses. Our ability to obtain clinical supplies of our current and potential product candidates could be disrupted if the operations of our contract manufacturers are affected by a man-made or natural disaster or other business interruption. Unfavorable global economic conditions could adversely affect our business, financial condition, or results of operations.

We do not carry insurance for all categories of risk that our business may encounter. In particular, we do not carry product liability insurance covering any clinical trials liability that we may incur. Although we intend to obtain such insurance before we market any product, there can be no assurance that we will secure adequate insurance coverage or that any such insurance coverage will be sufficient to protect our operations to significant potential liability in the future. Any significant uninsured liability may require us to pay substantial amounts, which would adversely affect our financial position and results of operations.

We face competition from other biotechnology and pharmaceutical companies and our operating results will suffer if we fail to compete effectively.

The biotechnology and pharmaceutical industries are intensely competitive and subject to rapid and significant technological change. We have competitors in the United States, Europe and elsewhere, including major multinational pharmaceutical companies, established biotechnology companies, specialty pharmaceutical and generic drug companies and universities and other research institutions. Many of our competitors have greater financial and other resources, such as larger research and development staff and more experienced marketing and manufacturing organizations than we do. Large pharmaceutical companies, in particular, have extensive experience in clinical testing, obtaining regulatory approvals, recruiting patients and manufacturing pharmaceutical products. These companies also have significantly greater research, sales and marketing capabilities and collaborative arrangements in our target markets with leading companies and research institutions. Established pharmaceutical companies may also invest heavily to accelerate discovery and development of novel compounds or to in-license novel compounds that could make the product candidates that we develop obsolete. As a result of these factors, our competitors may succeed in obtaining patent protection and/or FDA approval or discovering, developing and commercializing drugs for the cancer indications that we are targeting before we do or may develop drugs that are deemed to be more effective or gain greater market acceptance than ours. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large, established companies. In addition, many universities and private and public research institutes may become active in our target disease areas. Our competitors may succeed in developing, acquiring or licensing on an exclusive basis, technologies and drug products that are more effective or less costly than any product candidates that we are currently developing or that we may develop, which could render our products obsolete or noncompetitive.

There are a number of drugs approved and under development for treatment of lung cancer. Treatments competitive with our primary product candidates generally fall into the following categories: chemotherapies such as cisplatin, carboplatin, docetaxel and pemetrexed; targeted therapies such as erlotinib, gefitinib, afatinib and osimertinib (marketed as Tagrisso® by AstraZeneca Pharmaceuticals), and immunotherapies such as checkpoint inhibitors and CAR and CAR T cells, and oncolytic virus-based technology. Data indicate that Oncoprex, when combined with certain targeted therapies and immunotherapies, may enhance the benefit of those therapies; therefore, we believe that Oncoprex could be administered in combination with targeted therapies and immunotherapies and thus may not be a direct competitor of those drugs. In addition, new drug candidates are constantly being conceived and developed. Any such competing therapy may be more effective and/or cost-effective than ours.

If our competitors market products that are more effective, safer or less expensive or that reach the market sooner than our future products, if any, we may not achieve commercial success. In addition, because of our limited resources, it may be difficult for us to stay abreast of the rapid changes in each technology. If we fail to stay at the forefront of technological change, we may be unable to compete effectively. Technological advances or products developed by our competitors may render our technologies or product candidates obsolete, less competitive or not economical.

Risks Related to Regulatory Approval and Marketing of Our Current and Potential Product Candidates and Other Legal Compliance Matters

We cannot be certain that Oncoprex will receive regulatory approval, and without regulatory approval we will not be able to market Oncoprex.

Our business currently depends largely on the successful development and commercialization of Oncoprex. Our ability to generate revenue related to product sales, if ever, will depend on the successful development and regulatory approval of Oncoprex for the treatment of cancer. Even if we complete the necessary clinical studies, we cannot predict when or if we will obtain regulatory approval to commercialize a product candidate. Further, if we do obtain regulatory approval, it may only apply to a more narrow indication than we expect. Even if we obtain regulatory approval for a product candidate, our products will remain subject to regulatory scrutiny.

We currently have no products approved for sale and we cannot guarantee that we will ever have marketable products. The development of a product candidate and issues relating to its approval and marketing are subject to extensive regulation by the FDA in the United States and regulatory authorities in other countries, with regulations differing from country to country. We are not permitted to market our current and potential product candidates in the United States until we receive approval of a Biologics License Application, or BLA, from the FDA. We have not submitted any marketing applications for any of our current and potential product candidates.

BLAs must include extensive preclinical and clinical data and supporting information to establish the product candidate’s safety and effectiveness for each desired indication. BLAs must also include significant information regarding the chemistry, manufacturing and controls for the product. Obtaining approval of a BLA is a lengthy, expensive and uncertain process, and we may not be successful in obtaining approval. The FDA review processes can take years to complete and approval is never guaranteed. If we submit a BLA to the FDA, the FDA must decide whether to accept or reject the submission for filing. We cannot be certain that any submissions will be accepted for filing and review by the FDA. Regulators in other jurisdictions have their own procedures for approval of product candidates. Even if a product is approved, the FDA may limit the indications for which the product may be marketed, require extensive warnings on the product labeling or require expensive and time-consuming clinical trials or reporting as conditions of approval. Regulatory authorities in countries outside of the United States and Europe also have requirements for approval of drug candidates with which we must comply with prior to marketing in those countries. Obtaining regulatory approval for marketing of a product candidate in one country does not ensure that we will be able to obtain regulatory approval in any other country. In addition, delays in approvals or rejections of marketing applications in the United States, Europe or other countries may be based upon many factors, including regulatory requests for additional analyses, reports, data, preclinical studies and clinical trials, regulatory questions regarding different interpretations of data and results, changes in regulatory policy during the period of product development and the emergence of new information regarding our current and potential product candidates or other products. Also, regulatory approval for any of our current and potential product candidates may be withdrawn.

If we are unable to obtain approval from the FDA, or other regulatory agencies, for Oncoprex, or if, subsequent to approval, we are unable to successfully commercialize Oncoprex or our other potential product candidates, we will not be able to generate sufficient revenue to become profitable or to continue our operations.

In addition, the clinical trial requirements of the FDA, the European Medicines Agency, or EMA, and other regulatory agencies and the criteria these regulators use to determine the safety and efficacy of a product candidate vary substantially according to the type, complexity, novelty and intended use and market of the potential products. The regulatory approval process for novel product candidates such as ours can be more expensive and take longer than for other, better known or extensively studied pharmaceutical or other product candidates.

Regulatory requirements governing gene therapy products have changed frequently and may continue to change in the future. For example, in January 2017, the FDA Oncology Center of Excellence, or the Center of Excellence, was created to leverage the combined skills of regulatory scientists and reviewers with expertise in drugs, biologics, and devices (including diagnostics). While the Center of Excellence is designed to help expedite the development of oncology and malignant hematology-related medical products and support an integrated approach in the clinical evaluation of drugs, biologics and devices for the treatment of cancer, the new Center of Excellence may initially create confusion within the FDA and especially in the Center of Biologics and Research that is the primary review division for Oncoprex. Gene therapy clinical trials conducted at institutions that receive funding for recombinant DNA research from the U.S. National Institutes of Health, or the NIH, are also subject to review by the NIH Office of Biotechnology Activities' Recombinant DNA Advisory Committee, or the RAC. Although the FDA decides whether individual gene therapy protocols may proceed, the RAC review process can impede the initiation of a clinical trial, even if the FDA has reviewed the study and approved its initiation. Conversely, the FDA can put an Investigational New Drug application, or IND, on a partial or complete clinical hold even if the RAC has provided a favorable review. Also, before a clinical trial can begin at an NIH-funded institution, that institution's institutional review board, or IRB, and its Institutional Biosafety Committee will have to review the proposed clinical trial to assess the safety of the study. In addition, adverse developments in clinical trials of gene therapy products conducted by others may cause the FDA or other regulatory bodies to change the requirements for performing studies or for obtaining approval of any of our current and potential product candidates.

These regulatory review committees and advisory groups, and the new guidelines they promulgate, may lengthen the regulatory review process, require us to perform additional studies, increase our development costs, lead to changes in regulatory positions and interpretations, delay or prevent approval and commercialization of our current and potential product candidates or lead to significant post-approval limitations or restrictions. As we advance our current and potential product candidates, we will be required to consult with these regulatory and advisory groups and comply with applicable guidelines. Delay or failure to obtain, or unexpected costs in obtaining, the regulatory approval necessary to bring a potential product to market could decrease our ability to generate sufficient revenue to maintain our business.

If the FDA does not find the manufacturing facilities of our future contract manufacturers acceptable for commercial production, we may not be able to commercialize any of our current and potential product candidates.

We do not intend to manufacture the pharmaceutical products that we plan to sell. We are currently utilizing contract manufacturers for the production of the active pharmaceutical ingredients and the formulation of drug product for the trials of Oncoprex currently being conducted or will need to be conducted prior to seeking regulatory approval. However, we do not have agreements for supplies of Oncoprex or any of our other potential product candidates and we may not be able to reach agreements with these or other contract manufacturers for sufficient supplies to commercialize Oncoprex if it is approved. Additionally, the facilities used by any contract manufacturer to manufacture Oncoprex or any of our other potential product candidates must be the subject of a satisfactory inspection before the FDA approves the product candidate manufactured at that facility. We are completely dependent on these third-party manufacturers for compliance with the requirements of U.S. and non-U.S. regulators for the manufacture of our finished products. If our manufacturers cannot successfully manufacture materials that conform to our specifications and the FDA's current good manufacturing practices, or cGMP, standards and other requirements of any governmental agency to whose jurisdiction we are subject, our current and potential product candidates will not be approved or, if already approved, may be subject to recalls. Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured our current and potential product candidates, including:

- the possibility that we are unable to enter into a manufacturing agreement with a third party to manufacture our current and potential product candidates;
- the possible breach of the manufacturing agreements by the third parties because of factors beyond our control; and
- the possibility of termination or nonrenewal of the agreements by the third parties before we are able to arrange for a qualified replacement third-party manufacturer.

Any of these factors could cause the delay of approval or commercialization of our current and potential product candidates, cause us to incur higher costs or prevent us from commercializing our current and potential product candidates successfully. Furthermore, if any of our current and potential product candidates are approved and contract manufacturers fail to deliver the required commercial quantities of finished product on a timely basis at commercially reasonable prices and we are unable to find one

or more replacement manufacturers capable of production at a substantially equivalent cost, in substantially equivalent volumes and quality and on a timely basis, we would likely be unable to meet demand for our products and could lose potential revenue. It may take several years to establish an alternative source of supply for our current and potential product candidates and to have any such new source approved by the government agencies that regulate our products.

We may be subject, directly or indirectly, to federal and state healthcare fraud and abuse laws, false claims laws and other federal and state healthcare laws, and the failure to comply with such laws could result in substantial penalties. Our employees, independent contractors, consultants, principal investigators, CROs, commercial partners and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

We are exposed to the risk of fraud, misconduct or other illegal activity by our employees, independent contractors, consultants, principal investigators, CROs, commercial partners and vendors. Misconduct by these parties could include intentional, reckless and/or negligent conduct that fails to: comply with the laws of the FDA and similar foreign regulatory bodies; provide true, complete and accurate information to the FDA and similar foreign regulatory bodies; comply with manufacturing standards we have established; comply with federal and state data privacy, security, fraud and abuse and other healthcare laws and regulations in the United States and similar foreign fraudulent misconduct laws; or report financial information or data accurately or to disclose unauthorized activities to us. If we obtain FDA approval for any of our current and potential product candidates and begin commercializing those products in the United States, our potential exposure under such laws would increase significantly, and our costs associated with compliance with such laws would likely also increase. These laws may impact, among other things, our current activities with principal investigators and research patients, as well as proposed and future sales, marketing and education programs. In particular, the promotion, sales and marketing of healthcare items and services, as well as certain business arrangements in the healthcare industry, are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, including off-label uses of our products, structuring and commission(s), certain customer incentive programs and other business arrangements generally. Activities subject to these laws also involve the improper use or misrepresentation of information obtained in the course of patient recruitment for clinical trials, creating fraudulent data in our preclinical studies or clinical trials or illegal misappropriation of drug product, which could result in regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter misconduct by employees and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. Additionally, we are subject to the risk that a person or government could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of fines or other sanctions. The laws that may affect our ability to operate include, but are not limited to:

- the Federal Anti-Kickback Statute, which prohibits, among other things, individuals and entities from knowingly and willfully soliciting, receiving, offering or paying any remuneration (including any kickback, bribe, or rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce, or in return for, either the referral of an individual for, or the purchase, lease, order or recommendation of, any good, facility, item or service for which payment may be made, in whole or in part, under a federal healthcare program, such as the Medicare and Medicaid programs. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- federal civil and criminal false claims laws and civil monetary penalty laws, including the civil False Claims Act, which impose criminal and civil penalties, through government, civil whistleblower or qui tam actions, on individuals and entities for, among other things, knowingly presenting, or causing to be presented, claims for payment or approval from Medicare, Medicaid, or other third-party payors that are false, fictitious or fraudulent, or knowingly making, using or causing to be made or used, a false statement to avoid, decrease or conceal an obligation to pay money to the federal government. In addition, the government may assert that a claim including items and services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act;
- the Federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which imposes criminal and civil liability for, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud or to obtain any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private), willfully obstructing a criminal investigation of a healthcare offense, and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false, fictitious or fraudulent statements in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and their respective implementing regulations, which impose requirements on certain covered healthcare providers, health plans, and healthcare clearinghouses, as well as their respective business associates that perform services for them that involve the creation, use, maintenance or disclosure of, individually identifiable health information, relating to the privacy, security and transmission of individually identifiable health information without appropriate authorization;
- the federal physician payment transparency requirements, sometimes referred to as the "Physician Payments Sunshine Act," created under the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, collectively the Affordable Care Act, and its implementing regulations, which require certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to the United States Department of Health and Human Services information related to payments or other transfers of value made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members;
- the U.S. Federal Food, Drug and Cosmetic Act, or FDCA, which prohibits, among other things, the adulteration or misbranding of drugs and medical devices; and
- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers. Additionally, we are subject to state and foreign equivalents of each of the healthcare laws described above, among others, some of which may be broader in scope and may apply regardless of the payor.

It is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent inappropriate conduct may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. Efforts to ensure that our business arrangements will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental and enforcement authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other healthcare laws and regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of civil, criminal and administrative penalties, damages, disgorgement, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations. In addition, the approval and commercialization of any of our current and potential product candidates outside the United States will also likely subject us to foreign equivalents of the healthcare laws mentioned above, among other foreign laws.

Coverage and reimbursement may be limited or unavailable in certain market segments for our current and potential product candidates, if approved, which could make it difficult for us to sell our current and potential product candidates profitably.

The commercial success of any current or future product candidate will depend upon the degree of market acceptance by physicians, patients, insurance companies and other third party payors, and others in the medical community. Even if we obtain approval to commercialize our current and potential product candidates outside of the United States, a variety of risks associated with international operations could materially affect our business. Due to the novel nature of our technology, we face uncertainty related to pricing and reimbursement for our current and potential product candidates. The insurance coverage and reimbursement status of newly approved products is uncertain. Failure to obtain or maintain adequate coverage and reimbursement for new or current products could limit our ability to market those products and decrease our ability to generate revenue. If market opportunities for our current and potential product candidates are smaller than we believe they are, our revenues may be adversely affected and our business may suffer.

Successful sales of our products, if our current and potential product candidates are approved, depend on the availability of coverage and adequate reimbursement from third-party payors. In addition, because our current and potential product candidates represent new approaches to the treatment of cancer, we cannot be sure that coverage and reimbursement will be available for, or accurately estimate the potential revenue from, our current and potential product candidates. Patients who are provided medical treatment for their conditions generally rely on third-party payors to reimburse all or part of the costs associated with their treatment. Coverage and adequate reimbursement from governmental healthcare programs, such as Medicare and Medicaid, and commercial payors are critical to new product acceptance.

Government authorities and other third-party payors, such as private health insurers and health maintenance organizations, decide which drugs and treatments they will cover and the amount of reimbursement. Coverage and reimbursement by a third-party payor may depend upon a number of factors, including, but not limited to, the third-party payor's determination that use of a product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

In the United States, no uniform policy of coverage and reimbursement for products exists among third-party payors, and coverage and reimbursement for products can differ significantly from payor to payor. As a result, obtaining coverage and reimbursement approval of a product from a government or other third-party payor is a time-consuming and costly process that could require us to provide to each payor supporting scientific, clinical and cost-effectiveness data for the use of our products and to justify the level of coverage and reimbursement relative to other therapies, with no assurance that coverage and adequate reimbursement will be obtained. Third party payors may also have difficulty in determining the appropriate coverage of Oncoprex and our other potential product candidates that are combination products, if approved, due to the fact that they are combination products that include another drug. To the extent there are any delays in determining such coverage or inadequate coverage and reimbursement for all aspects of our combination therapies, it would adversely affect the market acceptance, demand and use of our current and potential product candidates. Any denial in coverage or reduction in reimbursement from Medicare or other government programs may result in a similar denial or reduction in payments from private payors, which may adversely affect our future profitability.

We intend to seek approval to market our current and potential product candidates in both the United States and in selected foreign jurisdictions. If we obtain approval in one or more foreign jurisdictions for our current and potential product candidates, we will be subject to rules and regulations in those jurisdictions. In some foreign countries, particularly those in the European Union, the pricing of biologics is subject to governmental control and other market regulations which could put pressure on the pricing and usage of our current and potential product candidates. In these countries, pricing negotiations with governmental authorities can take considerable time after obtaining marketing approval of a product candidate. In addition, market acceptance and sales of our current and potential product candidates will depend significantly on the availability of coverage and adequate reimbursement from third-party payors for our current and potential product candidates and may be affected by existing and future health care reform measures.

Healthcare legislative reform measures may have a material adverse effect on our business and results of operations.

Third-party payors, whether domestic or foreign, or governmental or commercial, are developing increasingly sophisticated methods of controlling healthcare costs. In both the United States and certain foreign jurisdictions, there have been a number of legislative and regulatory changes to the health care system that could affect our ability to sell our products profitably. In particular, in 2010, the Affordable Care Act was enacted in the United States. The Affordable Care Act and its implementing regulations, among other things, subjected biological products to potential competition by lower-cost biosimilars, revised the methodology by which rebates owed by manufacturers to the state and federal government for covered outpatient drugs and certain biologics, including our current and potential product candidates, under the Medicaid Drug Rebate Program are calculated, increased the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program, extended the Medicaid Drug Rebate program to utilization of prescriptions of individuals enrolled in Medicaid managed care organizations, subjected manufacturers to new annual fees and taxes for certain branded prescription drugs, and provided incentives to programs that increase the federal government's comparative effectiveness research. The current Presidential Administration and U.S. Congress may seek to modify, repeal, or otherwise invalidate all, or certain provisions of, the Affordable Care Act. There have been judicial and Congressional challenges to certain aspects of the Affordable Care Act. As a result, there have been delays in the implementation of, and action taken to repeal or replace, certain aspects of the Affordable Care Act. While the extent to which any such changes may affect our business is uncertain, steps have been taken to repeal and replace certain aspects of the Affordable Care Act.

There have been, and likely will continue to be, legislative and regulatory proposals at the foreign, federal and state levels directed at broadening the availability of healthcare and containing or lowering the cost of healthcare. We cannot predict the initiatives that may be adopted in the future. The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare and/or impose price controls may adversely affect:

- the demand for our current and potential product candidates, if we obtain regulatory approval;
- our ability to set a price that we believe is fair for our products;

- our ability to generate revenue and achieve or maintain profitability;
- the level of taxes that we are required to pay; and
- the availability of capital.

We and our contract manufacturers are subject to significant regulation with respect to manufacturing our products. The manufacturing facilities on which we rely may not continue to meet regulatory requirements and have limited capacity.

We are currently utilizing contract manufacturers for the production of the active pharmaceutical ingredients and the formulation of drug product for our trials of Oncoprex. However, we do not have agreements for supplies of Oncoprex or any of our other potential product candidates. Each supplier may require licenses to manufacture such components if such processes are not owned by the supplier or in the public domain and we may be unable to transfer or sublicense the intellectual property rights we may have or later obtain with respect to such activities.

All entities involved in the preparation of therapeutics for clinical trials or commercial sale, including our existing contract manufacturers for Oncoprex, are subject to extensive regulation. Components of a finished therapeutic product approved for commercial sale or used in late-stage clinical trials must be manufactured in accordance with cGMP. These regulations govern manufacturing processes and procedures (including record keeping) and the implementation and operation of quality systems to control and assure the quality of investigational products and products approved for sale. Poor control of production processes can lead to the introduction of contaminants, or to inadvertent changes in the properties or stability of our current and potential product candidates that may not be detectable in final product testing. We or our contract manufacturers must supply all necessary documentation in support of a BLA on a timely basis and must adhere to the FDA's good laboratory practices, or GLP, and cGMP regulations enforced by the FDA through its facilities inspection program. Our facilities and quality systems and the facilities and quality systems of some or all of our third-party contractors must pass a pre-approval inspection for compliance with the applicable regulations as a condition of regulatory approval of our current and potential product candidates or any of our other potential products. In addition, the regulatory authorities may, at any time, audit or inspect a manufacturing facility involved with the preparation of our current and potential product candidates or our other potential products or the associated quality systems for compliance with the regulations applicable to the activities being conducted. If these facilities do not pass a pre-approval plant inspection, FDA approval of the products may not be granted.

The regulatory authorities also may, at any time following approval of a product for sale, audit our manufacturing facilities or those of our third-party contractors. If any such inspection or audit identifies a failure to comply with applicable regulations or if a violation of our product specifications or applicable regulations occurs independent of such an inspection or audit, we or the relevant regulatory authority may require remedial measures that may be costly and/or time-consuming for us or a third party to implement and that may include the temporary or permanent suspension of a clinical trial or commercial sales or the temporary or permanent closure of a facility. Any such remedial measures imposed upon us or third parties with whom we contract could materially harm our business.

If we or any of our third-party manufacturers fail to maintain regulatory compliance, the FDA can impose regulatory sanctions including, among other things, refusal to approve a pending application for a new drug product or biologic product or revocation of a pre-existing approval. As a result, our business, financial condition and results of operations may be materially harmed.

Additionally, if supply from one approved manufacturer is interrupted, there could be a significant disruption in commercial supply. An alternative manufacturer would need to be qualified through a BLA supplement which could result in further delay. The regulatory agencies may also require additional studies if a new manufacturer is relied upon for commercial production. Switching manufacturers may involve substantial costs and is likely to result in a delay in our desired clinical and commercial timelines.

These factors could cause the delay of clinical trials, regulatory submissions, required approvals or commercialization of our current and potential product candidates, cause us to incur higher costs and prevent us from commercializing our products successfully. Furthermore, if our suppliers fail to meet contractual requirements, and we are unable to secure one or more replacement suppliers capable of production at a substantially equivalent cost, our clinical trials may be delayed or we could lose potential revenue.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We may become subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of hazardous materials and certain waste products, including numerous environmental, health and safety laws and regulations, such as those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and

wastes. Our operations may in the future involve the use of hazardous materials, including chemicals and biological materials. Our operations may also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties. In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

Risks Related to Our Dependence on Third Parties

We may not be successful in establishing and maintaining development and commercialization collaborations, which could adversely affect our ability to develop certain of our current and potential product candidates and our financial condition and operating results.

Because developing pharmaceutical products, conducting clinical trials, obtaining regulatory approval, establishing manufacturing capabilities and marketing approved products are expensive, we may enter into collaborations with companies that have the required expertise. Additionally, if any of our current and potential product candidates receives marketing approval, we may enter into sales and marketing arrangements with third parties. If we are unable to enter into arrangements on acceptable terms, if at all, we may be unable to effectively market and sell our products in our target markets. We expect to face competition in seeking appropriate collaborators. Moreover, collaboration arrangements are complex and time consuming to negotiate, document and implement and they may require substantial resources to maintain. We may not be successful in our efforts to establish and implement collaborations or other alternative arrangements for the development of our current and potential product candidates.

When we collaborate with a third party for development and commercialization of a product candidate, we can expect to relinquish some or all of the control over the future success of that product candidate to the third party.

One or more of our collaboration partners may not devote sufficient resources to the commercialization of our current and potential product candidates or may otherwise fail in their commercialization. The terms of any collaboration or other arrangement that we establish may contain provisions that are not favorable to us. In addition, any collaboration that we enter into may be unsuccessful in the development and commercialization of our current and potential product candidates. In some cases, we may be responsible for continuing preclinical and initial clinical development of a product candidate or research program under a collaboration arrangement, and the payment we receive from our collaboration partner may be insufficient to cover the cost of this development. If we are unable to reach agreements with suitable collaborators for our current and potential product candidates, we would face increased costs, we may be forced to limit the number of our current and potential product candidates we can commercially develop or the territories in which we commercialize them. As a result, we might fail to commercialize products or programs for which a suitable collaborator cannot be found. If we fail to achieve successful collaborations, our operating results and financial condition could be materially and adversely affected.

We rely, and expect to continue to rely, on third parties to conduct, supervise and monitor our clinical trials, and if these third parties perform in an unsatisfactory manner, it may harm our business.

We rely on CROs and clinical trial sites to ensure our clinical trials are conducted properly and on time. While we have agreements governing their activities, we may have limited influence over their actual performance. We control only certain aspects of our CROs' activities. Nevertheless, we are responsible for ensuring that each of our clinical trials is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards, and our reliance on the CROs does not relieve us of our regulatory responsibilities.

We and our CROs are required to comply with the GCPs for conducting, recording and reporting the results of clinical trials to assure that the data and reported results are credible and accurate and that the rights, integrity and confidentiality of clinical trial participants are protected. The FDA enforces these GCPs through periodic inspections of study sponsors, principal investigators and clinical trial sites. If we or our CROs fail to comply with applicable GCPs, the clinical data generated in our future clinical trials may be deemed unreliable, and the FDA may require us to perform additional clinical trials before approving any marketing applications. Upon inspection, the FDA may determine that our clinical trials did not comply with GCPs. In addition, our ongoing and future clinical trials will require a sufficient number of test subjects to evaluate the safety and effectiveness of our current and potential product candidates. Accordingly, if our CROs fail to comply with these regulations or fail to recruit a sufficient number of patients, we may be required to repeat such clinical trials, which would delay the regulatory approval process.

Our CROs are not our employees, and we are not able to directly monitor whether or not they devote sufficient time and resources to our clinical and nonclinical programs. These CROs may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical trials or other drug development activities that could harm our competitive position. If our CROs do not successfully carry out their contractual duties or obligations, fail to meet expected deadlines, or if the quality or accuracy of the clinical data they obtain is compromised due to their failure to adhere to our clinical protocols or regulatory requirements, or for any other reasons, our clinical trials may be extended, delayed or terminated, and we may not be able to obtain regulatory approval for or successfully commercialize our current and potential product candidates. As a result, our financial results and the commercial prospects for our current and potential product candidates would be harmed, our costs could increase and our ability to generate revenues could be delayed.

We rely, and expect to continue to rely, on third parties to distribute, manufacture and perform release testing for our current and potential product candidates and other key materials and if such third parties do not carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approvals for our current and potential product candidates.

We intend to continue to rely on third-party contract manufacturing organizations, or CMOs, to produce our current and potential product candidates and other key materials and on third-party contract testing organizations, or CTOs, for the establishment and performance of validated product release assays, but we have not entered into binding agreements with any such CMOs or CTOs to support commercialization. Additionally, any CMO may not have experience producing our current and potential product candidates at commercial levels and may not achieve the necessary regulatory approvals or produce our products at the quality, quantities, locations and timing needed to support commercialization. We may change our manufacturing process, and there can be no guarantee that the regulatory authorities will approve any new process in a timely manner or ever. Also, as a consequence of the manufacturing change, there may be a requirement to do more preclinical safety or efficacy studies, develop new manufacturing and release assays and/or repeat all or part of the ascending dose safety study in animals or humans. Regulatory requirements ultimately imposed could adversely affect our ability to test, manufacture or market products.

Although we intend to rely on third-party manufacturers for commercialization, we currently utilize a sole source manufacturer to support our clinical trials. We may be unable to negotiate binding agreements with this manufacturer or additional manufacturers to support our commercialization activities at commercially reasonable terms.

No manufacturer we know of currently has the experience or ability to produce our current and potential product candidates at reasonable commercial levels or under full commercial requirements. We may encounter technical or scientific issues related to manufacturing or development that we may be unable to resolve in a timely manner or with available funds. Further, we have not completed the characterization and validation activities necessary for commercial and regulatory approvals. If our manufacturing and testing partners do not obtain such regulatory approvals, our commercialization efforts may be harmed.

Even if we timely develop a manufacturing process for Oncoprex and successfully transfer it to third-party manufacturers, if such third-party manufacturers are unable to produce our current and potential product candidates in the necessary quantities, or in compliance with current Good Manufacturing Practices, or cGMP, or in compliance with pertinent regulatory requirements, and within our planned time frame and cost parameters, the development and sales of our products, if approved, may be materially harmed. The facilities used by our contract manufacturers to manufacture our current and potential product candidates must be approved by the FDA pursuant to inspections that will be conducted after we submit our BLA to the FDA. We do not control the manufacturing process of, and are completely dependent on, our contract manufacturing partners for compliance with cGMPs for the manufacture of our current and potential product candidates. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or others, they will not be able to secure and/or maintain regulatory approval for their manufacturing facilities. In addition, we have no control over the ability of our contract manufacturers to maintain adequate quality control, quality assurance and qualified personnel. If the FDA or a comparable foreign regulatory authority does not approve these facilities for the manufacture of our current and potential product candidates or if it withdraws any such approval in the future, we may need to find alternative manufacturing facilities, which would significantly affect our ability to develop, obtain regulatory approval for or market our current and potential product candidates, if approved. In addition, any failure to achieve and maintain compliance with these laws, regulations and standards could subject us to the risk that we may have to suspend the manufacturing of our current and potential product candidates or that obtained approvals could be revoked, which would adversely affect our business and reputation.

In addition, any significant disruption in our supplier relationships could harm our business. We source key materials, devices and equipment from third parties, either directly through agreements with suppliers or indirectly through our manufacturers who have agreements with suppliers. There is a small number of suppliers for certain key materials and components that are used to manufacture our current and potential product candidates. Such suppliers may not sell these key materials to our manufacturers at the times or quantities we need them or on commercially reasonable terms. We may not have any control over the process or timing of the acquisition of these key materials by our manufacturers.

We also expect to rely on other third parties to store and distribute our products for our clinical trials. Any performance failure on the part of our distributors could delay clinical development or marketing approval of our current and potential product candidates or commercialization of our products, if approved, producing additional losses and depriving us of potential product revenue.

We have completed and may in the future complete related party transactions that were not and may not be conducted on an arm's length basis.

Our leading drug candidate, Oncoprex, is based upon patents and related technology covered by a patent and technology license agreement between The University of Texas MD Anderson Cancer Center, or MD Anderson, and Introgen Therapeutics, Inc. (such technology license agreement is referred to as the "MD Anderson License Agreement"), under which we have rights to patents covering use of various genes, including the TUSC2 gene, for treatment of cancer, as well as know-how and related intellectual property. In 2007, the MD Anderson License Agreement was sublicensed by Introgen Therapeutics, Inc. to Introgen Research Institute, Inc., a Texas corporation (IRI) and in 2009 this sublicense was assigned by IRI to us, and we granted back to IRI a nonexclusive, royalty-free license to use and practice the licensed technology for non-commercial research purposes. As consideration for this assignment, we agreed to assume all of IRI's obligations to MD Anderson under the MD Anderson License Agreement, including ongoing patent related expenses and royalty obligations. IRI also agreed in 2011 to provide additional technology licensing opportunities and services to us in return for monthly payments and our obligation to pay to IRI a royalty of one percent (1%) on sales of products licensed to us under the MD Anderson License Agreement. We also granted a non-exclusive, royalty-free sublicense to IRI in 2011 for non-commercial research purposes. IRI's obligations to provide additional technology licensing opportunities and services to us, and our obligation to make monthly payments to IRI, were terminated in 2012; however, our obligation to pay the one percent (1%) royalty to IRI upon sales of products licensed to us under the MD Anderson License Agreement is ongoing. This royalty obligation continues for 21 years after the later of the termination of the MD Anderson License Agreement and the termination of the sublicense assigned by IRI to us. IRI is controlled by Rodney Varner and his immediate family members. Mr. Varner is currently Chairman of our board of directors, having joined our board of directors on August 15, 2012, and has been our President and Chief Executive Officer since August 29, 2012; accordingly, in 2009 and 2011, when the above referenced agreements between IRI and Genprex were entered into, Mr. Varner was neither a member of our board of directors nor an executive officer of Genprex. When the 2011 agreement was entered into, Mr. Varner was deemed to be an "affiliate of the Company due to his beneficial ownership of approximately 39% of our issued and outstanding shares. Although we believe that these transactions were conducted on an arm's length basis, it is possible that the terms were less favorable to us than they might have been in a transaction with an unrelated party. We have adopted a written related-person transactions policy that sets forth our policies and procedures regarding the identification, review, consideration and oversight of related-person transactions.

Risks Related to Our Intellectual Property

If we fail to obtain or protect our intellectual property, our business will be impaired.

If we are unable to obtain or protect intellectual property rights related to our current and potential product candidates, we may not be able to compete effectively in our markets. Third party claims of intellectual property infringement may prevent or delay our development and commercialization efforts. We may not be successful in obtaining or maintaining necessary rights to product components and processes for our development pipeline through acquisitions and end licenses.

If we fail to comply with our obligations in the agreements under which we license intellectual property rights from third parties or otherwise experience disruptions to our business relationships with our licensors, we could lose license rights that are important to our business. We may be involved in lawsuits to protect or enforce our patents or the patents or our licensors, which could be expensive, time-consuming, and/or unsuccessful.

Obtaining and maintaining patent protection depends upon compliance with various procedural, document submission, fee payment, and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for noncompliance with these requirements. Issued patents covering our current and potential product candidates could be found invalid or unenforceable if challenged in court, or could expire before we obtain product approval. The scope of our issued patents could be found to be narrower and provide less protection than we anticipate.

If we fail to comply with our obligations in the agreements under which we license intellectual property rights from MD Anderson, or otherwise experience disruptions to our business relationships with MD Anderson or other future licensors, we could lose license rights that are important to our business.

Under our license agreement with MD Anderson, we hold a worldwide, exclusive license to, among other things, manufacture and market products utilizing certain inventions that are critical to our business. We expect to enter into additional license agreements in the future. Our existing license agreement imposes various diligence, royalty and other obligations on us, and we expect that future

license agreements will impose various diligence, milestone payment, royalty and other obligations on us. If we fail to comply with our obligations under these agreements, or we are subject to a bankruptcy, the licensor may have the right to terminate the license, in which event we would not be able to market products covered by the license. See "Business—License and Collaboration Agreements" for a description of our license agreements with MD Anderson, which includes a description of the termination provisions of these agreements.

We may need to obtain licenses from third parties to advance our research or allow commercialization of our current and potential product candidates. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. In that event, we may be required to expend significant time and resources to develop or license replacement technology. If we are unable to do so, we may be unable to develop or commercialize the affected product candidates, which could harm our business significantly. We cannot provide any assurances that third-party patents do not exist which might be enforced against our current product candidates or future products, resulting in either an injunction prohibiting our sales, or, with respect to our sales, an obligation on our part to pay royalties and/or other forms of compensation to third parties.

In certain cases, patent prosecution of our licensed technology may be controlled solely by the licensor. If our licensors fail to obtain and maintain patent or other protection for the proprietary intellectual property we license from them, we could lose our rights to the intellectual property or our exclusivity with respect to those rights, and our competitors could market competing products using the intellectual property. In certain cases, we control the prosecution of patents resulting from licensed technology. In the event we breach any of our obligations related to such prosecution, we may incur significant liability to our licensing partners. Licensing of intellectual property is of critical importance to our business and involves complex legal, business and scientific issues and is complicated by the rapid pace of scientific discovery in our industry. Disputes may arise regarding intellectual property subject to a licensing agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- the extent to which our technology and processes infringe intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights under our collaborative development relationships;
- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners; and
- the priority of invention of patented technology.

If disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates.

The intellectual property rights we have licensed from MD Anderson are subject to the rights of the U.S. government.

The rights we have obtained pursuant to our license agreement with MD Anderson are made subject to the rights of the U.S. government to the extent that the technology covered by the licensed intellectual property was developed under a funding agreement between MD Anderson and the U.S. government. Additionally, to the extent there is any conflict between our license agreement with MD Anderson and applicable laws or regulations, applicable laws and regulations will prevail. Similarly, to the extent there is any conflict between our license agreement with MD Anderson and MD Anderson's funding agreement with the US government, the terms of the funding agreement will prevail. Some, and possibly all, of our licensed intellectual property rights from MD Anderson have been developed in the course of research funded by the U.S. government. As a result, the U.S. government may have certain rights to intellectual property embodied in our current or future products pursuant to the Bayh-Dole Act of 1980. Government rights in certain inventions developed under a government-funded program include a non-exclusive, non-transferable, irrevocable worldwide license to use inventions for any governmental purpose. In addition, the U.S. government has the right to require us, or an assignee or exclusive licensee to such inventions, to grant licenses to any of these inventions to a third party if the U.S. government determines that adequate steps have not been taken to commercialize the invention, that government action is necessary to meet public health or safety needs, that government action is necessary to meet requirements for public use under federal regulations, or that the right to use or sell such inventions is exclusively licensed to an entity within the U.S. and substantially manufactured outside the U.S. without the U.S. government's prior approval. Additionally, we may be restricted from granting exclusive licenses for the right to use or sell our inventions created pursuant to such agreements unless the licensee agrees to additional restrictions (e.g., manufacturing substantially all of the invention in the U.S.). The U.S. government also has the right to take title to these inventions if we fail to disclose the invention to the government and fail to file an application to register the intellectual property within specified time limits. In addition, the U.S. government may acquire title in any country in which a patent application is not filed within specified time limits.

Additionally, certain inventions are subject to transfer restrictions during the term of these agreements and for a period thereafter, including sales of products or components, transfers to foreign subsidiaries for the purpose of the relevant agreements, and transfers to certain foreign third parties. If any of our intellectual property becomes subject to any of the rights or remedies available to the U.S. government or third parties pursuant to the Bayh-Dole Act of 1980, this could impair the value of our intellectual property and could adversely affect our business. The U.S. government has not exercised any of these rights or provided us with any notice of its intent to exercise any of these rights with respect to any of the intellectual property licensed to us by MD Anderson. We are not aware of any instance in which the U.S. government has ever exercised any such rights with respect to any technologies or other intellectual property developed under funding agreements with the U.S. government.

If we are unable to protect our intellectual property rights or if our intellectual property rights are inadequate for our technology and product candidates, our competitive position could be harmed.

Our commercial success will depend in part on our ability and the ability of our licensors to obtain and maintain patent and other intellectual property protection in the United States and other countries with respect to our proprietary technology and products. We rely on trade secret, patent, copyright and trademark laws, and confidentiality, licensing and other agreements with employees and third parties, all of which offer only limited protection. We seek to protect our proprietary position by filing and prosecuting patent applications in the United States and abroad related to our novel technologies and products that are important to our business.

The patent positions of biotechnology and pharmaceutical companies generally are highly uncertain, involve complex legal and factual questions and have in recent years been the subject of much litigation. As a result, the issuance, scope, validity, enforceability and commercial value of our patents, including those patent rights licensed to us by third parties, are highly uncertain. The steps we or our licensors have taken to protect our proprietary rights may not be adequate to preclude misappropriation of our proprietary information or infringement of our intellectual property rights, both inside and outside of the United States. Further, the examination process may require us or our licensors to narrow the claims for our pending patent applications, which may limit the scope of patent protection that may be obtained if these applications issue. The rights already granted under any of our currently issued patents or those licensed to us and those that may be granted under future issued patents may not provide us with the proprietary protection or competitive advantages we are seeking. If we or our licensors are unable to obtain and maintain patent protection for our technology and products, or if the scope of the patent protection obtained is not sufficient, our competitors could develop and commercialize technology and products similar or superior to ours, and our ability to successfully commercialize our technology and products may be adversely affected. It is also possible that we or our licensors will fail to identify patentable aspects of inventions made in the course of our development and commercialization activities before it is too late to obtain patent protection on them. It is also possible that as research and development progresses, the direction of our intellectual property strategy and patent portfolio will change, resulting in strategic business decisions to allow certain patents or patent applications to be abandoned or lapse.

With respect to patent rights, we do not know whether any of the pending patent applications relating to any of our current and potential product candidates will result in the issuance of patents that effectively protect our technology or products, or if any of our licensors' issued patents will effectively prevent others from commercializing competitive technologies and products. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing or in some cases not at all, until they are issued as a patent. Therefore, we cannot be certain that we or our licensors were the first to make the inventions claimed in our owned or licensed patents or pending patent applications, or that we or our licensors were the first to file for patent protection of such inventions.

Our pending applications cannot be enforced against third parties practicing the technology claimed in such applications unless and until a patent issues from such applications. Because the issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, issued patents that we have licensed from third parties may be challenged in the courts or patent offices in the United States and abroad. Such challenges may result in the loss of patent protection, the narrowing of claims in such patents or the invalidity or unenforceability of such patents, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection for our technology and products. Protecting against the unauthorized use of our or our licensor's patented technology, trademarks and other intellectual property rights is expensive, difficult and may in some cases not be possible. In some cases, it may be difficult or impossible to detect third-party infringement or misappropriation of our intellectual property rights, even in relation to issued patent claims, and proving any such infringement may be even more difficult.

Third-party claims of intellectual property infringement may prevent or delay our development and commercialization efforts.

Our commercial success depends in part on our avoiding infringement of the patents and proprietary rights of third parties. There is a substantial amount of litigation, both within and outside the United States, involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interferences, oppositions and *inter partes* reexamination proceedings before the US Patent and Trademark Office, or US PTO, and corresponding foreign patent offices.

Numerous US and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are pursuing development candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our current and potential product candidates may be subject to claims of infringement of the patent rights of third parties.

Third parties may in the future assert that we are employing their proprietary technology without authorization. There may be third-party patents or patent applications with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our current and potential product candidates. Because patent applications can take many years to issue, there may be currently pending patent applications which may later result in issued patents that our current and potential product candidates may infringe. In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents. If any third-party patents were held by a court of competent jurisdiction to cover the manufacturing process of any of our current and potential product candidates, or any final product itself, the holders of any such patents may be able to block our ability to commercialize such product candidate unless we obtained a license under the applicable patents, or until such patents expire.

Similarly, if any third-party patents were held by a court of competent jurisdiction to cover aspects of our formulations, processes for manufacture or methods of use, including combination therapy, the holders of any such patents may be able to block our ability to develop and commercialize the applicable product candidate unless we obtained a license or until such patent expires. In either case, such a license may not be available on commercially reasonable terms or at all.

Parties making claims against us may obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize one or more of our current and potential product candidates. Defense of these claims, regardless of their merit, may involve substantial litigation expense and would be a substantial diversion of employee resources from our business. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, pay royalties, redesign our infringing products or obtain one or more licenses from third parties, which may be impossible or require substantial time and monetary expenditure.

We may not be successful in obtaining or maintaining necessary rights to product components and processes for our development pipeline through acquisitions and in-licenses.

Presently we believe that we have rights to the intellectual property, through licenses from third parties and under patents that we own, to develop our current and potential product candidates. Because our programs may involve additional product candidates that may require the use of proprietary rights held by third parties, the growth of our business may depend in part on our ability to acquire, in-license or use these proprietary rights. In addition, our current and potential product candidates may require specific formulations to work effectively and efficiently and these rights may be held by others. We may be unable to acquire or in-license any compositions, methods of use, processes or other third-party intellectual property rights from third parties that we identify. The licensing and acquisition of third-party intellectual property rights is a competitive area, and a number of more established companies are also pursuing strategies to license or acquire third-party intellectual property rights that we may consider attractive. These established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities.

In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment. If we are unable to successfully obtain rights to required third-party intellectual property rights, our business, financial condition and prospects for growth could suffer.

We may incur substantial costs as a result of litigation or other proceedings relating to patent and other intellectual property rights.

We may from time to time seek to enforce our intellectual property rights against infringers when we determine that a successful outcome is probable and may lead to an increase in the value of the intellectual property. If we choose to enforce our patent rights against a party, then that individual or company has the right to ask the court to rule that such patents are invalid or should not be enforced. Additionally, the validity of our patents and the patents we have licensed may be challenged if a petition for post grant proceedings such as *inter partes* review and post grant review is filed within the statutorily applicable time with the US PTO. These lawsuits and proceedings are expensive and would consume time and resources and divert the attention of managerial and scientific personnel even if we were successful in stopping the infringement of such patents. In addition, there is a risk that the court will decide that such patents are not valid and that we do not have the right to stop the other party from using the inventions. There is also the risk that, even if the validity of such patents is upheld, the court will refuse to stop the other party on the ground that such other party's activities do not infringe our intellectual property rights. In addition, in recent years the U.S. Supreme Court modified some tests used by the US PTO in granting patents over the past 20 years, which may decrease the likelihood that we will be able to obtain patents and increase the likelihood of a challenge of any patents we obtain or license.

If we are not able to adequately prevent disclosure of trade secrets and other proprietary information, the value of our technology and products could be significantly diminished.

We rely on trade secrets to protect our proprietary technologies, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. We rely in part on confidentiality agreements with our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to protect our trade secrets and other proprietary information. These agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, others may independently discover our trade secrets and proprietary information. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

Our reliance on third parties may require us to share our trade secrets, which increases the possibility that a competitor will discover them or that our trade secrets will be misappropriated or disclosed.

Because we rely on third parties to manufacture our current and potential product candidates, and because we collaborate with various organizations and academic institutions on the advancement of our current and potential product candidates, we must, at times, share trade secrets with them. We seek to protect our proprietary technology in part by entering into confidentiality agreements and, if applicable, material transfer agreements, collaborative research agreements, consulting agreements or other similar agreements with our manufacturers, collaborators, advisors, employees and consultants prior to beginning research or disclosing proprietary information. These agreements typically limit the rights of the third parties to use or disclose our confidential information, such as trade secrets. Despite the contractual provisions employed when working with third parties, the need to share trade secrets and other confidential information increases the risk that such trade secrets become known by our competitors, are inadvertently incorporated into the technology of others, are used inappropriately to create new inventions or are disclosed or used in violation of these agreements. Given that our proprietary position is based, in part, on our know-how and trade secrets, a competitor's discovery of our trade secrets or other unauthorized use or disclosure would impair our competitive position and may have a material adverse effect on our business.

In addition, these agreements typically restrict the ability of our collaborators, advisors, employees and consultants to publish data potentially relating to our trade secrets. Our academic collaborators typically have rights to publish data, provided that we are notified in advance and may delay publication for a specified time in order to secure our intellectual property rights arising from the collaboration. In other cases, publication rights are controlled exclusively by us, although in some cases we may share these rights with other parties. We may also conduct joint research and development programs that may require us to share trade secrets under the terms of research and development partnerships or similar agreements. Despite our efforts to protect our trade secrets, our competitors may discover our trade secrets through breach of these agreements, independent development or publication of information including our trade secrets in cases where we do not have proprietary or otherwise protected rights at the time of publication. A competitor's discovery of our trade secrets may impair our competitive position and have an adverse impact on our business.

We may be involved in lawsuits to protect or enforce our patents or the patents of our licensors, which could be expensive, time-consuming and unsuccessful.

Competitors may infringe our patents or the patents of our licensors. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. In addition, in an infringement proceeding, a court may decide that a patent of ours or our licensors is not valid, is unenforceable and/or is not infringed, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of our patents at risk of being invalidated or interpreted narrowly and could put our patent applications at risk of not issuing.

Interference proceedings provoked by third parties or brought by us may be necessary to determine the priority of inventions with respect to our patents or patent applications or those of our licensors. An unfavorable outcome could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms. Our defense of litigation or interference proceedings may fail and, even if successful, may result in substantial costs and distract our management and other employees. We may not be able to prevent, alone or with our licensors, misappropriation of our intellectual property rights, particularly in countries where the laws may not protect those rights as fully as in the United States.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of our common stock.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications will be due to be paid to the US PTO and various governmental patent agencies outside of the United States in several stages over the lifetime of the patents and/or applications. We employ an outside firm and rely on our outside counsel to pay these fees due to non-US patent agencies. The US PTO and various non-US governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. We employ reputable law firms and other professionals to help us comply, and in many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. However, there are situations in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, our competitors might be able to enter the market and this circumstance would have a material adverse effect on our business.

Issued patents covering our current and potential product candidates could be found invalid or unenforceable if challenged in court.

If we, MD Anderson or one of our future licensing partners initiated legal proceedings against a third party to enforce a patent covering one of our current and potential product candidates, the defendant could counterclaim that the patent covering our product candidate is invalid and/or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the US PTO, or made a misleading statement, during prosecution. Third parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re-examination, post grant review and equivalent proceedings in foreign jurisdictions (e.g., opposition proceedings). Such proceedings could result in revocation or amendment to our patents in such a way that they no longer cover our current and potential product candidates. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our current and potential product candidates. Such a loss of patent protection would have a material adverse impact on our business.

We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties or that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.

We may in the future employ individuals who were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees, consultants and independent contractors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information, of any of our employee's former employer or other third parties. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel, which could adversely impact our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

We may be subject to claims challenging the inventorship or ownership of our patents and other intellectual property.

We may be subject to claims that former employees, collaborators or other third parties have an ownership interest in our patents or other intellectual property. We may have potential ownership disputes arising, for example, from conflicting obligations of consultants, collaborators or others who are involved in developing our current and potential product candidates. Litigation may be necessary to defend against these and other claims challenging inventorship or ownership. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

Changes in U.S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our products.

The United States has enacted and is currently implementing wide-ranging patent reform legislation. Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U.S. Congress, the federal courts and the U.S. PTO, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future.

We have not yet registered the trademark for Oncoprex, and failure to secure such registration could adversely affect our business.

We have applied for, but have not yet received approval of a registered trademark for Oncoprex. During trademark registration proceedings, we may receive rejections. Although we would be given an opportunity to respond to those rejections, we may be unable to overcome such rejections. In addition, in the US PTO and in comparable agencies in many foreign jurisdictions, third parties are given an opportunity to oppose pending trademark applications and to seek to cancel registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, and our trademarks may not survive such proceedings. Moreover, any name we propose to use with our current and potential product candidates in the United States must be approved by the FDA, regardless of whether we have registered it, or applied to register it, as a trademark. The FDA typically conducts a review of proposed product names, including an evaluation of potential for confusion with other product names. If the FDA objects to any of our proposed proprietary product names, we may be required to expend significant additional resources in an effort to identify a suitable substitute name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA.

We may not be able to protect our intellectual property rights throughout the world.

Filing, prosecuting and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and further, may export otherwise infringing products to territories where we have patent protection, but enforcement is not as strong as that in the United States. These products may compete with our products and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets and other intellectual property protection, particularly those relating to biotechnology products, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Risks Related to Employee Matters and Managing Growth

We have no sales, marketing or distribution experience and we will have to invest significant resources to develop those capabilities or enter into acceptable third-party sales and marketing arrangements.

We have no sales, marketing or distribution experience. To develop sales, distribution and marketing capabilities, we will have to invest significant amounts of financial and management resources, some of which will need to be committed prior to any confirmation that Oncoprex or any of our other potential product candidates will be approved by the FDA. For product candidates for which we decide to perform sales, marketing and distribution functions ourselves or through third parties, we could face a number of additional risks, including that we or our third-party sales collaborators may not be able to build and maintain an effective marketing or sales force, and we may experience difficulty in managing the growth of our organization. If we use third parties to market and sell our products, we may have limited or no control over their sales, marketing and distribution activities on which our future revenues may depend.

We will need to expand our operations and increase the size of our company, and we may experience difficulties in managing growth.

As of April 6, 2018, we had four full-time employees and one part-time employee. As we advance our current and potential product candidates through preclinical studies and clinical trials, we will need to increase our product development, scientific and administrative headcount to manage these programs. In addition, to meet our obligations as a public company, we may need to increase our general and administrative capabilities. Our management, personnel and systems currently in place may not be adequate to support this future growth. If we are unable to successfully manage this growth and increased complexity of operations, our business may be adversely affected.

We may not be able to manage our business effectively if we are unable to attract and retain key personnel and consultants.

We may not be able to attract or retain qualified management, finance, scientific and clinical personnel and consultants due to the intense competition for qualified personnel and consultants among biotechnology, pharmaceutical and other businesses. If we are not able to attract and retain necessary personnel and consultants to accomplish our business objectives, we may experience constraints that will significantly impede the achievement of our development objectives, our ability to raise additional capital and our ability to implement our business strategy.

We are highly dependent on the development, regulatory, commercialization and business development expertise of our management team, key employees and consultants. Any of our executive officers or key employees or consultants may terminate their employment at any time. If we lose one or more of our executive officers or key employees or consultants, our ability to implement our business strategy successfully could be seriously harmed. Replacing executive officers, key employees and consultants may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to develop, gain regulatory approval of and commercialize products successfully. Competition to hire and retain employees and consultants from this limited pool is intense, and we may be unable to hire, train, retain or motivate these additional key personnel and consultants. Our failure to retain key personnel or consultants could materially harm our business.

In addition, we have scientific and clinical advisors and consultants who assist us in formulating our research, development and clinical strategies. These advisors are not our employees and may have commitments to, or consulting or advisory contracts with, other entities that may limit their availability to us and typically they will not enter into non-compete agreements with us. If a conflict of interest arises between their work for us and their work for another entity, we may lose their services. In addition, our advisors may have arrangements with other companies to assist those companies in developing products or technologies that may compete with ours.

We may use our financial and human resources to pursue a particular research program or product candidate and fail to capitalize on programs or product candidates that may be more profitable or for which there is a greater likelihood of success.

Because we have limited resources, we may forego or delay pursuit of opportunities with certain programs or product candidates or for indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs for product candidates may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through strategic collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate, or we may allocate internal resources to a product candidate in a therapeutic area in which it would have been more advantageous to enter into a partnering arrangement.

If we engage in future acquisitions or strategic partnerships, this may increase our capital requirements, dilute our stockholders, cause us to incur debt or assume contingent liabilities, and subject us to other risks.

We may evaluate and enter into various acquisitions and strategic partnerships, including licensing or acquiring complementary products, intellectual property rights, technologies, or businesses. Any potential acquisition or strategic partnership may entail numerous risks, including:

- increased operating expenses and cash requirements;
- the assumption of additional indebtedness or contingent liabilities;
- the issuance of our equity securities;
- assimilation of operations, intellectual property and products of an acquired company, including difficulties associated with integrating new personnel;

- the diversion of our management's attention from our existing product programs and initiatives in pursuing such a strategic merger or acquisition;
- retention of key employees, the loss of key personnel, and uncertainties in our ability to maintain key business relationships;
- risks and uncertainties associated with the other party to such a transaction, including the prospects of that party and their existing products or product candidates and marketing approvals; and
- our inability to generate revenue from acquired technology and/or products sufficient to meet our objectives in undertaking the acquisition or even to offset the associated acquisition and maintenance costs.

In addition, if we undertake acquisitions, we may issue dilutive securities, assume or incur debt obligations, incur large one-time expenses and acquire intangible assets that could result in significant future amortization expense. Moreover, we may not be able to locate suitable acquisition opportunities and this inability could impair our ability to grow or obtain access to technology or products that may be important to the development of our business.

Risks Related to Owning Our Common Stock

The market price of our common stock may be highly volatile, and you may lose all or part of your investment.

The market price of our common stock is likely to be volatile. Our stock price could be subject to wide fluctuations in response to a variety of factors, including the following:

- adverse results or delays in preclinical or clinical trials;
- reports of adverse events in other gene therapy products or clinical trials of such products;
- inability to obtain additional funding;
- any delay in filing an IND or BLA for any of our current and potential product candidates and any adverse development or perceived adverse development with respect to the FDA's review of that IND or BLA;
- failure to develop successfully and commercialize our current and potential product candidates;
- failure to maintain our existing strategic collaboration or enter into new collaborations;
- failure by us or our licensors and strategic collaboration partners to prosecute, maintain or enforce our intellectual property rights;
- changes in laws or regulations applicable to future products;
- inability to obtain adequate product supply for our current and potential product candidates or inability to do so at acceptable prices;
- adverse regulatory decisions;
- introduction of new products, services or technologies by our competitors;
- failure to meet or exceed financial projections we may provide to the public;
- failure to meet or exceed the financial projections of the investment community;
- the perception of the pharmaceutical industry by the public, legislatures, regulators and the investment community;
- announcements of significant acquisitions, strategic partnerships, joint ventures or capital commitments by us, our strategic collaboration partners or our competitors;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- additions or departures of key scientific or management personnel;
- significant lawsuits, including patent or stockholder litigation;
- changes in the market valuations of similar companies;

- sales of our common stock by us or our stockholders in the future; and
- trading volume of our common stock.

In addition, companies trading in the stock market in general, and The Nasdaq Capital Market in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance.

Nasdaq may delist our securities from its exchange, which could limit investors' ability to make transactions in our securities and subject us to additional trading restrictions.

Our common stock is listed on The Nasdaq Capital Market. We cannot assure you that, in the future, our securities will meet the continued listing requirements to be listed on The Nasdaq Capital Market. If The Nasdaq Capital Market delists our common stock, we could face significant material adverse consequences, including:

- a limited availability of market quotations for our securities;
- a determination that our common stock is a "penny stock" which will require brokers trading in our common stock to adhere to more stringent rules and possibly resulting in a reduced level of trading activity in the secondary trading market for our common stock;
- a limited amount of news and analyst coverage for our company; and
- a decreased ability to issue additional securities or obtain additional financing in the future.

Unstable market and economic conditions may have serious adverse consequences on our business, financial condition and stock price.

Global credit and financial markets have experienced extreme volatility and disruptions in past years, including severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates and uncertainty about economic stability. We cannot assure you that further deterioration in credit and financial markets and confidence in economic conditions will not occur. Our general business strategy may be adversely affected by any such economic downturn, volatile business environment or continued unpredictable and unstable market conditions. If the current equity and credit markets deteriorate, or do not improve, it may make any necessary debt or equity financing more difficult, more costly and more dilutive. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on our growth strategy, financial performance and stock price and could require us to delay or abandon clinical development plans. In addition, there is a risk that one or more of our current service providers, manufacturers and other partners may not survive difficult economic times, which could directly affect our ability to attain our operating goals on schedule and on budget.

We have no intention of declaring dividends in the foreseeable future.

The decision to pay cash dividends on our common stock rests with our board of directors and will depend on our earnings, unencumbered cash, capital requirements and financial condition. We do not anticipate declaring any dividends in the foreseeable future, as we intend to use any excess cash to fund our operations. Investors in our common stock should not expect to receive dividend income on their investment, and investors will be dependent on the appreciation of our common stock to earn a return on their investment.

We are an emerging growth company, and we cannot be certain if the reduced reporting requirements applicable to emerging growth companies will make our common stock less attractive to investors.

We are an emerging growth company, as defined in the JOBS Act. For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding nonbinding advisory votes on executive compensation and stockholder approval of any golden parachute payments not previously approved. We could be an emerging growth company for up to five years following the year in which we completed the recently completed initial public offering of our common stock, although circumstances could cause us to lose that status earlier. We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of the completion of the recently completed initial public offering of our common stock, (b) in which we have total annual gross revenue of at least $1 billion or (c) in which we are deemed to be a large accelerated filer, which requires the market value of our common stock that is held by non-affiliates to exceed $700 million as of the prior June 30th, and (2) the date on which we have issued more than $1 billion in nonconvertible debt during the prior three-year period.

Even after we no longer qualify as an emerging growth company, we may still qualify as a "smaller reporting company" which would allow us to take advantage of many of the same exemptions from disclosure requirements including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. As a result, changes in rules of U.S. generally accepted accounting principles or their interpretation, the adoption of new guidance or the application of existing guidance to changes in our business could significantly affect our financial position and results of operations.

We will incur significant increased costs as a result of operating as a public company, and our management will be required to devote substantial time to existing and new compliance initiatives.

As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. We will be subject to the reporting requirements of the Securities Exchange Act of 1934, or the Exchange Act, which will require, among other things, that we file with the Securities and Exchange Commission, or the SEC, annual, quarterly and current reports with respect to our business and financial condition. In addition, the Sarbanes-Oxley Act, as well as rules subsequently adopted by the SEC and The Nasdaq Capital Market to implement provisions of the Sarbanes-Oxley Act, impose significant requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. Further, in July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act, was enacted. There are significant corporate governance and executive compensation related provisions in the Dodd-Frank Act that require the SEC to adopt additional rules and regulations in these areas such as "say on pay" and proxy access. Recent legislation permits emerging growth companies to implement many of these requirements over a longer period and up to five years from the pricing of the recently completed initial public offering of our common stock. We intend to take advantage of this new legislation but cannot guarantee that we will not be required to implement these requirements sooner than budgeted or planned and thereby incur unexpected expenses. Stockholder activism, the current political environment and government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact the manner in which we operate our business in ways we cannot currently anticipate.

We expect the rules and regulations applicable to public companies to substantially increase our legal and financial compliance costs and to make some activities more time-consuming and costly. If these requirements divert the attention of our management and personnel from other business concerns, they could have a material adverse effect on our business, financial condition and results of operations. The increased costs will decrease our net income or increase our net loss, and may require us to reduce costs in other areas of our business or increase the prices of our products or services. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to incur substantial costs to maintain the same or similar coverage. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers.

We may be exposed to risks relating to evaluations of controls required by Sarbanes-Oxley Act of 2002.

Pursuant to Sarbanes-Oxley Act of 2002, our management will be required to report on, and our independent registered public accounting firm may in the future be required to attest to, the effectiveness of our internal control over financial reporting. Although we prepare our financial statements in accordance with accounting principles generally accepted in the United States of America, our internal accounting controls may not meet all standards applicable to companies with publicly traded securities. If we fail to implement any required improvements to our disclosure controls and procedures, we may be obligated to report control deficiencies and our independent registered public accounting firm may not be able to certify the effectiveness of our internal controls over financial reporting. In either case, we could become subject to regulatory sanction or investigation. Further, these outcomes could damage investor confidence in the accuracy and reliability of our financial statements.

Failure to continue improving our accounting systems and controls could impair our ability to comply with the financial reporting and internal controls requirements for publicly traded companies.

As a public company, we operate in a demanding regulatory environment, which requires us to comply with the Sarbanes-Oxley Act of 2002, and the related rules and regulations of the SEC. Company responsibilities required by the Sarbanes-Oxley Act include establishing corporate oversight and adequate internal control over financial reporting and disclosure controls and procedures. Effective internal controls are necessary for us to produce reliable financial reports and are important to help prevent financial fraud.

We may need to retain additional finance capabilities and build our financial infrastructure as a public company. Section 404(a) of the Sarbanes-Oxley Act requires annual management assessments of the effectiveness of our internal control over financial reporting, starting with the second annual report that we would expect to file with the SEC. However, for as long as we remain an "emerging growth company" as defined in the JOBS Act, we have and intend to continue to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies" including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act. We may continue to take advantage of these reporting exemptions until we are no longer an "emerging growth company." If we cannot provide reliable financial reports or prevent fraud, our business and results of operations could be harmed and investors could lose confidence in our reported financial information.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, or the Code, if a corporation undergoes an "ownership change," generally defined as a cumulative change in its equity ownership by "5-percent shareholders" of greater than 50 percentage points (by value) over a three-year period, the corporation's ability to use its pre-change net operating loss carryforwards, or NOLs, and certain other pre-change tax attributes (such as research tax credits) to offset its post-change taxable income and taxes, as applicable, may be limited. We have completed multiple rounds of financing since our inception which may have resulted in an ownership change or could result in an ownership change in the future. We have not completed a Section 382 and 383 analysis regarding any limitations on our NOLs and research and development credit carryforwards and such limitations could be significant. We may also experience ownership changes in the future as a result of subsequent shifts in our stock ownership. As a result, our ability to use our NOLs and research and development credit carryforwards to offset our U.S. federal taxable income and taxes, as applicable, may be subject to limitations, which could potentially result in increased future tax liability to us. In addition, at the state level, similar rules may apply and there may be periods during which the use of NOLs is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed.

Sales of a substantial number of shares of our common stock in the public market could cause our stock price to fall.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market after the lock-up and other legal restrictions on resale lapse, the market price of our common stock could decline. There were 13,035,004 shares of common stock outstanding as of April 6, 2018. Of these shares, 1,180,000 of the 1,280,000 shares sold in our initial public offering are freely tradable, without restriction, in the public market.

The remaining 11,855,004 shares offering will be restricted as a result of securities laws or lock-up agreements. The lock-up agreements pertaining to our initial public offering will expire on September 24, 2018, 180 days from the date of the underwriting agreement entered into in connection with our initial public offering. Network 1 Financial Securities, Inc., the underwriter of our initial public offering, may, however, in its sole discretion, permit our officers, directors and other stockholders who are subject to lock-up agreements to sell shares prior to the expiration of the lock-up agreements. These remaining shares will generally become available for sale in the public market as follows:

- up to 345,086 restricted or control shares are eligible for sale, subject to compliance with applicable securities laws; and
- up to another 11,509,918 restricted shares will be eligible for sale upon the expiration of lock-up agreements, also subject to compliance with applicable securities laws.

In addition, as of April 6, 2018, 7,575,209 shares of common stock that are either subject to outstanding options, reserved for future issuance under our equity incentive plan or subject to outstanding warrants will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements and applicable securities laws. If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the market price of our common stock could decline.

Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our equity incentive plans, could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.

We intend to seek to raise additional funds, and we may finance acquisitions or develop strategic relationships, in each case by issuing equity or convertible debt securities in addition to the shares issued in the recently completed initial public offering of our common stock, which would reduce the percentage ownership of our existing stockholders. Our board of directors has the authority, in some instances without action or vote of the stockholders, to issue our authorized but unissued shares of common or preferred stock. Our amended and restated certificate of incorporation authorizes us to issue up to 200,000,000 shares of voting common stock and 10,000,000 shares of preferred stock. Future issuances of common or preferred stock would reduce your influence over matters on which stockholders vote and would be dilutive to earnings per share. In addition, any newly issued preferred stock could have rights, preferences and privileges senior to those of the common stock. Those rights, preferences and privileges could include, among other things, the establishment of dividends that must be paid prior to declaring or paying dividends or other distributions to holders of our common stock or providing for preferential liquidation rights. These rights, preferences and privileges could negatively affect the rights of holders of our common stock, and the right to convert such preferred stock into shares of our common stock at a rate or price that would have a dilutive effect on the outstanding shares of our common stock.

Initially, the aggregate number of shares of our common stock that may be issued pursuant to stock awards under our 2018 Plan is 6,788,749 shares. Additionally, the number of shares of our common stock reserved for issuance under our 2018 Plan will automatically increase on January 1 of each year, beginning on January 1, 2019 and continuing through and including January 1, 2028, by 5% of the total number of shares of our capital stock outstanding on December 31 of the preceding calendar year, or a lesser number of shares determined by our board of directors. Unless our board of directors elects not to increase the number of shares available for future grant each year, our stockholders may experience additional dilution, which could cause our stock price to fall.

We have granted to Network 1 Financial Securities, Inc. the underwriter of our initial public offering, an over-allotment option, which is exercisable on or before May 12, 2018, 45 days from the date of the underwriting agreement entered into in connection with our initial public offering and which permits the underwriter to purchase up to 192,000 additional shares of our common stock (15% of the shares sold in our initial public offering) from us to cover over-allotments, if any. If the underwriter exercises all or part of this option, the underwriter will purchase shares covered by the option at the price of $5.00 per share, less the underwriting discount.

If securities or industry analysts do not publish research or reports about us, or if they adversely change their recommendations regarding our common stock, then our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us, our industry and our market. If no analyst elects to cover us and publish research or reports about us, the market for our common stock could be severely limited and our stock price could be adversely affected. In addition, if one or more analysts ceases coverage of us or fails to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline. If one or more analysts who elect to cover us issue negative reports or adversely change their recommendations regarding our common stock, our stock price could decline.

The concentration of our common stock ownership by our current management may limit your ability to influence corporate matters.

Our directors and executive officers beneficially own and are able to vote in the aggregate approximately 26.6% of our outstanding common stock. Accordingly, our directors and executive officers, as stockholders, will continue to have the ability to exert significant influence over all corporate activities, including the election or removal of directors and the outcome of tender offers, mergers, proxy contests or other purchases of common stock that could give our stockholders the opportunity to realize a premium over the then-prevailing market price for their shares of common stock. This concentrated control will limit your ability to influence corporate matters and, as a result, we may take actions that purchasers in the recently completed initial public offering of our common stock do not view as beneficial. In addition, such concentrated control could discourage others from initiating changes of control. In such cases, the perception of our prospects in the market may be adversely affected and the market price of our common stock may decline.

Certain provisions in our organizational documents could enable our board of directors to prevent or delay a change of control.

Our organizational documents contain provisions that may have the effect of discouraging, delaying or preventing a change of control of, or unsolicited acquisition proposals, that a stockholder might consider favorable. These include provisions:

- requiring a majority vote of the outstanding shares of common stock to amend the bylaws;
- provide that the authorized number of directors may be changed only by resolution of the board of directors;

- provide that the board of directors or any individual director may only be removed with cause and the affirmative vote of the holders of at least 66-2/3% of the voting power of all of our then outstanding common stock;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- divide our board of directors into three classes;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner and also specify requirements as to the form and content of a stockholder's notice;
- do not provide for cumulative voting rights (therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose);
- provide that special meetings of our stockholders may be called only by the chairman of the board, our Chief Executive Officer or by the board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors; and
- provide that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors or officers to us or our stockholders, (iii) any action asserting a claim against us arising pursuant to any provision of the Delaware General Corporation Law or our certificate of incorporation or bylaws, or (iv) any action asserting a claim against us governed by the internal affairs doctrine. This exclusive forum provision may limit a stockholder's ability to bring such an action in a judicial forum that it finds favorable for such actions and may discourage such actions.

Furthermore, our board of directors has the authority to issue shares of preferred stock in one or more series and to fix the rights and preferences of these shares without stockholder approval. Any series of preferred stock is likely to be senior to our common stock with respect to dividends, liquidation rights and, possibly, voting rights. The ability of our board of directors to issue preferred stock also could have the effect of discouraging unsolicited acquisition proposals, thus adversely affecting the market price of our common stock.

In addition, Delaware law makes it difficult for stockholders that recently have acquired a large interest in a corporation to cause the merger or acquisition of the corporation against the directors' wishes. Under Section 203 of the Delaware General Corporation Law, a Delaware corporation may not engage in any merger or other business combination with an interested stockholder for a period of three years following the date that the stockholder became an interested stockholder except in limited circumstances, including by approval of the corporation's board of directors.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Our corporate and executive offices are in located in a leased facility in Austin, Texas. The current lease is month-to-month. We are evaluating leasing opportunities in Austin, Texas, and expect to negotiate a new lease in the coming weeks. We believe our current facilities and those that we believe are available to us are sufficient to meet our current needs and that suitable space will be available as and when needed. We do not own any real property.

Item 3. Legal Proceedings.

We are not subject to any litigation.

In October 2017, we received an informal demand from a former financial advisor, claiming that it is entitled to a warrant to purchase shares of common stock equal to three percent of our outstanding shares as of December 1, 2015, with “piggyback” registration rights. We believe this asserted claim lacks merit, and we intend to defend the claim vigorously. We have not reflected any expense or any effect on our capitalization or otherwise related to this demand because it is not yet possible to determine whether any effect is probable or reasonably estimable.

Item 4. Mine Safety Disclosures.

None.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Market Information

Our common stock began trading on the NASDAQ Capital Market under the symbol "GNPX" on March 29, 2018. Prior to that date, there was no public trading market for our common stock.

Holders of Record

As of April 6, 2018, there were approximately 133 stockholders of record of our common stock. The actual number of stockholders is greater than this number of record holders and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees. This number of holders of record also does not include stockholders whose shares may be held in trust or by other entities.

Dividend Policy

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings for use in the operation of our business and do not anticipate paying any dividends on our common stock in the foreseeable future. Any future determination to declare dividends will be made at the discretion of our board of directors and will depend on, among other factors, our financial condition, operating results, capital requirements, contractual restrictions, general business conditions and other factors that our board of directors may deem relevant. In addition, the terms of our loan and security agreement prohibit us from paying cash dividends.

Securities Authorized for Issuance Under Our Equity Compensation Plans

The following table sets forth information as of December 31, 2017 regarding shares of common stock that may be issued under our 2009 Equity Incentive Plan or upon the exercise of warrants issued to a provider of services to us, in each case after giving effect to the 6.6841954-for-1 forward split of our common stock effected in connection with the completion of our initial public offering in April 2018. As of the closing of our initial public offering, no additional equity awards will be made under our 2009 Equity Incentive Plan. In connection with the closing of our initial public offering on April 3, 2018, our 2018 Equity Incentive Plan and 2018 Employee Stock Purchase Plan became effective.

Plan category	Number of shares of common stock to be issued upon exercise of outstanding options and warrants (a)	Weighted-average exercise price of outstanding options and warrants (b)	Number of shares of common stock remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by stockholders	2,628,749	$ 1.31	554,963
Equity compensation plans not approved by stockholders (1)	205,404	$ 4.87	—

(1) Consists of two warrants issued to a provider of services to us.

Recent Sales of Unregistered Securities

During the 12 months ended December 31, 2017, we issued and sold the following unregistered securities (excluding those previously disclosed in a Quarterly Report on Form 10-Q or in a Current Report on Form 8-K), in each case giving effect to the conversion of each share of our outstanding preferred stock into one share of our common stock and the 6.6841954-for-1 forward split of our common stock effected in connection with the completion of our initial public offering in April 2018:

(1) On January 1, April 1, July 1 and October 1, 2017, we issued an aggregate of 133,684 shares of our common stock to a consultant in consideration of services provided by the consultant.

(2) On June 7, August 1 and September 1, 2017, we entered into a series of subscription agreements with various investors, pursuant to which we issued and sold to such investors an aggregate of 150,214 shares of our preferred stock at a purchase price of $5.27 per share, and received gross proceeds of $793,971.

(3) On May 15, 2017, we granted 73,526 shares of our common stock under our 2009 Equity Incentive Plan to one of our employees.

The offers, sales and issuances of the securities described in paragraphs (1) and (2) were deemed to be exempt from registration under the Securities Act in reliance on Section 4(2) (or Regulation D promulgated thereunder) in that the issuance of securities to the accredited investors did not involve a public offering. The recipients of securities in each of these transactions acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the securities issued in these transactions. Each of the recipients of securities in these transactions was an accredited investor under Rule 501 of Regulation D.

The offer, sale and issuance of the securities described in paragraph (3) were deemed to be exempt from registration under the Securities Act in reliance on either Rule 701 thereunder in that the transactions were under compensatory benefit plans and contracts relating to compensation as provided under Rule 701 or Section 4(2) in that the issuance of securities to the accredited investors did not involve a public offering. The recipient of such securities was our employee and received the securities under our 2009 Plan.

Each of the recipients of securities in these transactions had adequate access, through employment, business or other relationships, to information about us.

Use of Proceeds

On December 29, 2017, our Registration Statement on Form S-1, as amended (file No. 333-219386) was declared effective by the SEC for our initial public offering of common stock. We issued 1,280,000 shares of common stock at an offering price of $5.00 per share for gross proceeds of $6.4 million. After deducting underwriting discounts, commissions and offering costs incurred by us of $1.375 million, the net proceeds from the offering were $5.025 million. The offering was completed on April 3, 2018. The lead underwriter for the offering was Network 1 Financial Securities, Inc. No offering costs were paid or are payable, directly or indirectly, to our directors or officers, to persons owning 10% or more of any class of our equity securities, or to any of our affiliates.

We used approximately $200,000 of the net proceeds of our initial public offering to repay a loan from Domecq Sebastian, LLC, an owner of 10% or more of our common stock, as discussed under “Certain Relationships and Related Transactions, and Director Independence – Loan from Domecq Sebastian, LLC.”

We used approximately $25,000 of the net proceeds of our initial public offering to repay a loan from Viet Ly, an owner of 10% or more of our common stock, as discussed under “Certain Relationships and Related Transactions, and Director Independence – Loan from Viet Ly.”

We used approximately $45,000 of the net proceeds of our initial public offering to repay a loan from Rodney Varner, our Chief Executive Officer and an owner of 10% or more of our common stock, as discussed under “Certain Relationships and Related Transactions, and Director Independence – Loan from Rodney Varner.”

There has been no material change in the expected use of the net proceeds from our initial public offering as described in the final prospectus filed with the SEC on March 29, 2018 relating to the recently completed initial public offering of our common stock. Through April 6, 2018, we have used approximately $260,000 of the net proceeds from the offering. Pending such uses, we plan to continue investing the unused proceeds from the recently completed initial public offering of our common stock in fixed, non-speculative income instruments.

We have granted to Network 1 Financial Securities, Inc. an over-allotment option, which is exercisable on or before May 12, 2018, 45 days from the date of the underwriting agreement entered into in connection with our initial public offering and which permits the Network 1 Financial securities, Inc. to purchase up to 192,000 additional shares of our common stock (15% of the shares sold in our initial public offering) from us to cover over-allotments, if any. If the underwriter exercises all or part of this option, the underwriter will purchase shares covered by the option at the price of $5.00 per share, less the underwriting discount.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

Item 6. Selected Financial Data.

The following selected financial data should be read in conjunction with "*Management's Discussion and Analysis of Financial Condition and Results of Operations*," and our financial statements and the related notes thereto, each included elsewhere in this Annual Report on Form 10-K.

The statements of operations data for the years ended December 31, 2017 and 2016 and the balance sheet data as of December 31, 2017 and 2016 are derived from our audited financial statements included elsewhere in this Annual Report on Form 10-K. Our historical results are not necessarily indicative of the results that may be expected in any future period.

	Year Ended December 31,	
	2017	2016
Statement of Operations Data:		
Revenues	$ —	$ —
Depreciation	3,242	862
Research and development expense	289,934	354,883
General and administrative expense	3,019,171	3,776,414
Net loss	$ (3,314,157)	$ (4,132,159)
Net loss per share—basic and diluted	$ (0.29)	$ (0.38)
Weighted average number of common shares—basic and diluted	11,500,032	10,834,685

	As of December 31,	
	2017	2016
Balance Sheet Data:		
Cash	$ 161,251	$ 1,602,295
Working capital	(637,390)	1,353,167
Total assets	1,259,538	1,910,529
Accumulated deficit	(17,452,352)	(14,138,195)
Total stockholders' equity	428,574	1,624,868

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

This Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") contains certain forward-looking statements. Historical results may not indicate future performance. Our forward-looking statements reflect our current views about future events, are based on assumptions and are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those contemplated by these statements. Factors that may cause differences between actual results and those contemplated by forward- looking statements include, but are not limited to, those discussed in "Risk Factors." We undertake no obligation to publicly update or revise any forward-looking statements, including any changes that might result from any facts, events, or circumstances after the date hereof that may bear upon forward-looking statements. Furthermore, we cannot guarantee future results, events, levels of activity, performance, or achievements.

Overview

Genprex™ is a clinical stage gene therapy company developing a new approach to treating cancer, based upon our novel proprietary technology platform, including our initial product candidate, Oncoprex™ immunogene therapy, or Oncoprex. Our platform technologies are designed to encapsulate cancer fighting genes into nanoscale hollow spheres called nanovesicles, which are then administered intravenously and taken up by tumor cells where they express proteins that are missing or found in low quantities and modulate the immune environment to restore defective cancer fighting functions. We hold an exclusive worldwide license from The University of Texas MD Anderson Cancer Center, or MD Anderson, to patents covering the therapeutic use of a series of genes that have been shown in preclinical and clinical research to have cancer fighting properties. Researchers at MD Anderson have conducted a Phase I clinical trial and the Phase I portion of a Phase I/II clinical trial and are conducting the Phase II portion of that Phase I/II clinical trial in non-small cell lung cancer, or NSCLC. MD Anderson researchers have collaborated with other researchers to identify other genes, such as those in the 3p21.3 chromosomal region, that may act as tumor suppressors or have other cancer fighting functions. Data from preclinical studies performed by others suggest that product candidates that could be derived from our technology platform could be effective against other types of cancer, including breast, head and neck, renal cell (kidney), and soft tissue cancer, as well as NSCLC. Therefore, our platform technologies may allow delivery of a number of cancer fighting genes, alone or in combination with other cancer therapies, to combat multiple types of cancer.

On April 3, 2018, we completed our initial public offering, in which we sold an aggregate of 1,280,000 shares of our common stock at $5.00 per share, resulting in net proceeds of $5.025 million after underwriting discounts, commissions and offering expenses.

JOBS Act and Recent Accounting Pronouncements

The JOBS Act, enacted in 2012, provides that an "emerging growth company" can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933, as amended, for complying with new or revised accounting standards. In other words, an "emerging growth company" can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this extended transition period and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

We have implemented all new accounting pronouncements that are in effect and may affect our financial statements and we do not believe that there are any other new accounting pronouncements that have been issued that would have a material impact on our financial position or results of operations.

Critical Accounting Policies and Significant Judgments and Estimates

Our financial statements have been prepared in accordance with generally accepted accounting principles in the United States, or GAAP. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported expenses incurred during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe that the following accounting policies are the most critical to aid in fully understanding and evaluating our reported financial results, and they require our most difficult, subjective or complex judgments, resulting from the need to make estimates about the effect of matters that are inherently uncertain**.**

Research and Development Costs

We record accrued expenses for costs invoiced from research and development activities conducted, on our behalf, by third-party service providers, which include the conduct of pre-clinical studies and clinical trials and use of contract research and manufacturing activities. We record the costs of research and development activities based upon the amount of services provided, and we include these costs in accrued liabilities in the balance sheets and within research and development expense in the statement of operations. These costs are a significant component of our research and development expenses.

We estimate the amount of work completed through discussions with internal personnel and external service providers as to the progress or stage of completion of the services and the agreed-upon fee to be paid for such services. We make significant judgments and estimates in determining the accrued balance in each reporting period. As actual costs become known, we adjust our accrued estimates. Although we do not expect our estimates to be materially different from amounts actually incurred, our understanding of the status and timing of services performed, the number of patients enrolled and the rate of patient enrollment may vary from our estimates and could result in us reporting amounts that are too high or too low in any particular period. Our accrued expenses are dependent, in part, upon the receipt of timely and accurate reporting from clinical research organizations and other third-party service providers. To date, there have been no material differences from our accrued expenses to actual expenses.

Income Taxes

Deferred tax assets or liabilities are recorded for temporary differences between financial statement and tax basis of assets and liabilities, using enacted rates in effect for the year in which the differences are expected to reverse. A valuation allowance is recorded if it is more likely than not that a deferred tax asset will not be realized. We have provided a full valuation allowance on our deferred tax assets, which primarily consist of cumulative net operating losses from April 1, 2009 (inception) to December 31, 2017. Due to our history of operating losses since inception and losses expected to be incurred in the foreseeable future, a full valuation allowance was considered necessary.

Impairment of Long-Lived Assets

Management reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount may not be realizable or at a minimum annually during the fourth quarter of the year. If an evaluation is required, the estimated future undiscounted cash flows associated with the asset are compared to the asset's carrying value to determine if an impairment of such asset is necessary. The effect of any impairment would be to expense the difference between the fair value of such asset and its carrying value.

Components of our Results of Operations and Financial Condition

Operating expenses

We classify our operating expenses into three categories: research and development, general and administrative, and depreciation.

Research and development. Research and development expenses consist primarily of:

- costs incurred to conduct research, such as the discovery and development of our current and potential product candidates;
- costs related to production and storage of clinical supplies, including fees paid to contract manufacturers, manufacturing consultants, and cold-storage facilities;
- fees paid to clinical consultants, clinical trial sites and vendors, including clinical research organizations in conjunction with implementing and monitoring our clinical trials and acquiring and evaluating clinical trial data, including all related fees, such as patient screening fees, laboratory work, and statistical compilation and analysis; and
- costs related to compliance with drug development regulatory requirements.

We recognize all research and development costs as they are incurred. Clinical trial costs, contract manufacturing and other development costs incurred by third parties are expensed as the contracted work is performed.

We expect our research and development expenses to increase in the future as we advance our current and potential product candidates into and through clinical trials and pursue regulatory approval of our current and potential product candidates in the United States and Europe. The process of conducting the necessary clinical research to obtain regulatory approval is costly and time-consuming. The actual probability of success for our current and potential product candidates may be affected by a variety of factors

including the quality of our current and potential product candidates, early clinical data, investment in our clinical program, competition, manufacturing capability and commercial viability. We may never succeed in achieving regulatory approval for any of our current and potential product candidates. As a result of the uncertainties discussed above, we are unable to determine the duration and completion costs of our research and development projects or when and to what extent we will generate revenue from the commercialization and sale of our current and potential product candidates.

General and administrative. General and administrative expense consists of personnel related costs, which include salaries, as well as the costs of professional services, such as accounting and legal, facilities, information technology and other administrative expenses. We expect our general and administrative expense to increase following our initial public offering due to the anticipated growth of our business and related infrastructure as well as accounting, insurance, investor relations, and other costs associated with being a public company.

Depreciation. Depreciation expense consists of depreciation on our property and equipment. We depreciate our assets over their estimated useful life. We estimate computer and office equipment to have a 5-year life.

Results of Operations

Comparison of the Years Ended December 31, 2017 and 2016

The following summarizes our results of operations for the years ended December 31, 2017 and 2016.

Research and Development Expense. Research and development expense consists primarily of the discovery and development of our current and potential product candidates; costs related to production of clinical supplies, including fees paid to contract manufacturers, fees paid to clinical consultants, clinical trial sites and vendors, including clinical research organizations in conjunction with implementing and monitoring our clinical trials and acquiring and evaluating clinical trial data; and costs related to compliance with drug development regulatory requirements.

Research and development expense was $289,934 for the year ended December 31, 2017 as compared to $354,883 for the year ended December 31, 2016. This slight decrease of $64,949 was primarily due to the Company’s greater emphasis on completing the initial public offering in 2017.

We expect research and development expense to increase significantly in future periods as we expand our clinical and research programs.

General and Administrative Expense. General and administrative expense primarily consists of personnel costs, travel, information technology, facilities, and professional service fees. Professional services fees primarily consist of legal, accounting and consulting costs.

General and administrative expense for the year ended December 31, 2017 was $3,019,171 as compared to $3,776,414 for the year ended December 31, 2016. The $757,243 decrease in general and administrative expense is related primarily to a larger than normal equity-based compensation amount issued in 2016 to recruit leadership and technical talent to our team. Excluding this expense, an increase of $576,283 for the year ended December 31, 2017 versus December 31, 2016 was primarily due to increased headcount, associated employee-related expenses, and expenses related to the Company’s initial public offering.

We expect general and administrative expense to increase in future periods due to additional legal, accounting, insurance, investor relations and other costs associated with being a public company.

Interest Expense. Interest expense was $1,890 and $0 for the years ended December 31, 2017 and 2016, respectively. This increase of $1,890 was entirely due to increase in utilization of debt in 2017 compared to the prior year.

Depreciation Expense. Depreciation expense was $3,242 and $862 for the years ended December 31, 2017 and 2016, respectively. Depreciation is generated from our fixed assets, which consist only of computer equipment at this time. The slight increase of $2,380 in depreciation is due to additional equipment purchased and utilized by new employees during the year ended in 2017.

Liquidity and Capital Resources

From our inception through December 31, 2017, we have never generated revenue from product sales and have incurred net losses in each year since inception. As of December 31, 2017, we had an accumulated deficit of $17,452,352. We have funded our operations primarily through the sale and issuance of preferred stock. In connection with our initial public offering, we converted all preferred stock to common stock and forward-split the common stock on a 6.6841954-to-1 basis. During 2016, we sold 76,577 shares of Series G preferred stock at $35.33 per share, or 511,852 shares of common stock at $5.29 per share taking into account the conversion and forward-split, to various investment funds for a total of $2,705,872. During 2017, we sold 22,473 shares of Series G preferred stock at $35.33 per share or 150,211 shares of common stock at $5.29 per share taking into account the conversion and forward-split, for a total of $793,971.

As of December 31, 2017, we had $161,251 in cash.

We believe the net proceeds of our recent public offering, together with the cash at December 31, 2017, will be sufficient to meet our cash, operational and liquidity requirements for at least 10 months.

We do not expect to generate revenue from product sales unless and until we successfully complete development of, obtain regulatory approval for and begin to commercialize one or more of our current and potential product candidates, which we expect will take a number of years and which is subject to significant uncertainty. Accordingly, we anticipate that we will need to raise additional capital to fund our future operations. Until such time as we can generate substantial revenue from product sales, if ever, we expect to finance our operating activities through a combination of equity offerings and debt financings and we may seek to raise additional capital through strategic collaborations. However, we may be unable to raise additional funds or enter into such arrangements when needed on favorable terms, or at all, which would have a negative impact on our financial condition and could force us to delay, limit, reduce or terminate our development programs or commercialization efforts or grant to others rights to develop or market product candidates that we would otherwise prefer to develop and market ourselves. Failure to receive additional funding could cause us to cease operations, in part or in full. Furthermore, even if we believe we have sufficient funds for our current or future operating plans, we may seek additional capital due to favorable market conditions or strategic considerations.

Our independent registered public accounting firm has indicated that our financial condition raises substantial doubt as to our ability to continue as a going concern.

The following table sets forth the primary sources and uses of cash for the years ended December 31, 2017 and 2016:

	Years Ended December 31,	
	2017	2016
Net cash used in operating activities	$ (2,171,594)	$ (1,248,263)
Net cash used in investing activities	(63,421)	(89,534)
Net cash provided by financing activities	793,971	2,705,872
Net (decrease) increase in cash	(1,441,044)	1,368,075

Cash used in operating activities

Net cash used in operating activities was $2,171,594 and $1,248,263 for the years ended December 31, 2017 and 2016, respectively. The $923,331 increase in net cash used in operating activities was primarily due to increased headcount, associated employee-related expenses, and expenses related to the Company’s initial public offering.

Cash used in investing activities

Net cash used in investing activities was $63,421 and $89,534 for the years ended December 31, 2017 and 2016, respectively. The decrease of $26,113 was primarily due to increased patent prosecution expenses necessary to protect our intellectual property during the year ended December 31, 2016.

Cash provided by financing activities

Net cash provided by financing activities was $793,971 and $2,705,872 for the years ended December 31, 2017 and 2016, respectively. The $1,911,901 decrease in net cash provided by financing activities was primarily due to the Company’s strategic financial activities during the 2016 year in order to raise sufficient capital to expand clinical operations and prepare for an initial public offering in the coming year.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

The primary objective of our investment activities is to preserve our capital to fund our operations. We also seek to maximize income from our investments without assuming significant risk. To achieve our objectives, we maintain a portfolio of cash equivalents and investments in securities of high credit quality. As of December 31, 2017, we had cash of $161,251 consisting of cash and investments in money market funds. A significant portion of our investments may be subject to interest rate risk and could fall in value if market interest rates increase. However, because our investments are primarily short-term in duration, we believe that our exposure to interest rate risk is not significant and a 1% movement in market interest rates would not have a significant impact on the total value of our portfolio. We actively monitor changes in interest rates.

Item 8. Financial Statements and Supplementary Data.

The financial statements and supplementary data required by this item are included after Part IV of this Annual Report on Form 10-K beginning on page F-1.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

As required by Rules 13a-15(b) and 15d-15(b) of the Exchange Act, our management with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2017. The term "disclosure controls and procedures" as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officer, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of December 31, 2017, our Chief Executive Officer and our Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Report on Internal Control over Financial Reporting

This Annual Report on Form 10-K does not include a report of management's assessment regarding internal control over financial reporting or an attestation report of our registered public accounting firm due to a transition period established by rules of the SEC for newly public companies.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the quarter ended December 31, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations of Disclosure Controls and Internal Control over Financial Reporting

Because of their inherent limitations, our disclosure controls and procedures and our internal control over financial reporting may not prevent material errors or fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. The effectiveness of our disclosure controls and procedures and our internal control over financial reporting is subject to risks, including that the controls may become inadequate because of changes in conditions or that the degree of compliance with our policies or procedures may deteriorate.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The following table sets forth certain information regarding our executive officers and directors as of April 10, 2018.

Name	Age	Position
Executive Officers		
J. Rodney Varner	61	Chief Executive Officer, Secretary, Director and Chairman of the Board of Directors
Julien L. Pham, MD, MPH	41	President and Chief Operating Officer
Ryan M. Confer	36	Chief Financial Officer
Non-Employee Directors		
David E. Friedman	54	Director
Robert W. Pearson	55	Director

Set forth below is biographical information about each of the individuals named in the tables above:

Executive Officers

J. Rodney Varner is a co-founder of Genprex and has served as our Chief Executive Officer and Secretary, and as a member of our board of directors and as Chairman of our board of directors since August 2012. Mr. Varner also served as our President until April 10, 2018. Mr. Varner served as a partner of the law firm Wilson & Varner, LLP, since 1991. Mr. Varner has more than thirty-five years of legal experience with large and small law firms, and as outside general counsel of a Nasdaq listed company. Mr. Varner has represented for-profit and non-profit companies at the board of directors or senior management levels in a wide variety of contractual, business, tax and securities matters, including technology transfers, licensing, collaboration and research agreements, clinical trial contracts, pharmaceutical and biologics manufacturing and process development contracts, state and federal grants, including NIH and SBA grants, corporate governance and fiduciary issues, and real estate matters. Mr. Varner served as counsel in company formation, mergers and acquisitions, capital raising, other business transactions, protection of trade secrets and other intellectual property, real estate, and business litigation. Mr. Varner is a member of the State Bar of Texas and has been admitted to practice before the United States Court of Appeals for the Fifth Circuit and the United States Tax Court. Mr. Varner received his BBA, with high honors, from Texas A&M University and his J.D. from The University of Texas School of Law.

Julien L. Pham, MD, MPH has served as our Chief Operating Officer since October 2016 and as our President since April 10, 2018. In March 2013, Dr. Pham co-founded RubiconMD, a healthcare IT company that connects primary care providers to specialists for additional guidance and opinions on medical cases, and served as its Chief Medical Officer from March 2013 to September 2016. Prior to co-founding RubiconMD, Dr. Pham served on the faculty at Harvard Medical School's Brigham and Women's Hospital, where he joined as a fellow in July 2008 and became an Associate Physician in the Division of Nephrology in August 2011. Dr. Pham has over fifteen years of leadership experience in clinical settings and in emerging medical technology companies. During this time, he has held various research and teaching positions including Chief Residency in Internal Medicine and Pediatrics at the University of Illinois at Chicago Medical Center, and has received multiple awards including excellence in teaching awards from AOA and Harvard Medical School. He is a board-certified internal medicine doctor and nephrologist. Dr. Pham has received NIH research funding for translational research while at Harvard Medical School, and he has published in basic science, translational, and health policy fields. He holds a BS in Cell and Molecular Biology from University of Washington and received his MD from the University of Washington School of Medicine and his MPH at the Harvard School of Public Health.

Ryan M. Confer has served as our Chief Financial Officer since September 2016. From December 2013 through September 2016, he served as our Chief Operating and Financial Officer, and from June 2011 to December 2013 as our business Manager. Mr. Confer has served us in a variety of strategic, operations, and finance capacities since our inception in 2009 both as a consultant through his own firm, Confer Capital, Inc., and as an employee. Mr. Confer has over ten years of executive experience in planning, launching, developing, and growing emerging technology companies and has served in the chief operating and chief financial roles for non-profit and for-profit entities since 2008. Mr. Confer has also served as an international business development consultant for the University of Texas at Austin's IC2 Institute, where he focused on evaluating the commercialization potential of nascent technologies in domestic and international markets applicable to technology incubator programs associated with the University. Mr. Confer holds a BS in finance and legal studies from Bloomsburg University of Pennsylvania and an MS in technology commercialization from the McCombs School of Business at the University of Texas at Austin.

Each of Mr. Varner, Dr. Pham and Mr. Confer is currently a full-time employee of Genprex. Mr. Varner spends fewer than 10

hours per month on duties relating to Wilson & Varner, LLP; Dr. Pham spends fewer than 10 hours per month in continuing medical practice to comply with licensing requirements; and Mr. Confer spends fewer than 10 hours per month providing financial consulting services to other companies that are not competitive with us.

Non-Employee Directors

David E. Friedman has served as a member of our board of directors since August 2012. Since August 2010, Mr. Friedman has served as a partner of TCG Group Holdings, an Austin, Texas based SEC-registered investment advisor to separately-managed institutional and private client accounts. In addition, since January 2012, Mr. Friedman has served as a managing partner of ACM Investment Management, which manages hedge fund assets acquired from KeyCorp, the bank holding company parent of KeyBank. From 2006 to 2010, Mr. Friedman served as the Chief Operating Officer of Austin Capital Management, which was owned by KeyCorp, where he led the company's non-investment functions, including all legal, finance, investor relations, technology and operations teams. Before joining Austin Capital, Mr. Friedman was a Director on the Global Prime Brokerage desk of Citigroup in New York, and an associate at the law firm of Proskauer Rose in its New York headquarters. Mr. Friedman received his BS in management from Tulane University and his JD from Duke University School of Law. He is admitted to the Bar of the State of New York and holds FINRA Series 4, 7, 24 and 63 securities registrations. We believe that Mr. Friedman's unique and valuable mix of high-level and relevant finance, legal and operations experience makes him a well-rounded business leader and a valuable member of our board of directors.

Robert W. Pearson has served as a member of our board of directors since July 2012. In June 2009, Mr. Pearson joined W2O Group, a global network of complementary marketing, communications, research and development firms, and has held a number of senior positions at W2O Group, including Chief Technology Officer, President and since February 2017, Vice Chair and Chief Innovation Officer. From March 2012 to February 2017, Mr. Pearson served as President of W2O, and from June 2009 to March 2012 as its Chief Technology & Media Officer. From 2007 to 2009, Mr. Pearson served as Dell Inc.'s Vice President, Communities and Conversations, and before that as its Vice President, Corporate Group Communications. From 2003 to 2006, Mr. Pearson served as Head of Global Corporate Communications and as Head of Global Pharma Communications at Novartis Pharmaceuticals, where he also served on the Pharma Executive Committee. Before joining Novartis, Mr. Pearson served as President, The Americas and Chair, Healthcare Practice for GCI Group, a global public relations consultancy, and was responsible for creating and building the firm's global healthcare practice. Mr. Pearson previously served as Vice President of Media and Public Affairs at Rhone-Poulenc Rorer, or RPR (now Sanofi-Aventis) and worked at RPR and Ciba-Geigy in communications and pharmaceutical field sales. Mr. Pearson holds a BA from the University of North Carolina at Greensboro and an MBA from Fairleigh Dickinson University. We believe that Mr. Pearson's senior management experience at international pharmaceutical companies and public relations/ investor relations firms, as well as with start up businesses, and his knowledge and personal contacts in the pharmaceutical industry, and his business management acumen, make him a valuable member of our board of directors.

Board Composition

The primary responsibilities of our board of directors are to provide oversight, strategic guidance, counseling and direction to our management. Our board of directors meets on a regular basis and additionally as required. Our board of directors currently consists of three directors.

In accordance with our amended and restated certificate of incorporation, our board of directors is divided into three classes with staggered, three-year terms. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. Our directors are divided among the three classes as follows:

- the Class I director will be David Friedman, and his term will expire at our first annual meeting of stockholders following the recently completed initial public offering of our common stock;
- the Class II director will be Robert Pearson, and his term will expire at our second annual meeting of stockholders following the recently completed initial public offering of our common stock; and
- the Class III director will be Rodney Varner, and his term will expire at the third annual meeting of stockholders following the recently completed initial public offering of our common stock.

Our amended and restated certificate of incorporation and amended and restated bylaws provide that the authorized number of directors may be changed only by resolution of the board of directors. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control of our company. Our directors may be removed only for cause by the affirmative vote of the holders of at least two-thirds of our outstanding voting stock entitled to vote in the election of directors.

Director Independence

Our common stock is listed on The Nasdaq Capital Market. Under the listing requirements and rules of The Nasdaq Capital Market, independent directors must constitute a majority of a listed company's board of directors within 12 months after its initial public offering. In addition, the rules of The Nasdaq Capital Market require that, subject to specified exceptions and phase-in periods following its initial public offering, each member of a listed company's audit, compensation and nominating and governance committee be independent, and that a listed company's audit committee must have at least three members and a listed company's compensation committee must have at least two members. Under the rules of The Nasdaq Capital Market, a director will only qualify as an "independent director" if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

We intend to rely on the phase-in rules of The Nasdaq Capital Market with respect to the independence of our board of directors and the audit committee. In accordance with these phase-in provisions, our board of directors and the audit, compensation, and nominating and corporate governance committees have at least two independent members, and all members will be independent within one year of the effective date of the registration statement relating to the recently completed initial public offering of our common stock.

Audit committee members must also satisfy independence criteria set forth in Rule 10A-3 under the Exchange Act, or Rule 10A-3. To be considered to be independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of a company's audit committee, the company's board of directors or any other board committee: (1) accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries; or (2) be an affiliated person of the listed company or any of its subsidiaries.

Our board of directors has undertaken a review of its composition, the composition of its committees and the independence of each director. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our board of directors has determined that other than Rodney Varner, our President and CEO who serves on the board of directors as the Chairman, each of our directors does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is "independent" as that term is defined under the applicable rules and regulations of the listing requirements and rules of The Nasdaq Capital Market and under the applicable rules and regulations of the SEC. In making this determination, our board of directors considered the current and prior relationships that each non-employee director has with us and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director.

Board Committees

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee. Our board of directors may establish other committees to facilitate the management of our business. The composition and functions of each committee are described below. Members serve on these committees until their resignation or until otherwise determined by our board of directors.

Audit Committee

Our audit committee consists of David Friedman and Robert Pearson. The chair of our audit committee is Mr. Friedman, who our board of directors has determined is an "audit committee financial expert" as that term is defined by the SEC rules implementing Section 407 of the Sarbanes-Oxley Act, and possesses financial sophistication, as defined under the listing standards of The Nasdaq Capital Market. Our board of directors has also determined that each member of our audit committee can read and understand fundamental financial statements in accordance with applicable requirements. In arriving at these determinations, the board of directors has examined each audit committee member's scope of experience and the nature of their experience in the corporate finance sector.

The responsibilities of our audit committee include:

- appointing, approving the compensation of, and assessing the independence of our registered public accounting firm;
- overseeing the work of our registered public accounting firm, including through the receipt and consideration of reports from such firm;
- reviewing and discussing with management and the registered public accounting firm our annual and quarterly financial statements and related disclosures;
- monitoring our internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;
- discussing our risk management policies;
- reviewing and approving or ratifying any related person transactions; and
- preparing the audit committee report required by SEC rules.

Compensation Committee

Our compensation committee consists of David Friedman and Robert Pearson. The chair of our compensation committee is Mr. Pearson.

The responsibilities of our compensation committee include:

- reviewing and approving, or recommending that our board of directors approve, the compensation of our chief executive officer and our other executive officers;
- reviewing and recommending to our board of directors the compensation of our directors;
- selecting independent compensation consultants and advisers and assessing whether there are any conflicts of interest with any of the committees compensation advisers; and
- reviewing and approving, or recommending that our board of directors approve, incentive compensation and equity plans.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee consists of David Friedman and Robert Pearson. The chair of our nominating and corporate governance committee is Mr. Friedman.

The responsibilities of our nominating and corporate governance committee include:

- identifying individuals qualified to become members of our board;
- recommending to our board the persons to be nominated for election as directors and for appointment to each of the board's committees;
- reviewing and making recommendations to our board with respect to management succession planning;
- developing and recommending to our board corporate governance principles; and
- overseeing a periodic evaluation of our board.

Role of the Board in Risk Oversight

The audit committee of our board is primarily responsible for overseeing our risk management processes on behalf of our board. Going forward, we expect that the audit committee will receive reports from management on at least a quarterly basis regarding our assessment of risks. In addition, the audit committee reports regularly to our board, which also considers our risk profile. The audit committee and our board focus on the most significant risks we face and our general risk management strategies. While our board oversees our risk management, management is responsible for day-to-day risk management team processes.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended (the "***Exchange Act***"), requires the Company's directors, executive officers, and persons who own more than ten percent (10%) of a registered class of the Company's equity securities, to file initial reports of ownership and reports of changes in ownership of Common Stock and other equity securities of the Company with the SEC. Officers, directors and stockholders holding more than ten percent (10%) of the outstanding capital stock of the Company are required by SEC regulations to furnish the Company with copies of all Section 16(a) reports they file.

During the fiscal year ended December 31, 2017, the Company was not subject to the requirements of Section 16(a) of the Exchange Act.

Code of Business Conduct and Ethics

We have adopted a written Code of Business Conduct and Ethics, or Ethics Code, that applies to all officers, directors and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. The Ethics Code is available on our website at www.genprex.com. If we make any substantive amendments to the Ethics Code or grant any waiver from a provision of the Ethics Code to any executive officer or director, we will promptly disclose the nature of the amendment or waiver on our website or in a current report on Form 8-K.

Item 11. Executive Compensation.

Our named executive officers for the year ended December 31, 2017, which consist of our principal executive officer and our two other most highly compensated executive officers, are:

- J. Rodney Varner, our Chief Executive Officer;
- Julien L. Pham, M.D., M.P.H., our President and Chief Operating Officer; and
- Ryan M. Confer, our Chief Financial Officer

Summary Compensation Table

Name and Principal Position	Year	Salary ($)	Stock Awards ($)(1)	All other compensation ($)(2)	Total ($)
J. Rodney Varner					
Chief Executive Officer	2017	300,000	—	34,069	334,069
Julien L. Pham					
Chief Operating Officer	2017	285,000	—	16,515	301,515
Ryan M. Confer					
Chief Financial Officer	2017	180,000	388,630	16,492	585,122

(1) In accordance with SEC rules, this column reflects the aggregate grant date fair value of the stock awards granted during 2017. These amounts have been computed in accordance with FASB ASC Topic 718. Assumptions used in the calculation of these amounts are described in Note 5 to our financial statements included elsewhere in this Annual Report on Form 10-K. These amounts do not reflect the actual economic value that will be realized by the named executive officer upon the vesting of the stock options, the exercise of the stock options, or the sale of the common stock underlying such stock options.

(2) This column reflects medical and term life insurance premiums paid by us on behalf of each of the named executive officers. The insurance benefits are provided to the named executive officers on the same terms as provided to all of our regular full-time employees. For more information regarding these benefits, see below under "—Perquisites, Health, Welfare and Retirement Benefits."

Annual Base Salary

The base salary of our named executive officers is generally determined and approved periodically or in connection with the commencement of employment of the executive, by our board of directors. As of December 31, 2017, base salaries for our named executive officers, which became effective as of October 1, 2016 for Mr. Varner and Mr. Confer, and as of October 23, 2016 for Dr. Pham, are provided below.

Name	2017 Base Salary ($)
J. Rodney Varner	300,000
Julien Pham	285,000
Ryan Confer	180,000

Bonus Compensation

From time to time our board of directors or compensation committee may approve bonuses for our named executive officers based on individual performance, company performance or as otherwise determined appropriate. In 2017, our executive officers were not entitled to any target or minimum bonus and no specific performance goals or bonus program were established for our named executive officers.

Pursuant to Mr. Varner's employment agreement, he is eligible to receive an annual cash bonus upon the achievement of performance objectives mutually agreed between Mr. Varner and the board of directors.

Pursuant to Mr. Confer's employment agreement, he is eligible to receive an annual cash bonus upon the achievement of performance objectives mutually agreed between Mr. Confer and the board of directors.

Equity-Based Incentive Awards

Our equity-based incentive awards are designed to align our interests and those of our stockholders with those of our employees and consultants, including our named executive officers. The board of directors is responsible for approving equity grants. As of the date of this Form 10-K, stock awards in exchange for services were the only form of equity awards we granted to our named executive officers in 2017.

We have historically used stock options as an incentive for long-term compensation to our named executive officers because they are able to profit from stock options only if our stock price increases relative to the stock option's exercise price, which exercise price is set at no less than the fair market value of our common stock on the date of grant. We may grant equity awards at such times as our board of directors determines appropriate. Our executives generally are awarded an initial grant in the form of a stock option in connection with their commencement of employment with us. Additional grants may be made periodically in order to specifically incentivize executives with respect to achieving certain corporate goals or to reward executives for exceptional performance.

Prior to the recently completed initial public offering of our common stock, we granted all stock options pursuant to our 2009 Equity Incentive Plan. Following our initial public offering, we will grant equity incentive awards under the terms of our 2018 Equity Incentive Plan.

All options are granted with an exercise price per share that is no less than the fair market value of our common stock on the date of grant of such award. Our stock option awards generally vest over a four-year period and may be subject to acceleration of vesting and exercisability under certain termination and change in control events. See "—Outstanding Equity Awards at Fiscal Year-End."

In May 2017, the board of directors granted an award of 73,526 shares of common stock to Mr. Confer in consideration of past services. Each of these shares had a value of $5.29 per share and was fully vested on the date of grant.

Agreements with Named Executive Officers

Employment Agreement with Rodney Varner

We have entered into an employment agreement with Mr. Varner, our Chief Executive Officer, which became effective in April 2018, following the closing of the recently completed initial public offering of our common stock. Mr. Varner's employment under the agreement is at will and may be terminated at any time by us or by him. Under the terms of the agreement, Mr. Varner is initially entitled to receive an annual base salary of $350,000. The agreement provides that the Company may pay Mr. Varner a bonus as described above under "—Bonus Compensation" and provides that the Company may grant to Mr. Varner options to purchase shares of common stock.

The agreement provides that during the term of Mr. Varner's employment with us and for one year after the termination of his employment, Mr. Varner will not encourage any of our employees or consultants to leave Genprex and will not compete or assist others to compete with us.

If, prior to a change of control, we terminate Mr. Varner's employment without cause or if Mr. Varner resigns for good reason, and Mr. Varner delivers to us a signed settlement agreement and general release of claims, we are obligated to pay Mr. Varner: (i) a severance payment equal to 18 months of Mr. Varner's base salary then in effect; (ii) a payment equal to Mr. Varner's then applicable annual target bonus, calculated at full attainment; (iii) reimbursement of COBRA premium payments made by Mr. Varner for the 12 months following such termination; and (iv) acceleration as to 100% of Mr. Varner's unvested equity awards from us, subject in the case of (i) and (ii) to our having at least $5 million in cash or cash equivalents and a net worth of at least $5 million on the date of termination.

If, within 12 months following a change of control, Mr. Varner's employment is terminated without cause or Mr. Varner resigns for good reason, and he delivers to us a signed settlement agreement and general release of claims, we are obligated to pay Mr. Varner: (i) a severance payment equal to 18 months of Mr. Varner's base salary then in effect; (ii) a payment equal to Mr. Varner's then applicable target bonus for 18 months, calculated at full attainment; (iii) reimbursement of COBRA premium payments made by Mr. Varner for the 18 months following such termination; and (iv) acceleration as to 100% of Mr. Varner's unvested equity awards from us, subject in the case of (i) and (ii) to our having at least $5 million in cash or cash equivalents and a net worth of at least $5 million on the date of termination.

For the purposes of Mr. Varner's employment agreement, "cause" means the occurrence of any of the following events: (i) a determination by our board of directors that Mr. Varner's performance is unsatisfactory after there has been delivered to him a written demand for performance which describes the specific deficiencies in his performance and the specific manner in which his performance must be improved, and which provides 30 business days from the date of notice to remedy such performance deficiencies; (ii) Mr. Varner's conviction of or plea of nolo contendere to a felony or a crime involving moral turpitude which our board of directors reasonably finds has had or will have a detrimental effect on our reputation or business; (iii) Mr. Varner's engaging in an act of gross negligence or willful misconduct in the performance of his employment obligations and duties that materially harms us; (iv) Mr. Varner's committing an act of fraud against, material misconduct or willful misappropriation of property belonging to us; or (v) Mr. Varner's material breach of his confidentiality, invention assignment and noncompetition agreement with us or of any other unauthorized misuse of our trade secrets or proprietary information.

For purposes of Mr. Varner's employment agreement, "good reason" means the occurrence of any of the following taken without Mr. Varner's written consent and conditioned on (a) his providing us with notice of the basis for such resignation for good reason, (b) our failure to cure the event constituting good reason within 30 days after notice and (c) his termination of his employment within 30 days following the expiration of the cure period: (i) a material change in Mr. Varner's position, titles, offices or duties; (ii) an assignment of any significant duties to Mr. Varner that are inconsistent with his positions or offices held under his employment agreement; (iii) a decrease in Mr. Varner's then current annual base salary by more than 10% (other than in connection with a general decrease in the salary of all of our other similarly situated employees); or (iv) the relocation of Mr. Varner to a facility or a location more than 50 miles from his then current location.

Employment Agreement with Julien Pham

In October 2016, we entered into an employment agreement with Dr. Pham, our President and Chief Operating Officer. Dr. Pham's employment under the agreement is at will and may be terminated at any time by us or by him. Under the terms of the agreement, Dr. Pham is initially entitled to receive an annual base salary of $285,000 and an option to purchase shares of our common stock under our 2009 Plan.

On November 3, 2016, we granted Julien Pham an option to purchase 162,800 shares of common stock, at an exercise price of $5.29 per share. The option vests at a rate of 1/48 of the shares subject to the option each month following October 26, 2016.

The agreement provides that during the term of Dr. Pham's employment with us and for one year after the termination of his employment, Dr. Pham will not encourage any of our employees or consultants to leave Genprex and will not compete or assist others to compete with us.

If Dr. Pham is employed by us for at least one year and we terminate Dr. Pham's employment without cause or if Dr. Pham resigns for good reason, we are obligated to pay Dr. Pham, subject to our having at least $5 million in cash or cash equivalents and a net worth of at least $5 million on the date of termination, a severance payment equal to six months of Dr. Pham's base salary then in effect.

For the purposes of Dr. Pham's employment agreement, "cause" means the occurrence of any of the following events: (i) his failure or inability to perform his duties as described in the employment agreement; or (ii) his breach of the employment agreement. For purposes of Dr. Pham's employment agreement, "good reason" means the occurrence of any of the following events: (i) Dr. Pham is not paid compensation under the employment agreement when due; (ii) Dr. Pham's job title is changed without his consent; (iii) we or stockholders acting in concert sell a majority of our issued and outstanding shares in one transaction or a series of coordinated transactions to a single buyer or a group of buyers acting in concert with each other; or (iv) we sell substantially all of our assets.

Employment Agreement with Ryan Confer

We have entered into an employment agreement with Mr. Confer, our Chief Financial Officer, which became effective in April 2018, following the closing of the recently completed initial public offering of our common stock. Mr. Confer's employment under the agreement is at will and may be terminated at any time by us or by him. Under the terms of the agreement, Mr. Confer is initially entitled to receive an annual base salary of $240,000. The agreement provides that the Company may pay Mr. Confer a bonus as described above under "—Bonus Compensation" and provides that the Company may grant to Mr. Confer options to purchase shares of common stock.

The agreement provides that during the term of Mr. Confer's employment with us and for one year after the termination of his employment, Mr. Confer will not encourage any of our employees or consultants to leave Genprex and will not compete or assist others to compete with us.

If we terminate Mr. Confer' employment without cause or if Mr. Confer resigns for good reason, and Mr. Confer delivers to us a signed settlement agreement and general release of claims, we are obligated to pay Mr. Confer: (i) a severance payment equal to 12 months of Mr. Confer' base salary then in effect; (ii) a payment equal to Mr. Confer's then applicable annual target bonus, calculated at full attainment; (iii) reimbursement of COBRA premium payments made by Mr. Confer for the 12 months following such termination; and (iv) acceleration as to 100% of Mr. Confer's unvested equity awards from us, subject in the case of (i) and (ii) to our having at least $5 million in cash or cash equivalents and a net worth of at least $5 million on the date of termination.

For the purposes of Mr. Confer's employment agreement, "cause" means the occurrence of any of the following events: (i) a determination by our board of directors that Mr. Confer's performance is unsatisfactory after there has been delivered to him a written demand for performance which describes the specific deficiencies in his performance and the specific manner in which his performance must be improved, and which provides 30 business days from the date of notice to remedy such performance deficiencies; (ii) Mr. Confer's conviction of or plea of nolo contendere to a felony or a crime involving moral turpitude which our board of directors reasonably finds has had or will have a detrimental effect on our reputation or business; (iii) Mr. Confer's engaging in an act of gross negligence or willful misconduct in the performance of his employment obligations and duties that materially harms us; (iv) Mr. Confer's committing an act of fraud against, material misconduct or willful misappropriation of property belonging to us; or (v) Mr. Confer's material breach of his confidentiality, invention assignment and noncompetition agreement with us or of any other unauthorized misuse of our trade secrets or proprietary information.

For purposes of Mr. Confer's employment agreement, "good reason" means the occurrence of any of the following taken without Mr. Confer's written consent and conditioned on (a) his providing us with notice of the basis for such resignation for good reason, (b) our failure to cure the event constituting good reason within 30 days after notice and (c) his termination of his employment within 30 days following the expiration of the cure period: (i) a material change in Mr. Confer's position, titles, offices or duties; (ii) an assignment of any significant duties to Mr. Confer that are inconsistent with his positions or offices held under his employment agreement; (iii) a decrease in Mr. Confer's then current annual base salary by more than 10% (other than in connection with a general decrease in the salary of all of our other similarly situated employees); or (iv) the relocation of Mr. Confer to a facility or a location more than 50 miles from his then current location.

Any potential payments and benefits due upon a qualifying termination of employment or a change in control are further described below under "—Potential Payments and Benefits upon Termination or Change in Control."

Potential Payments and Benefits upon Termination or Change in Control

Regardless of the manner in which a named executive officer's service terminates, each named executive officer is entitled to receive amounts earned during his term of service, including unpaid salary. In addition, each Mr. Varner, Dr. Pham and Mr. Confer is entitled to receive certain benefits upon our termination of his employment without cause or his resignation for good reason, and Mr. Varner is entitled to receive certain additional benefits upon such a termination or resignation within 12 months after a change of control, all as provided above under "—Agreements with Named Executive Officers."

Each of our named executive officers holds stock options that were granted subject to the general terms and termination and change in control provisions of our 2009 Equity Incentive Plan.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth certain information regarding equity awards granted to our named executive officers that were outstanding as of December 31, 2017.

	Option Awards(1)					
Name	Grant Date	Number of securities underlying unexercised option (#) exercisable	Number of securities underlying unexercised option (#) unexercisable		Option exercise price ($)(2)	Option expiration date
J. Rodney Varner	4/11/2016	645,572	—		$ 0.96	4/11/2026
Julien Pham	11/3/2016	47,483	115,317	(3)	$ 5.29	11/3/2026
Ryan Confer	7/25/2012	116,973	—		$ 0.01	7/25/2022
	4/11/2016	161,396	—		$ 0.96	4/11/2026
	11/3/2016	86,894	—		$ 5.29	11/3/2026

(1) All of the outstanding stock option awards were granted under and subject to the terms of our 2009 Equity Incentive Plan. As of December 31, 2017, each option award becomes exercisable as it becomes vested and all vesting is subject to the executive's continuous service with us through the vesting dates and the potential vesting acceleration described above under "—Potential Payments and Benefits upon Termination or Change in Control."

(2) All of the stock option awards were granted with a per share exercise price no less than the fair market value of one share of our common stock on the date of grant, as determined in good faith by our board of directors.

(3) 3,392 shares will vest each month until October 25, 2020.

Perquisites, Health, Welfare and Retirement Benefits

Our named executive officers, during their employment with us, are eligible to participate in our employee benefit plans, including our medical, dental, vision, employee whole life, disability and accidental death and dismemberment insurance plans, in each case on the same basis as all of our other employees. We do not provide a 401(k) plan to our employees at this time.

We generally do not provide perquisites or personal benefits to our named executive officers, except in limited circumstances. We do, however, pay the premiums for medical, dental, vision, employee whole life, disability and accidental death and dismemberment insurance for all of our employees, including our named executive officers. Our board of directors may elect to adopt qualified or nonqualified benefit plans in the future if it determines that doing so is in our best interests.

Director Compensation

Historically, we have not paid cash compensation to any of our non-employee directors for service on our board of directors. We did not pay equity compensation to our non-employee directors in 2017 for service on our board of directors.

We have reimbursed and will continue to reimburse all of our non-employee directors for their travel, lodging and other reasonable expenses incurred in attending meetings of our board of directors and committees of our board of directors.

Our board of directors adopted a new compensation policy in September 2017 that became effective upon the completion of the recently completed initial public offering of our common stock and will be applicable to all of our non-employee directors. This compensation policy provides that each such non-employee director may receive any of the following compensation elements for service on our board of directors:

- an annual cash retainer of $25,000;
- for each non-employee director who first joins our board of directors, an initial option grant to purchase shares of our common stock with a value of $175,000, pro rated monthly for the period between the date of our last annual meeting of stockholders and the date such non-employee director first joins our board of directors, on the date of commencement of service on the board, vesting on the earlier of the one-year anniversary of the grant date or the day prior to the next annual meeting of stockholders; and
- an annual option grant to purchase shares of our common stock having a value of $175,000 for each non-employee director serving on the board of directors on the date of our annual stockholder meeting, vesting one year following the grant date.

Each of the option grants described above will vest and become exercisable subject to the director's continuous service to us, provided that each option will vest in full upon a change in control (as defined under our 2018 Equity Incentive Plan). The term of each option will be 10 years, subject to earlier termination as provided in the 2018 Equity Incentive Plan. The options will be granted under our 2018 Equity Incentive Plan.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The following table sets forth information as of April 6, 2018, regarding beneficial ownership of our capital stock by:

- each person, or group of affiliated persons, known by us to beneficially own more than 5% of any class of our voting securities;
- each of our directors;
- each of our named executive officers; and
- all of our current executive officers and directors as a group.

The table lists applicable percentage ownership based on 13,035,004 shares of common stock outstanding as of April 6, 2018. Options to purchase shares of our common stock that are exercisable within 60 days of April 6, 2018, are deemed to be beneficially owned by the persons holding these options for the purpose of computing percentage ownership of that person, but are not treated as outstanding for the purpose of computing any other person's ownership percentage

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Except as noted by footnote, and subject to community property laws where applicable, we believe, based on the information provided to us, that the persons and entities named in the table below have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them.

Except as otherwise noted below, the address for each person or entity listed in the table is c/o Genprex, Inc., 100 Congress Ave., Suite 2000, Austin, Texas 78701.

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned
5% or Greater Stockholders		
Christy Mallinson Nance(1)	3,167,694	24.0%
Jack A. Roth, MD, FACS(2)	2,388,851	18.3%
Viet-An Hoan Ly and affiliated entities(3)	1,772,630	13.0%
Texas Treasury Safekeeping Trust Company(4)	1,235,219	9.5%
Directors and Named Executive Officers		
J. Rodney Varner(5)	2,804,459	20.5%
Julien Pham(6)	64,441	*
Ryan Confer(7)	438,789	3.3%
David E. Friedman(8)	307,111	2.3%
Robert W. Pearson(9)	307,111	2.3%
All current executive officers and directors as a group (5 persons)(5)(6)(7)(8)(9)	3,921,911	26.6%

* Represents beneficial ownership of less than 1%.

(1) Includes 2,956,298 shares of common stock held by Domecq Sebastian, LLC and 161,396 shares of common stock that Domecq Sebastian, LLC has the right to acquire from us within 60 days of April 6, 2018 pursuant to the exercise of stock options. Domecq Sebastian, LLC is affiliated with David Nance, a former director and officer who is now deceased. Christy Mallinson Nance holds voting and dispositive power of the securities held by Domecq Sebastian, LLC. The address of Domecq Sebastian, LLC is 8203 Scenic Ridge Cove, Austin, Texas 78735.

(2) Includes 1,338,999 shares of common stock held by JREG Investments, Ltd. Dr. Roth holds voting and dispositive power over the shares held by JREG Investments, Ltd. The address of JREG Investments, Ltd. and of Dr. Roth is 6516 Brompton Road, Houston, Texas 77005.

(3) Includes (a) 583,008 shares of common stock held by Inception Fund LP, (b) 475,974 shares of common stock held by Tangletrade Fund LP, (c) 102,000 shares of common stock held by Inception Incubator Limited, (d) 3,154 shares of common stock held by Blackbox Data LLC, (e) 9,023 shares of common stock held by New Path Mining LLC, (f) 542,656 shares of common stock that Viet-An Hoan Ly has the right to acquire from us within 60 days of April 6, 2018 pursuant to the exercise of a warrant and (g) 56,815 shares of common stock that Mr. Ly has the right to acquire from us within 60 days of April 6, 2018 pursuant to the exercise of stock options. Viet-An Hoan Ly holds voting and dispositive power over the shares held by Inception Fund, Tangletrade Fund LP, Inception Incubator Limited, Blackbox Data LLC and New Path Mining LLC. The address of each of these entities and of Mr. Ly is 5400 Carillon Point Road, Building 5000, Kirkland, Washington 98033.

(4) Paul Ballard, the Chief Executive Officer of the Texas Treasury Safekeeping Trust Company, holds voting and dispositive power of the securities held by the Texas Treasury Safekeeping Trust Company. The address of the Texas Treasury Safekeeping Trust Company is 208 East 10th Street, Austin, Texas 78701.

(5) Includes (a) 1,614,152 shares of common stock held by Laura Lane Biosciences, LLC and (b) 645,572 shares of common stock that Mr. Varner has the right to acquire from us within 60 days of April 6, 2018 pursuant to the exercise of stock options. Mr. Varner holds voting power over the shares held by Laura Lane Biosciences, LLC.

(6) Consists of 64,441 shares of common stock that Dr. Pham has the right to acquire from us within 60 days of April 6, 2018 pursuant to the exercise of stock options.

(7) Consists of 73,526 shares of common stock and 365,263 shares of common stock that Mr. Confer has the right to acquire from us within 60 days of April 6, 2018 pursuant to the exercise of stock options.

(8) Consists of 307,111 shares of common stock that Mr. Friedman has the right to acquire from us within 60 days of April 6, 2018 pursuant to the exercise of stock options.

(9) Consists of 307,111 shares of common stock that Mr. Pearson has the right to acquire from us within 60 days of April 6, 2018 pursuant to the exercise of stock options.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The following includes a summary of transactions since January 1, 2016 to which we have been a party, in which the amount involved in the transaction exceeded 1% of the average of our total assets at December 31, 2017 and 2016, and in which any of our directors, executive officers or, to our knowledge, beneficial owners of more than 5% of any class of our voting securities or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest, other than equity and other compensation, termination, change in control and other arrangements, which are described under "Executive Compensation." Share and per-share amounts presented below give effect to the 6.6841954-for-1 forward split of our common stock effected in connection with the completion of our initial public offering in April 2018

Issuances of Securities to Domecq Sebastian, LLC

In April 2016, we issued an option to purchase 161,396 shares of our common stock with an exercise price of $0.96 per share, to Domecq Sebastian, LLC, the beneficial owner of more than 5% of a class of our voting securities which is affiliated with David Nance, a former director and officer who is now deceased, in exchange for services provided by that entity.

Loan from Domecq Sebastian, LLC

On December 8, 2017, we received a loan from Domecq Sebastian, LLC in the amount of $200,000 and executed a Promissory Note under which we agreed to repay the loan on or before March 31, 2018, with interest at a rate of 15% per annum. We have repaid this note with a portion of the proceeds of the recently completed initial public offering of our common stock.

Purchase of Shares in the Offering by Christy Mallinson Nance

Christy Mallinson Nance, who holds voting and dispositive power over the securities held by Domecq Sebastian, LLC, purchased an aggregate of 50,000 shares of our common stock in our recent initial public offering.

Issuances of Securities to Jack A. Roth, MD, FACS

Pursuant to a Consulting Agreement between us and Jack A. Roth, MD, FACS, the beneficial owner of more than 5% of a class of our voting securities and the Chairman of our SMA Board, we issue to Dr. Roth an aggregate of 133,683 shares of our common stock each year. We issue these shares to Dr. Roth at the beginning of each calendar quarter. Under this arrangement, we issued to Dr. Roth an aggregate of 133,683 shares of our common stock in each of 2016 and 2017.

Purchase of Shares in the Offering by JREG Investments, Ltd.

JREG Investments, Ltd., an affiliate of Dr. Roth, purchased an aggregate of 40,000 shares of our common stock in our recent initial public offering.

Issuances of Securities to Viet-An Hoan Ly

Series G Preferred Stock

From January 1, 2016 to December 31, 2017, we entered into a series of subscription agreements with various investment funds affiliated with Viet-An Hoan Ly, who is, together with his affiliated investment funds, a beneficial owner of more than 5% of a class of our voting securities, pursuant to which we issued and sold to such entities an aggregate of 687,621 shares of our Series G preferred stock at a purchase price of $5.29 per share, and received gross proceeds of approximately $3.6 million.

Warrants to Purchase Common Stock

In November 2016, we issued to Mr. Ly a warrant exercisable for an aggregate of 542,656 shares of our voting common stock, with an exercise price of $5.29 per share. The purchase price of the warrant was $8,119. That warrant is currently exercisable, expires on November 1, 2026, and is currently outstanding.

Options to Purchase Common Stock

In April 2016, we granted to Mr. Ly an option to purchase 56,815 shares of our common stock, with an exercise price of $0.96 per share. This option was fully vested at the time of grant and is currently outstanding.

Loan from Viet Ly

On March 9, 2018, we received a loan from Viet Ly in the amount of $25,000 and executed a Promissory Note under which we agreed to repay the loan on or before June 9, 2018, with no interest rate if paid prior to maturity and a rate of 10% per annum if not paid on maturity. We have repaid this note with a portion of the proceeds of the recently completed initial public offering of our common stock.

Services Provided by Confer Capital, Inc.

We paid $65,000 in 2016 to Confer Capital, Inc., an entity affiliated with Ryan Confer, our Chief Financial Officer. Confer Capital, Inc. provided strategic, financial, and executive managerial services to us at times when Ryan Confer was not our employee.

Royalty Payments to Introgen Research Institute, Inc.

Pursuant to an Amended Collaboration and Assignment Agreement dated July 1, 2011 between us and Introgen Research Institute, Inc., or IRI (the "2011 IRI Collaboration Agreement"), we are obligated to IRI a royalty of 1% of net sales of licensed products and 1% of certain other payments received by us, with respect to intellectual property owned by MD Anderson and licensed to us by IRI. This royalty obligation continues for 21 years after the later of the termination of the MD Anderson License Agreement and the termination of the Technology Sublicense Agreement. IRI is affiliated with Rodney Varner, our Chief Executive
Officer and the Chairman of our board of directors. We made no payments under the 2011 IRI Collaboration Agreement in 2016 or 2017.

Loan from Rodney Varner

On March 28, 2018, we received a loan from Rodney Varner in the amount of $45,000 and executed a Promissory Note under which we agreed to repay the loan on or before April 6, 2018, with no interest rate if paid prior to maturity and a rate of 10% per annum if not paid on maturity. We have repaid this note with a portion of the proceeds from the recently completed initial public offering of our common stock.

Purchase of Shares in the Offering by Rodney Varner

Mr. Varner purchased an aggregate of 10,000 shares of our common stock in the recently completed initial public offering of our common stock.

Employment and Consulting Arrangements

In October 2016, we entered into an employment agreement with Julien Pham, our President and Chief Operating Officer. This agreement is described in the section titled "Executive Compensation." In April 2018, we entered into an employment agreement with each of Rodney Varner, our Chief Executive Officer and Ryan Confer, our Chief Financial Officer, each of which employment agreements became effective upon the closing of the recently completed initial public offering of our common stock.

Pursuant to a Consulting Agreement dated November 5, 2009, we pay to Jack A. Roth, MD, FACS, annual cash fees at the highest amount which is consistent with the policies of MD Anderson, increased annually by a percentage equal to the automatic cost of living adjustment set forth for Social Security. Under this arrangement, we paid Dr. Roth an aggregate of $192,191 in 2016 and $197,192 in 2017.

Stock Options Granted to Executive Officers and Directors

We have granted stock options and shares of our common stock to our executive officers, as more fully described in the section titled "Executive Compensation."

In April 2016, we granted Rodney Varner an option to purchase 645,572 shares of common stock and we granted to each of Ryan Confer, David Friedman and Robert Pearson an option to purchase 161,396 shares of common stock, each at an exercise price of $0.96 per share. Each option was fully vested on the date of grant.

In November 2016, we granted Julien Pham an option to purchase 162,800 shares of common stock, at an exercise price of $5.29 per share. The option vests at a rate of 1/48 of the shares subject to the option each month following October 26, 2016.

Also in November 2016, we granted Ryan Confer an option to purchase 86,894 shares of common stock, at an exercise price of $5.29 per share. Each option was fully vested on the date of grant.

Indemnification Agreements

We have entered, and intend to continue to enter, into separate indemnification agreements with each of our directors and executive officers.

Policies and Procedures for Transactions with Related Persons

We have adopted a written related-person transactions policy that sets forth our policies and procedures regarding the identification, review, consideration and oversight of "related-person transactions." For purposes of our policy only, a "related-person transaction" is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which we and any "related person" are participants involving an amount that exceeds the lesser of $120,000 and one percent of the average of our total assets for our last two completed fiscal years.

Transactions involving compensation for services provided to us as an employee, consultant or director are not considered related-person transactions under this policy. A related person is any executive officer, director, nominee to become a director or a holder of more than five percent of our common stock, including any of their immediate family members and affiliates, including entities owned or controlled by such persons.

Under the policy, where a transaction has been identified as a related-person transaction, management must present information regarding the proposed related-person transaction to our audit committee (or, where review by our audit committee would be inappropriate, to another independent body of our board of directors) for review. The presentation must include a description of, among other things, all of the parties thereto, the direct and indirect interests of the related persons, the purpose of the transaction, the material facts, the benefits of the transaction to us and whether any alternative transactions are available, an assessment of whether the terms are comparable to the terms available from unrelated third parties and management's recommendation. To identify related-person transactions in advance, we rely on information supplied by our executive officers, directors and certain significant stockholders. In considering related-person transactions, our audit committee or another independent body of our board of directors takes into account the relevant available facts and circumstances including, but not limited to:

- the risks, costs and benefits to us;
- the impact on a director's independence in the event the related person is a director, immediate family member of a director or an entity with which a director is affiliated;
- the terms of the transaction;
- the availability of other sources for comparable services or products; and
- the terms available to or from, as the case may be, unrelated third parties.

In the event a director has an interest in the proposed transaction, the director must recuse himself or herself from the deliberations and approval.

Item 14. Principal Accounting Fees and Services.

Audit Fees

The following table sets forth the fees billed by Daszkal Bolton LLP for audit, audit-related, tax and all other services rendered for 2017 and 2016:

Fee Category	2017	2016
Audit Fees	$ 67,099	$ 23,000
Audit-Related Fees		
Tax Fees	3,400	3,300
All Other Fees		7,000
Total Fees	$ 70,499	$ 33,300

Audit Fees. Audit fees consist of fees billed for the audit of our annual consolidated financial statements, the review of the interim consolidated financial statements, and related services that are normally provided in connection with registration statements,

including the registration statement for our initial public offering. Included in the 2017 audit fees is $56,599 of fees billed in connection with our initial public offering in April 2018.

Tax Fees. Tax fees consist of aggregate fees for tax compliance and tax advice, including the review and preparation of our various jurisdictions' income tax returns.

The audit committee pre-approved all services performed.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a)(1) Financial statements.

The financial statements and supplementary data required by this item begin on page F-1.

(a)(2) Financial Statement Schedules.

All schedules are omitted because the required information is inapplicable or the information is presented in the financial statements and the related notes.

(a)(3) Exhibits.

The exhibits listed in the accompanying index to exhibits are filed as part of, or incorporated by reference into, this Annual Report on Form 10-K.

Item 16. Form 10–K Summary.

None.

INDEX TO FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

To the Board of Directors and
Stockholders of Genprex, Inc.
Austin, Texas

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Genprex Inc. (the "Company") at December 31, 2017 and 2016, and the related statements of operations, changes in stockholders' equity, and cash flows for each of the years in the two-year period ended December 31, 2017, and the related notes (collectively referred to as the financial statements). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As described in Note 1 to the financial statements, the Company has no revenues, sustained recurring losses from operations and increased accumulated deficits since inception. These conditions raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty. Our opinion is not modified with respect to this matter.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Daszkal Bolton LLP
We have served as the Company's auditor since 2014.

Boca Raton, Florida
April 17, 2018

Genprex, Inc.

Balance Sheets

	2017	2016
Assets		
Current assets:		
Cash	$ 161,251	$ 1,602,295
Accounts receivable	8,844	8,181
Prepaid expenses and other	23,479	28,352
Total current assets	193,574	1,638,828
Property and equipment, net	7,804	5,157
Other assets:		
Deferred offering costs	759,591	25,507
Intellectual property, net	298,569	241,037
Total other assets	1,058,161	266,544
Total assets	$ 1,259,538	$ 1,910,529
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable and accrued expenses	$ 629,074	$ 285,661
Other current liabilities	201,890	—
Total current liabilities	830,964	285,661
Investment unit	—	—
Commitments and contingencies		
Stockholders' equity:		
Common stock $0.001 par value: 200,000,000 shares authorized; 11,721,584 and 11,364,167 shares issued and outstanding, respectively	11,721	11,364
Additional paid-in capital	17,869,205	15,751,699
Accumulated deficit	(17,452,352)	(14,138,195)
Total stockholders' equity	428,574	1,624,868
Total liabilities and stockholders' equity	$ 1,259,538	$ 1,910,529

See accompanying notes to the financial statements

Genprex, Inc.

Statements of Operations

	Year Ended December 31,	
	2017	2016
Revenues	$ —	$ —
Cost and expenses:		
Depreciation	3,242	862
Research and development	289,934	354,883
General and administrative	3,019,171	3,776,414
Total costs and expenses	3,312,347	4,132,159
Operating loss	(3,312,347)	(4,132,159)
Other income (expense):		
Interest income	80	—
Interest expense	(1,890)	—
Other income (expense)	(1,810)	—
Net loss	$ (3,314,157)	$ (4,132,159)
Net loss per share	(0.29)	(0.38)
Weighted average number of shares		
Weighted average number of common shares (basic and diluted)	11,500,032	10,834,685

See accompanying notes to the financial statements

Genprex, Inc.

Statements of Changes in Stockholders' Equity

	Common Stock		Preferred Stock				
	Shares	Amount	Shares	Amount	Additional Paid-In Capital	Accumulated Deficit	Total
Balance at December 31, 2015	10,728,100	$ 10,728	—	$ —	$10,389,045	$(10,006,036)	$ 393,737
Issuance of stock for cash	511,852	512	—	—	2,705,360	—	2,705,872
Issuance of stock for services	124,215	124	—	—	419,326	—	419,450
Share based compensation	—	—	—	—	2,237,968	—	2,237,968
Net loss	—	—	—	—	—	(4,132,159)	(4,132,159)
Balance at December 31, 2016	11,364,167	$ 11,364	—	$ —	$15,751,699	$(14,138,195)	$ 1,624,868
Issuance of stock for cash	150,211	150	—	—	793,821	—	793,971
Issuance of stock for services	207,206	207	—	—	1,095,023	—	1,095,230
Share based compensation	—	—	—	—	228,662	—	228,662
Net loss	—	—	—	—	—	(3,314,157)	(3,314,157)
Balance at December 31, 2017	11,721,584	$ 11,721	—	$ —	$17,869,205	$(17,452,352)	$ 428,574

See accompanying notes to the financial statements

Genprex, Inc.

Statements of Cash Flows

	2017	2016
Cash flows from operating activities:		
Net loss	$ (3,314,157)	$ (4,132,159)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	3,242	862
Share based compensation	1,323,892	2,657,418
Changes in operating assets and liabilities:		
Accounts receivable	(663)	(875)
Prepaid expenses and other	4,873	(19,828)
Deposits	—	2,519
Deferred offering costs	(734,084)	(25,507)
Accounts payable and accrued expenses	545,303	269,307
Net cash used in operating activities	(2,171,594)	(1,248,263)
Cash flows from investing activities:		
Additions to property and equipment	(5,889)	(4,978)
Additions to intellectual property	(57,532)	(84,556)
Net cash used in investing activities	(63,421)	(89,534)
Cash flows from financing activities:		
Proceeds from issuances of common stock	793,971	2,705,872
Net cash provided by financing activities	793,971	2,705,872
Net (decrease) increase in cash	(1,441,044)	1,368,075
Cash, beginning of year	1,602,295	234,220
Cash, end of year	$ 161,251	$ 1,602,295

See accompanying notes to the financial statements

Note 1 – Description of Business and Basis of Presentation

Genprex, Inc. ("we" or "the Company"), is a privately held, clinical-stage biopharmaceutical company developing immunogene therapies for cancer. Our first product candidate, branded as Oncoprex™, is in phase II clinical trials for lung cancer patients in the United States.

We are subject to all the risks inherent in a start-up company in the biopharmaceutical industry. The biopharmaceutical industry is subject to rapid and technological change. We have numerous competitors, including major pharmaceutical and chemical companies, specialized biotechnology firms, universities and other research institutions. These competitors may succeed in developing technologies and products that are more effective than any that are being developed by us or that would render our technology and products obsolete and noncompetitive. Many of these competitors have substantially greater financial and technical resources than us. In addition, many of our competitors have significantly greater experience than us in pre-clinical testing and human clinical trials of new or improved pharmaceutical products and in obtaining FDA and other regulatory approvals on products for use in health care.

Capital Requirements, Liquidity and Going Concern Considerations

Our financial statements are prepared using the generally accepted accounting principles applicable to a going concern, which contemplates the realization of assets and liquidation of liabilities in the normal course of business. However, as shown in the accompanying financial statements, we have sustained substantial losses from operations since inception and have no current source of revenue. In addition, we have used, rather than provided, cash in our operations. We expect to continue to incur significant expenditures to further clinical trials for the commercial development of our patents.

Management recognizes that we must obtain additional resources to successfully commercialize our intellectual property. To date, we have received funding in the form of equity and debt, and have recently secured a capital market transaction through an initial public offering. We plan to continue to raise funds to support or programs in 2018 and beyond. However, no assurances can be given that we will be successful in raising additional capital. If we are not able to timely and successfully raise additional capital, the timing of our clinical trials, financial condition and results of operations will continue to be materially affected. These financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts and classification of liabilities that might be necessary should we be unable to continue as a going concern.

Note 2 – Summary of Significant Accounting Policies

The accompanying audited financial statements have been prepared in accordance with U.S. generally accepted accounting principles (“GAAP”) and reflect all adjustments, which are of a normal and recurring nature, that are, in the opinion of management, necessary for a fair presentation of our financial position and results of operations for the related periods. The results of operations for any interim periods are not necessarily indicative of results to be expected for the full year. A summary of our significant accounting policies consistently applied in the preparation of the accompanying financial statements follows.

Capital Stock

In connection with the Company’s completed IPO (see Subsequent Events Note) in April 2018, all of the Company’s Preferred Stock and Non-Voting Common Stock were converted into shares of the Company’s Common Stock. The Company’s Common Stock was then forward-split at a ratio of 6.6841954-to-1. Furthermore, prior to the closing of the IPO, the Company’s Certificate of Incorporation was amended and restated to provide the Company with the authority to issue up to 210,000,000 shares of stock consisting of 200,000,000 shares of Common Stock at a par value of $0.001 per share and 10,000,000 shares of Preferred Stock at a par value of $0.001 per share.

Restatement of Balance Sheet at December 31, 2016

Subsequent to the auditors’ issuance of their report on our December 31, 2016 financial statements, management became aware of a scrivener’s error in the terms of certain options granted, resulting in a $136,810 increase in share-based compensation (accumulated deficit) and additional paid-in capital during the fourth quarter of 2016.

Use of Estimates

The preparation of our financial statements in conformity with GAAP requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of expenses during the reporting period. Actual results could differ from those estimates.

Cash and Cash Equivalents

We consider all highly liquid short-term investments with an initial maturity of three months or less to be cash equivalents. Any amounts of cash in financial institutions which exceed FDIC insured limits expose us to cash concentration risk. We have no cash equivalents, and had $0 and $1,351,868 in excess of FDIC insured limits of $250,000 at December 31, 2017 and December 31, 2016 respectively.

Fair Value of Financial Instruments

The carrying amounts reported in the balance sheet for cash, accounts payable and accrued expenses approximate fair value because of the immediate or short-term maturity of these financial instruments.

ASC 820 defines fair value, provides a consistent framework for measuring fair value under GAAP and expands fair value financial statement disclosure requirements. ASC 820's valuation techniques are based on observable and unobservable inputs. Observable inputs reflect readily obtainable data from independent sources, while unobservable inputs reflect our market assumptions. ASC 820 classifies these inputs into the following hierarchy:

Level 1: Quoted prices for identical instruments in active markets.

Level 2: Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations whose inputs are observable or whose significant value drivers are observable.

Level 3: Instruments with primarily unobservable value drivers.

Property and Equipment

Furniture and equipment are stated at cost. Depreciation is calculated using the straight-line method over the estimated useful lives of the assets, which range from three to five years. Routine maintenance and repairs are charged to expense as incurred and major renovations or improvements are capitalized.

Research and Development Materials Costs

Research and development expenditures are comprised of costs incurred to conduct research and development activities. These include payments to collaborative research partners, including wages and associated employee benefits, facilities and overhead costs. These expenditures relate to Phase 1 and 2 clinical trials and are expensed as incurred. Purchased materials to be used in future research are capitalized and included in prepaid expenses.

Awards

In 2010, we were awarded $4.5 million from the State of Texas Emerging Technology Fund ("TETF"). The award was received in two tranches of $2.25 million during 2010 and 2011. The award proceeds were used for the development and future commercialization of our nanomolecular therapy product for the treatment of cancer. In consideration for the award, we provided the TETF with an "Investment Unit", consisting of (i) a Promissory Note ("Note") and (ii) a right to purchase our equity shares ("Warrant"). The funds received for this award were assigned to the Investment Unit, and classified separately from equity as "mezzanine" in the balance sheet.

In 2010, we also were awarded approximately $244,500 from the U.S. Treasury Department for our QTDP Program Nanoparticle Therapy for Lung Cancer. The award was received during 2011 for our historical activities, and required no prospective expenditures. We accounted for these funds received as revenue at that time.

Intellectual Property

Intellectual property consists of external legal and related costs associated with patents and other proprietary technology acquired, licensed by, or maintained by us that we believe contribute to a probable economic benefit toward such patents and activities. These legal costs incurred in connection with the patent applications and patent maintenance are capitalized. Intellectual property is stated at cost, to be amortized on a straight-line basis over the estimated useful lives of the assets.

Accounting for Stock-Based Compensation

We use the fair value-based method of accounting for stock-based compensation for options granted to employees, independent consultants and contractors. We measure options granted at fair value determined as of the grant date, and recognize the expense over the periods in which the related services are rendered based on the terms and conditions of the award. Generally, where the award only has a service condition, the requisite service period is the same as the vesting period.

Financial Instruments

We have elected the Fair Value Option to account for the Investment Unit at fair value as a combined hybrid financial instrument containing a Warrant and a Note (see Investment Unit Note). Prior to its exercise, the Warrant component was not classified within equity, as the exercise price of the warrants was affected by the market price of our stock in a future qualifying financing transaction and was not considered to be indexed to our own stock. The Note is not classified within liabilities, as our management can determine the timing of the repayment obligation, if any. As a result, the Warrant and Note that comprised the Investment Unit were aggregated and classified within the mezzanine section of the balance sheet.

Due to the contingent terms of the financial instruments, changes in the fair value of the Investment Unit were calculated and realized in earnings. There were no changes in the fair value of the Investment Unit at December 31, 2017.

Long-Lived Assets

We review long-lived assets and certain identifiable intangibles held and used for possible impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. In evaluating the fair value and future benefits of its intangible assets, management performs an analysis of the anticipated undiscounted future net cash flow of the individual assets over the remaining amortization period. We recognize an impairment loss if the carrying value of the asset exceeds the expected future cash flows. During the years ended December 31, 2017 and December 31, 2016, there were no deemed impairments of our long-lived assets.

Recent Accounting Developments

Accounting pronouncements issued but not effective until after December 31, 2017 are not expected to have a significant effect on our financial condition, results of operations, or cash flows.

Note 3 – Intellectual Property

We have exclusive license agreements on thirty (30) issued and two (2) pending patents for technologies developed by researchers at the National Cancer Institute, The University of Texas MD Anderson Cancer Center, and The University of Texas Southwestern Medical Center. These patents comprise various therapeutic, diagnostic, technical and processing claims. These license rights will be amortized on a straight-line basis over the estimated period of useful lives of the underlying patents or the license agreements.

Note 4 – Investment Unit

The Texas Emerging Technology Fund (“TETF”) was created as an incentive for economic development to the Texas economy by providing financial support that leverage private investment for the creation of high-quality technology jobs in Texas. The award received required us to comply with certain performance conditions to ensure the monies the Company received were used for development activities in the state of Texas, and that we maintained our corporate nexus in Texas. Further, in connection with the award, the Company issued an Investment Unit to the TETF. As further described below, the Investment Unit consists of a Promissory Note and a Right to Purchase:

Promissory Note

The Promissory Note is an obligation to repay the $4.5 million principal amount, with interest accrued at 8% per annum, but only if an event of default occurs prior to August 13, 2020. If no event of default occurs prior to August 13, 2020, the Promissory Note and all related interest will be cancelled.

Consistent with the stated objectives of the TETF, an event of default that would trigger the repayment obligation under the Promissory Note is our failure to maintain our principal place of business or our principal executive offices headquartered in the State of Texas (referred to as the "Residency Requirement") until August 13, 2020.

Warrant

The Warrant is an obligation to issue (a Right to purchase by the TETF) shares of the same class of stock to be issued in a "First Qualifying Financing Transaction," at 80% of the per share transaction value (effectively a 20% discount). Alternatively, the TETF could exercise its right to purchase at any time prior to the occurrence of a First Qualifying Financial Transaction for $0.001 per share.

The Warrant included a provision that required changes in the strike price, driven by the pricing of the "First Qualifying Financing Transaction." As a result, the Warrants embedded in the Investment Unit were accounted for as a derivative financial instrument and classified outside from equity under ASC 815-40-15 as the settlement adjustment from the future transaction did not permit for the strike price to be considered fixed.

On March 12, 2014, the TETF exercised its Right to Purchase for $0.001 per share, and we issued to the TETF an aggregate of 184,797 shares of our Series B preferred stock. Upon completion of the Company's IPO, the TETF's shares were converted to Common Stock and forward-split resulting in 1,235,219 shares of Common Stock.

Accounting for the Investment Unit

We accounted for the Investment Unit as a hybrid financial instrument under FASB Statement 155, and measured the Investment Unit at the amount of proceeds received from the TETF award. The First Qualifying Financial Transaction occurred during December 2013, resulting in an adjustment to the fair value of the Investment Unit in the amount of approximately $2.5 million. The TETF exercised the Warrant for $0.001 per share. We received notice of purchase from the TETF during March 2014, and issued 184,797 shares of series B Preferred Stock, which has since been converted to 1,235,219 shares of Common Stock upon completion of the Company's IPO. Upon exercise by the TETF of the Warrant, the remaining component within the Investment Unit was the Promissory Note. The Investment Unit was valued at zero, because our obligation to repay the Promissory Note arises from an event of default (a failure to maintain the Texas Residency Requirement), which is an event which rests entirely within our control.

Note 5 – Equity

Stock Issuances

During the year ended December 31, 2017, we issued (i) 207,206 shares of Common Stock, taking into account the forward-split ratio from the Company's IPO, for service provided to us, valued at $1,095,230 and we issued (ii) 22,473 shares of Series G Preferred Stock, which has since been converted to Common Stock and forward-split representing 150,211 shares of Common Stock, for cash of $793,971.

During the year ended December 31, 2016, we issued (i) 133,683 shares of Common Stock, on a forward-split basis, for service provided to us, valued at $469,450, we issued (ii) 76,577 shares of Series G Preferred Stock, which have since been converted to Common Stock and forward-split representing 511,852 shares of Common Stock for cash of $2,705,872, and we cancelled (iii) 9,468 shares of Series G Preferred Stock, representing 1,416 shares prior to the forward-split, valued at $50,000, due to nonperformance of services.

In October 2016, we hired a Chief Operating Officer. Under the terms of the agreement, we granted options to purchase shares of our Common Stock equal to one and one-half percent (1.5%) of our issued and outstanding common shares then outstanding. These options will vest ratably over 48 months.

Preferred Stock

In connection with the Company's IPO, all Preferred Stock included in Series A through Series G, totaling 1,394,953 shares at December 31, 2017, were converted to 9,324,177 shares of Common Stock in associated with the forward-split (See Capital Stock Note). Upon the completion of the IPO, the Company is authorized to issue 10,000,000 shares of Preferred Stock at a par value of $0.001 per share, none of which are outstanding as of December 31, 2017.

Common Stock

Upon the completion of the IPO, all of the Company's non-voting Common Stock automatically converted to into Voting Common Stock on a one-to-one basis. Immediately following the completion of the IPO, the Company is authorized to issue 200,000,000 shares of Common Stock at a par value of $0.001 per share, which includes 200,000,000 shares of Voting Common Stock at a par value of $0.001.

Common Stock Purchase Warrants

Common Stock purchase warrant activity for years ended December 31, 2017 and December 31, 2016 respectively are as follows:

	Number of Warrants	Weighted Avg. Exercise Price
Outstanding at January 1, 2016	205,404	$ 4.87
Issued	542,656	5.29
Cancelled or expired	—	—
Exercised	—	—
Outstanding at December 31, 2016	748,060	$ 5.17
Issued	—	—
Cancelled or expired	—	—
Exercised	—	—
Outstanding at December 31, 2017	748,060	$ 5.17

During November 2016, we granted warrants to purchase 542,656 shares of our voting Common Stock with a per share strike price of $5.29, taking into account the forward-split ratio from the Company's IPO. We received $8,119 for the purchase of these warrants.

Stock Options

We have outstanding stock options to purchase 2,628,749 shares of Common Stock, taking into account the forward-split ratio from the Company's IPO, that have been granted to various employees, vendors and independent contractors. These options vest over periods ranging from twelve (12) to forty-eight (48) months, are exercisable for a period of ten years, and enable the holders to purchase shares of our Common Stock at exercise prices ranging from $0.001 - $5.286. The per-share fair values of these options range from $0.001 to $2.68, based on Black-Scholes-Merton pricing models with the following assumptions. The weighted average remaining contractual term for the outstanding options at December 31, 2017 and 2016 is 7.26 and 8.24, years, respectively.

Stock Options, continued

Stock option activity for the year ended December 31, 2017 and December 31, 2016, respectively, is as follows:

	Number of Shares	Weighted Avg. Exercise Price
Balance, January 1, 2016	671,069	$ 0.01
Options granted	1,957,680	1.76
Options exercised	—	—
Options expired	—	—
Outstanding at December 31, 2016	2,628,749	$ 1.31
Options granted	—	—
Options exercised	—	—
Options expired	—	—
Outstanding at December 31, 2017	2,628,749	$ 1.31

Note 6 – Related Party Transactions

Introgen Research Institute

Introgen Research Institute ("IRI") is a Texas-based technology company, currently affiliated with Rodney Varner, our CEO.

In April 2009, prior to Mr. Varner becoming an officer and director of our Company in August 2012, we entered into an Assignment and Collaboration Agreement with IRI, providing us with the exclusive right to commercialize a portfolio of intellectual property. This agreement was amended in 2011 to include additional sublicensing of additional intellectual property made available to IRI from the University of Texas MD Anderson Cancer Center ("UTMDACC").

Confer Capital

Confer Capital, Inc (“Confer Capital”) is a technology commercialization advisory services company affiliated with Ryan Confer, current CFO. From time to time since the Company’s inception, Confer Capital provided strategic, financial, and executive managerial services to the Company when Ryan Confer was not considered a payroll employee. Additionally, Confer Capital has also incurred corporate expenses on our behalf and was reimbursed for these expenses. Mr. Confer provided $65,000 of consulting services to the Company during 2016 while not on Company payroll. These services were booked in account payable when the service period concluded in August 2016 and paid out in December 2016.

Domecq Sebastian, LLC

Domecq-Sebastian LLC (“Domecq”) is an entity affiliated with David Nance, a former director and officer who is now deceased. During December 2017, we entered into a promissory note with Domecq for a total amount of $200,000 that carries a 15% interest rate and is due and payable on or before March 31, 2018.The note carried an 18% interest rate if paid after March 31, 2018.The note was repaid in full on April 11, 2018.

Viet Ly

Viet Ly is a person associated with several investment funds that have invested in the Company since 2013. The Company entered into a consulting agreement with Mr. Ly in October 2016 for strategic financial and social media services. The Company agreed to pay Mr. Ly $7,500 per month for services and paid Mr. Ly a total of $90,000 during 2017.

Note 7 - Commitments and Contingencies

Commitments

We have entered into a clinical trial agreement with the University of Texas MD Anderson Cancer Center to administer a phase I/II clinical trial, combining FUS1-nanoparticles and Erlotinib in Stage IV lung cancer patients. The trial is expected to run through the end of 2018 with a projected total cost of approximately $2 million. Payments are due and payable when invoiced throughout the clinical trial period. The agreement may be terminated at any time.

In 2009, we agreed to assume certain contractual and other obligations of IRI in consideration for the sublicense rights, expertise, and assistance associated with the assignment of certain technologies and intellectual property. We also agreed to pay royalties of one percent (1%) on sales of resulting Licensed Products, for a period of 21 years following the termination of the last of the MD Anderson License Agreement and Sublicense Agreement, to IRI and we assumed patent prosecution costs and an annual minimum royalty of $20,000 payable to the National Institutes of Health (“NIH”).

Our $191,393 payment obligation to the National Institutes of Health (“NIH”) represented a current obligation, of which $15,393 of 2016 patent prosecution costs were paid in the fourth quarter of 2016 and $176,000 was included in Accounts Payable at December 31, 2016 (consisting of accrued annual royalties of $140,000 and patent costs of $36,000). During the first quarter of 2017, we modified the terms of our accrued royalty obligation to NIH. Under the modified agreement, NIH agreed to extinguish $120,000 of the accrued royalties payable to them in consideration for payment by us of (i) accrued patent costs of $36,000, (ii) a royalty payment of $20,000, and (iii) a contingent payment of $240,000, increasing at $20,000 per year starting in 2018, to be paid upon our receipt of FDA approval. The payments for the patent costs of $36,000 and royalties of $20,000 were paid during the second quarter of 2017.

As a result of our modified agreement with the NIH, we have recognized the exchange of the $120,000 fixed obligation for the $240,000 contingent obligation as a $120,000 reduction to intellectual property expense (classified within General and Administrative Expense) during the first quarter of 2017. The $240,000 contingent obligation (and related expense) will be recognized when we obtain regulatory approval (the event that triggers the payment obligation).

Contingencies

From time to time we may become subject to threatened and/or asserted claims arising in the ordinary course of our business. Management is not aware of any matters, either individually or in the aggregate, that are reasonably likely to have a material impact on our Company’s financial condition, results of operations or liquidity.

During October 2017, we received an informal demand from a former financial advisor, claiming that it is entitled to a warrant to purchase shares of common stock equal to three (3) percent of our outstanding shares at December 1, 2015. We believe this asserted claim lacks merit, and we intend to defend the claim vigorously.

Note 8 – Income Taxes

The provision for income taxes differs from the amount computed by applying the statutory federal income tax rate to income before provision for income taxes. The sources and tax effects of the differences are as follows:

Income tax provision at the federal statutory rate	34%
Effect of operating losses	-34%
	0%

At December 31, 2017, the Company has a net operating loss carryforward of approximately $8.0 million for Federal and state purposes. This loss will be available to offset future taxable income. If not used, this carryforward will begin to expire in 2029. The deferred tax asset relating to the operating loss carryforward has been fully reserved at December 31, 2017 and December 31, 2016. The principal differences between the operating loss for income tax purposes and reporting purposes are shares issued for services and share-based compensation and a temporary difference in depreciation expense.

Note 9 – Subsequent Events

Agreements

On March 9, 2018, we entered into a master service agreement with World Wide Holdings LLC dba Invictus Resources. The Company agreed to pay Invictus Resources $85,000 per month for press and investor relations services.

On April 16, 2018, we entered into an executive employment agreement with Chief Executive Officer, Rodney Varner. The Company agrees to pay Mr. Varner an annual base salary of $350,000. Mr. Varner is also eligible for a target bonus to be determined, reviewed, and approved by the board of directors.

On April 16, 2018, we entered into an executive employment agreement with Chief Financial Officer, Ryan Confer. The Company agrees to pay Mr. Confer an annual base salary of $240,000. Mr. Confer is also eligible for a target bonus to be determined, reviewed, and approved by the board of directors.

Promissory Notes

On March 9, 2018, we entered into a promissory note with Viet Ly for a total amount of $25,000 that carries a 10% interest rate and is due and payable on or before June 9, 2018.This note was repaid in full on April 6, 2018.

On March 28, 2018, we entered into a promissory note with Rodney Varner, Trustee, for a total amount of $45,000 that carries a 10% interest rate and is due and payable on or the earlier of (i) five days after funding of the Company's initial public offering, or (ii) April 30, 2018. This note was repaid in full on April 5, 2018.

Initial Public Offering

On April 3, 2018, the Company completed its IPO, whereby the Company sold an aggregate of 1,280,000 shares of its common stock, at $5.00 per share, resulting in estimated net proceeds of $5,025,000 after underwriting discounts, commissions and estimated offering expenses of $895,000.

2018 Equity Incentive Plan

The Company's board of directors and stockholders has approved and adopted the Company's 2018 Equity Incentive Plan (the 2018 Plan), which became effective on the completion of the IPO on April 3, 2018. The 2018 Plan provides for the grant of incentive stock options (ISOs), nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance-based stock awards, other forms of equity compensation and performance cash awards. ISOs may be granted only to employees. All other awards may be granted to employees, including officers, and to the Company's non-employee directors and consultants, and affiliates.

A total of 4,160,000 shares of Common Stock are available under the 2018 Plan, which includes 554,963 shares of Common Stock reserved for issuance under the 2009 Plan that were added to 2018 Plan. No further grants will be made under the 2009 Plan and any shares subject to outstanding stock options under the 2009 Plan that would otherwise be returned to the 2009 Plan will instead be added to the shares initially reserved under the 2018 Plan.

In addition, the number of shares of common stock reserved for issuance under the 2018 Plan will automatically increase on January 1 of each year, beginning on January 1, 2019 by 5% of the total number of shares of the Company's Common Stock outstanding on December 31 of the preceding calendar year, or a lesser number of shares determined by the Administrator.

2018 Employee Stock Purchase Plan

The Company's board of directors and stockholders has approved and adopted the Company's 2018 Employee Stock Purchase Plan (the ESPP), which became effective on the completion of the IPO on April 3, 2018. The ESPP authorizes the issuance of 208,500 shares of the Company's common stock pursuant to purchase rights granted to our eligible employees. The number of shares of common stock reserved for issuance will automatically increase on January 1 of each calendar year, from January 1, 2019 by the lesser of 2% of the total number of shares of our common stock outstanding on December 31 of the preceding calendar year or a number determined by the Company's Administrator.

EXHIBIT INDEX

Exhibit Number	Description of Exhibit
3.1	Amended and Restated Certificate of Incorporation of the Registrant, incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K filed on April 10, 2018.
3.2	Amended and Restated Bylaws of the Registrant, incorporated by reference to Exhibit 3.2 of the Registrant's Current Report on Form 8-K filed on April 10, 2018.
4.1	Form of Common Stock Certificate of the Registrant, incorporated by reference to Exhibit 4.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
4.2	Texas Emerging Technology Fund Award and Security Agreement dated August 13, 2010 by and between the Registrant and The State of Texas, incorporated by reference to Exhibit 4.2 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386, as amended, originally filed on July 21, 2017.
4.3	Investment Unit, dated August 13, 2010, issued to the State of Texas, incorporated by reference to Exhibit 4.3 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
4.4	Warrant Agreement, dated December 17, 2015, issued to DABS Advanced Biotech Solutions, LLC, incorporated by reference to Exhibit 4.4 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
4.5	Warrant Agreement, dated December 17, 2015, issued to DABS Advanced Biotech Solutions, LLC, incorporated by reference to Exhibit 4.5 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
4.6	Warrant Agreement, dated November 3, 2016, issued to Viet Ly, incorporated by reference to Exhibit 4.6 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
4.7	Form of Underwriter's Warrant Agreement, incorporated by reference to Exhibit 4.7 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
10.1+	Form of Indemnity Agreement by and between the Registrant and its directors and officers, incorporated by reference to Exhibit 10.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
10.2+	Registrant's 2009 Equity Incentive Plan and Forms of Grant Notices and Agreements thereunder, incorporated by reference to Exhibit 10.2 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
10.3*+	Genprex, Inc. 2018 Equity Incentive Plan and Forms of Stock Option Grant Notice, Option Agreement and Notice of Exercise thereunder.
10.4*+	Genprex, Inc. 2018 Employee Stock Purchase Plan.
10.5+	Genprex, Inc. Non-Employee Director Compensation Policy, incorporated by reference to Exhibit 10.5 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
10.6	Patent and Technology License Agreement dated effective July 20, 1994, by and between the Board of Regents of the University of Texas System, The University of Texas M.D. Anderson Cancer Center and Intron Therapeutics, Inc., incorporated by reference to Exhibit 10.6 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
10.7	Amendment No. 3 to Patent and Technology License Agreement dated October 4, 2001, incorporated by reference to Exhibit 10.7 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
10.8	Technology Sublicense Agreement effective March 7, 2007, by and between Introgen Therapeutics, Inc., and Introgen Research Institute, Inc., incorporated by reference to Exhibit 10.8 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
10.9	Assignment and Collaboration Agreement effective April 13, 2009, by and between Gensolve, Inc. and the Registrant, incorporated by reference to Exhibit 10.9 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.

Exhibit Number	Description of Exhibit
10.10	Technology License Agreement dated as of February 26, 2010, by and between Introgen Research Institute, Inc. and P53, Inc., incorporated by reference to Exhibit 10.10 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
10.11	Technology Sublicense Agreement effective June 1, 2011, by and between the Registrant and Introgen Research Institute, Inc., incorporated by reference to Exhibit 10.12 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
10.12	Amended Collaboration and Assignment Agreement effective July 1, 2011, by and between Introgen Research Institute, Inc. and the Registrant, incorporated by reference to Exhibit 10.13 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
10.13	Clinical Study Agreement dated February 10, 2014, by and between The University of Texas M.D. Anderson Cancer Center and the Registrant, incorporated by reference to Exhibit 10.14 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
10.14	Amendment No. 1 to Clinical Study Agreement dated June 25, 2015, incorporated by reference to Exhibit 10.15 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
10.15+	Employment agreement, dated October 23, 2016, by and between the Registrant and Julien L. Pham, M.D., M.P.H., incorporated by reference to Exhibit 10.16 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
10.16*+	Executive Employment Agreement dated April 13, 2018, by and between the Registrant and Rodney Varner.
10.17*+	Executive Employment Agreement dated April 13, 2018, by and between the Registrant and Ryan Confer.
10.18	Master Service Agreement dated March 9, 2018, by and between the Registrant and World Wide Holdings, LLC d/b/a Invictus Resources, incorporated by reference to Exhibit 10.22 of the Registrant's Registration Statement on Form S-1 (File No. 333-219386), as amended, originally filed on July 21, 2017.
31.1*	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	XBRL Instance document.
101.SCH*	XBRL Taxonomy Extension Schema Document.
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Document

* Filed herewith.
\+ Indicates management contract or compensatory plan.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this annual report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized**.**

GENPREX, INC.

Date: April 17, 2018

By: /s/ J. Rodney Varner
J. Rodney Varner
Chief Executive Officer
(Principal Executive Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints J. Rodney Varner and Ryan M. Confer as his or her true and lawful attorneys-in-fact, each with full power of substitution, for him or her in any and all capacities, to sign any amendments to this Annual Report on Form 10-K and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact or their substitute or substitutes may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this report has been signed below by the following persons on behalf of the registrant in the capacities and on the dates indicated.

Signature	Title	Date
/s/ J. Rodney Varner **J. Rodney Varner**	Chief Executive Officer and Member of the Board of Directors *(Principal Executive Officer)*	April 17, 2018
/s/ Ryan M. Confer **Ryan M. Confer**	Chief Financial Officer *(Principal Financial and Accounting Officer)*	April 17, 2018
/s/ David E. Friedman **David E. Friedman**	Member of the Board of Directors	April 17, 2018
/s/ Robert W. Pearson **Robert W. Pearson**	Member of the Board of Directors	April 17, 2018

Exhibit 10.3

GENPREX, INC.

2018 EQUITY INCENTIVE PLAN

1. Purposes of the Plan.

The purposes of this Plan are to attract and retain personnel for positions with the Company, to provide additional incentive to Employees, Directors, and Consultants (collectively, "Service Providers"), and to promote the success of the Company's business.

The Plan permits the grant of Incentive Stock Options to Employees and the grant of Nonstatutory Stock Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Shares, Performance Stock Units, and Performance Awards to any Service Provider.

2. Shares Subject to the Plan.

(a) Allocation of Shares to Plan. The maximum aggregate number of Shares that may be issued under the Plan is:

(i) 4,160,000 Shares, plus

(ii) a number of Shares equal to the number of shares of common stock of the Company subject to outstanding awards granted under the Genprex, Inc. 2009 Stock Plan that, after the Registration Date, expire or otherwise terminate without having been exercised in full and a number of Shares equal to the number of Shares of common stock of the Company issued under awards granted under the Genprex, Inc. 2009 Stock Plan that, after the Registration Date, are forfeited to the Company, tendered to or withheld by the Company for payment of an exercise price or for tax withholding, or repurchased by the Company due to failure to vest, with the maximum number of Shares that may be added to the Plan under this Section 2(a)(i) being equal to 2,628,749 Shares, plus

(iii) any additional Shares that become available for issuance under the Plan under Sections 2(b) and 2(c). The Shares may be authorized but unissued Common Stock or Common Stock issued and then reacquired by the Company.

(b) Automatic Share Reserve Increase. The number of Shares available for issuance under the Plan will be increased on the first day of each Fiscal Year beginning with the 2019 Fiscal Year, in an amount equal to the lesser of:

(i) 5% of the total number of shares of all classes of the Company's common stock outstanding on the last day of the immediately preceding Fiscal Year, and

(ii) a lower number of Shares determined by the Administrator.

(c) Lapsed Awards.

(i) *Options and Stock Appreciation Rights*. If an Option or Stock Appreciation Right expires or becomes unexercisable without having been exercised in full or is surrendered under an Exchange Program, the unissued Shares subject to the Option or Stock Appreciation Right will become available for future issuance under the Plan.

(ii) *Stock Appreciation Rights*. Only Shares actually issued pursuant to a Stock Appreciation Right (i.e., the net Shares issued) will cease to be available under the Plan; all remaining Shares originally subject to the Stock Appreciation Right will remain available for future issuance under the Plan.

(iii) *Full-Value Awards*. Shares issued pursuant to Awards of Restricted Stock, Restricted Stock Units, Performance Shares, Performance Stock Units or stock-settled Performance Awards that are reacquired by the Company due to failure to vest or are forfeited to the Company will become available for future issuance under the Plan.

(iv) *Withheld Shares*. Shares used to pay the Exercise Price of an Award or to satisfy tax withholding obligations related to an Award will become available for future issuance under the Plan.

(v) *Cash-Settled Awards*. If any portion of an Award under the Plan is paid to a Participant in cash rather than Shares, that cash payment will not reduce the number of Shares available for issuance under the Plan.

(d) Incentive Stock Options. The maximum number of Shares that may be issued upon the exercise of Incentive Stock Options will equal 200% of the aggregate Share number stated in Section 2(a) plus, to the extent allowable under Code Section 422, any Shares that become available for issuance under the Plan under Sections 2(b) and 2(c).

(e) Adjustment. The numbers provided in Sections 2(a), 2(b), and 2(d) will be adjusted as a result of changes in capitalization referred to in Section 13.

(f) Substitute Awards. If the Committee grants Awards in substitution for equity compensation awards outstanding under a plan maintained by an entity acquired by or consolidated with the Company, the grant of those substitute Awards will not decrease the number of Shares available for issuance under the Plan.

3. Administration of the Plan.

(a) Procedure.

(i) *General*. The Plan will be administered by the Board or a Committee (the "Administrator"). Different Administrators may administer the Plan with respect to different groups of Service Providers. The Board may retain the authority to concurrently administer the Plan with a Committee and may revoke the delegation of some or all authority previously delegated.

(ii) *Further Delegation*. To the extent permitted by Applicable Laws, the Board or a Committee may delegate to 1 or more Officers the authority to grant Awards to Employees of the Company or any of its Subsidiaries who are not Officers, provided that the delegation must specify any limitations on the authority required by Applicable Laws, including the total number of Shares that may be subject to the Awards granted by such Officer(s). Such delegation may be revoked at any time by the Board or Committee. Any such Awards will be granted on the form of Award Agreement most recently approved for use by the Board or a

Committee made up solely of Directors, unless the resolutions delegating the authority permit the Officer(s) to use a different form of Award Agreement approved by the Board or a Committee made up solely of Directors.

(iii) *Section 162(m)*. When necessary or desirable for an Award to qualify as "performance-based compensation" under Section 162(m) of the Code, the Committee shall include at least two persons who are "outside directors" (as defined under Section 162(m) of the Code) and at least two (or a majority if more than two then serve on the Committee) such "outside directors" shall approve the grant of such Award and determine (as applicable) the Performance Period and any Performance Factors upon which vesting or settlement of any portion of such Award is to be subject no later than the earlier of (a) the date 90 days after the commencement of the applicable Performance Period, and (b) the date on which 25% of the Performance Period has elapsed, and in any event at a time when the achievement of the applicable Performance Factors remains substantially uncertain. When required by Section 162(m) of the Code, prior to settlement of any such Award at least two (or a majority if more than two then serve on the Committee) such "outside directors" then serving on the Committee shall determine and certify in writing the extent to which such Performance Factors have been timely achieved and the extent to which the Shares subject to such Award have thereby been earned. Awards granted to Participants who are subject to Section 16 of the Exchange Act must be approved by two or more "non-employee directors" (as defined in the regulations promulgated under Section 16 of the Exchange Act). With respect to Participants whose compensation is subject to Section 162(m) of the Code, and provided that such adjustments are consistent with the regulations promulgated under Section 162(m) of the Code, the Committee may adjust the performance goals to account for changes in law and accounting and to make such adjustments as the Committee deems necessary or appropriate to reflect the impact of extraordinary or unusual items, events or circumstances to avoid windfalls or hardships, including without limitation (i) restructurings, discontinued operations, extraordinary items, and other unusual or non-recurring charges, (ii) an event either not directly related to the operations of the Company or not within the reasonable control of the Company's management, or (iii) a change in accounting standards required by generally accepted accounting principles. No Participant will be eligible to receive more than 1,175,000 (25% of Share Reserve Shares) in any calendar year under this Plan pursuant to the grant of Awards except that new Employees of the Company or a member of the Company Group (including new Employees who are also officers and directors of the Company or a member of the Company Group) are eligible to receive up to a maximum of 2,350,000 (50% of Share Reserve Shares) in the calendar year in which they commence their employment, and no Participant shall be granted a cash settled award with a value greater than $2,000,000.

(b) Powers of the Administrator. Subject to the terms of the Plan, any limitations on delegations specified by the Board, and any requirements imposed by Applicable Laws, the Administrator will have the authority, in its sole discretion, to make any determinations and perform any actions deemed necessary or advisable to administer the Plan including:

(i) to determine the Fair Market Value;

(ii) to approve forms of Award Agreements for use under the Plan (provided that all forms of Award Agreement must be approved by the Board or the Committee of Directors acting as the Administrator);

(iii) to select the Service Providers to whom Awards may be granted and grant Awards to such Service Providers;

(iv) to determine the number of Shares to be covered by each Award granted;

(v) to determine the terms and conditions, consistent with the Plan, of any Award granted. Such terms and conditions may include, but are not limited to, the Exercise Price, the time(s) when Awards may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions, and any restriction or limitation regarding any Award or the Shares relating to an Award;

(vi) to institute and determine the terms and conditions of an Exchange Program;

(vii) to interpret the Plan and make any decisions necessary to administer the Plan;

(viii) to establish, amend and rescind rules relating to the Plan, including rules relating to sub-plans established to satisfy laws of jurisdictions other than the United States or to qualify Awards for favorable tax treatment under laws of jurisdictions other than the United States;

(ix) to interpret, modify or amend each Award (subject to Section 18), including extending the Expiration Date and the post-termination exercisability period of such modified or amended Awards;

(x) to allow Participants to satisfy tax withholding obligations in any manner permitted by Section 15;

(xi) to delegate ministerial duties to any of the Company's employees;

(xii) to authorize any person to take any steps and execute, on behalf of the Company, any documents required for an Award previously granted by the Administrator to be effective; and

(xiii) to allow Participants to defer the receipt of the payment of cash or the delivery of Shares otherwise due to any such Participants under an Award.

(c) Termination of Status.

(i) Unless a Participant is on a leave of absence approved by the Company as set forth in Section 11, the Participant's status as a Service Provider will end at midnight at the end of the last day the Participant actively provides services for a member of the Company Group (the "Termination of Status Date"). The Administrator has the sole discretion to determine

the date on which a Participant stops actively providing services and whether a Participant may still be considered to be providing services while on a leave of absence and the Administrator may delegate this decision, other than with respect to Officers, to the Company's senior human resources officer.

(ii) This termination of status as a Service Provider will occur regardless of the reason for such termination even if the termination is later found to be invalid, in breach of employment laws in the jurisdiction where Participant is providing services, or in violation of the terms of Participant's employment or service agreement, if any such agreement exists.

(iii) Unless otherwise expressly provided in an Award Agreement or otherwise determined by the Administrator, a Participant's right to vest in any Award under the Plan will cease as of the Termination of Status Date and will not be extended by any notice period, whether arising under contract, statute or common law, including any period of "garden leave" or similar period mandated under employment laws in the jurisdiction where the Participant is providing services.

(d) Grant Date. The grant date of an Award ("Grant Date") will be the date that the Administrator makes the determination granting such Award or may be a later date if such later date is designated by the Administrator on the date of the determination or under an automatic grant policy. Notice of the determination will be provided to each Participant within a reasonable time after the Grant Date.

(e) Waiver. The Administrator may waive any terms, conditions or restrictions.

(f) Fractional Shares. Except as otherwise provided by the Administrator, any fractional Shares that result from the adjustment of Awards will be canceled. Any fractional Shares that result from vesting percentages will be accumulated and vested on the date that an accumulated full Share is vested.

(g) Electronic Delivery. The Company may deliver by e-mail or other electronic means (including posting on a website maintained by the Company or by a third party under contract with the Company or another member of the Company Group) all documents relating to the Plan or any Award and all other documents that the Company is required to deliver to its security holders (including prospectuses, annual reports and proxy statements).

(h) Choice of Law; Choice of Forum. The Plan, all Awards and all determinations made and actions taken under the Plan, to the extent not otherwise governed by the laws of the United States, will be governed by the laws of the State of Delaware without giving effect to principles of conflicts of law. For purposes of litigating any dispute that arises under this Plan, a Participant's acceptance of an Award is his or her consent to the jurisdiction of the State of Delaware, and agreement that any such litigation will be conducted in Delaware Court of Chancery, or the federal courts for the United States for the District of Delaware, and no other courts, regardless of where a Participant's services are performed.

(i) Effect of Administrator's Decision. The Administrator's decisions, determinations and interpretations will be final and binding on all Participants and any other holders of Awards.

4. Stock Options.

(a) Stock Option Award Agreement. Each Option will be evidenced by an Award Agreement that will specify the number of Shares subject to the Option, its per share exercise price ("Exercise Price"), its Expiration Date, and such other terms and conditions as the Administrator determines. Each Option will be designated in the Award Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. An Option not designated as an Incentive Stock Option is a Nonstatutory Stock Option.

(b) Exercise Price. The Exercise Price for the Shares to be issued upon exercise of an Option will be determined by the Administrator.

(c) Form of Consideration. The Administrator will determine the acceptable forms of consideration for exercising an Option and those forms of consideration will be described in the Award Agreement. The consideration may consist of any combination of the following, to the extent permitted by Applicable Laws:

(i) cash;

(ii) check or wire transfer;

(iii) promissory note;

(iv) other Shares that have a fair market value on the date of surrender equal to the aggregate Exercise Price of the Shares as to which such Option will be exercised. To the extent not prohibited by the Administrator, this shall include the ability to tender Shares to exercise the Option and then use the Shares received on exercise to exercise the Option with respect to additional Shares;

(v) consideration received by the Company under a cashless exercise arrangement (whether through a broker or otherwise) implemented by the Company for the exercise of Options that has been approved by the Board or a Committee of Directors;

(vi) consideration received by the Company under a net exercise program under which Shares are withheld from otherwise deliverable Shares that has been approved by the Board or a Committee of Directors; and

(vii) any other consideration or method of payment to issue Shares (provided that other forms of considerations may only be approved by the Board or a Committee of Directors).

(d) Incentive Stock Option Limitations.

(i) The Exercise Price of an Incentive Stock Option may not be less than 100% of the Fair Market Value on the Grant Date.

(ii) To the extent that the aggregate fair market value of the shares with respect to which incentive stock options under Code Section 422(b) are exercisable for the first

time by a Participant during any calendar year (under all plans and agreements of the Company Group) exceeds $100,000, the incentive stock options whose value exceeds $100,000 will be treated as nonstatutory stock options. Incentive stock options will be considered in the order in which they were granted. For this purpose the fair market value of the shares subject to an option will be determined as of the grant date of each option.

(iii) The Expiration Date of an Incentive Stock Option will be the day prior to the 10th anniversary of the Grant Date or any earlier date provided in the Award Agreement, subject to clause (iv) below.

(iv) The following rules apply to Incentive Stock Options granted to Participants who own stock representing more than 10% of the total combined voting power of all classes of stock of the Company or any Parent or Subsidiary of the Company:

(1) the Expiration Date of the Incentive Stock Option may not be after the day prior to the 5th anniversary of the Grant Date; and

(2) the Exercise Price may not be less than 110% of the Fair Market Value on the Grant Date.

If an Option is designated in the Administrator action that granted it as an Incentive Stock Option but the terms of the Option do not comply with Sections 4(d)(iv)(1) and 4(d)(iv)(2), then the Option will not qualify as an Incentive Stock Option. All Options granted under the Plan are Nonstatutory Stock Options unless specifically designated as Incentive Stock Options in the Award Agreement pursuant to which such Options are granted.

(e) Exercise of Option. An Option is exercised when the Company receives: (i) a notice of exercise (in such form as the Administrator may specify from time to time) from the person entitled to exercise the Option and (ii) full payment for the Shares with respect to which the Option is exercised (together with applicable withholding taxes). Shares issued upon exercise of an Option will be issued in the name of the Participant. Until the Shares are issued (as evidenced by the entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to an Option, despite the exercise of the Option. The Company will issue (or cause to be issued) such Shares promptly after the Option is exercised. An Option may not be exercised for a fraction of a Share. Exercising an Option in any manner will decrease the number of Shares thereafter available, both for purposes of the Plan and for purchase under the Option, by the number of Shares as to which the Option is exercised.

(f) Expiration of Options. Subject to Section 4(d), an Option's Expiration Date will be set forth in the Award Agreement. An Option may expire before its expiration date under Sections 14 or 16(b) or under the Award Agreement.

(g) Tolling of Expiration. If exercising an Option prior to its expiration is not permitted because of Applicable Laws, other than the rules of any stock exchange or quotation system on which the Common Stock is listed or quoted, the Option will remain exercisable until 30 days after the first date on which exercise would no longer be prevented by such provisions. If this would result in the Option remaining exercisable past its Expiration Date, then it will remain

exercisable only until the end of the later of (x) the first day on which its exercise would not be prevented by Section 19(a) and (y) its Expiration Date.

5. Restricted Stock.

(a) Restricted Stock Award Agreement. Each Award of Restricted Stock will be evidenced by an Award Agreement that will specify the Period of Restriction (if any), the number of Shares granted, and such other terms and conditions as the Administrator determines. Unless the Administrator determines otherwise, Shares of Restricted Stock will be held in escrow until the end of the Period of Restriction applicable to such Shares. All grants of Restricted Stock and interpretative decisions about Restricted Stock may only be made by the Administrator.

(b) Restrictions:

(i) Except as provided in this Section 5 or the Award Agreement, Shares of Restricted Stock may not be sold, transferred, pledged, assigned, or otherwise alienated until the end of the Period of Restriction applicable to such Shares.

(ii) During the Period of Restriction, Service Providers holding Shares of Restricted Stock may exercise full voting rights with respect to those Shares, unless the Administrator determines otherwise.

(iii) During the Period of Restriction, Service Providers holding Shares of Restricted Stock will not be entitled to receive dividends and other distributions paid with respect to such Shares, unless the Administrator provides otherwise. If the Administrator provides that dividends and distributions will be received and any such dividends or distributions are paid in cash they will be subject to the same provisions regarding forfeitability as the Shares of Restricted Stock with respect to which they were paid and if such dividend or distributions are paid in Shares, the Shares will be subject to the same restrictions on transferability and forfeitability as the Shares of Restricted Stock with respect to which they were paid and, unless the Administrator determines otherwise, the Company will hold such Shares until the restrictions on the Shares of Restricted Stock with respect to which they were paid have lapsed.

(iv) Except as otherwise provided in this Section 5 or an Award Agreement, Shares of Restricted Stock covered by each Restricted Stock Award made under the Plan will be released from escrow when practicable after the last day of the applicable Period of Restriction.

(v) The Administrator may impose, prior to grant, or remove any restrictions on Shares of Restricted Stock.

6. Restricted Stock Units.

(a) Restricted Stock Unit Award Agreement. Each Award of Restricted Stock Units will be evidenced by an Award Agreement that will specify the terms, conditions, and restrictions related to the grant, including the number of Restricted Stock Units.

(b) Vesting Criteria and Other Terms. The Administrator will set vesting criteria that, depending on the extent to which the criteria are met, will determine the number of Restricted

Stock Units paid out to the Participant. The Administrator may set vesting criteria based upon the achievement of Company-wide, divisional, business unit, or individual goals (that may include continued employment or service) or any other basis determined by the Administrator in its sole discretion.

(c) Earning Restricted Stock Units. Upon meeting the applicable vesting criteria, the Participant will have earned the Restricted Stock Units and will be paid as determined in Section 6(d). The Administrator may reduce or waive any criteria that must be met to earn the Restricted Stock Units.

(d) Form and Timing of Payment. Payment of earned Restricted Stock Units will be made when practicable after the date set forth in the Award Agreement and determined by the Administrator. The Administrator may settle earned Restricted Stock Units in cash, Shares, or a combination of both.

7. Stock Appreciation Rights.

(a) Stock Appreciation Right Award Agreement. Each Stock Appreciation Right grant will be evidenced by an Award Agreement that will specify the Exercise Price (which may not be less than 100% of Fair Market Value on the Grant Date), its Expiration Date, the conditions of exercise, and such other terms and conditions as the Administrator determines.

(b) Payment of Stock Appreciation Right Amount. When a Participant exercises a Stock Appreciation Right, he or she will be entitled to receive a payment from the Company equal to:

(i) the difference between the Fair Market Value on the date of exercise and the Exercise Price multiplied by

(ii) the number of Shares with respect to which the Stock Appreciation Right is exercised.

Payment upon Stock Appreciation Right exercise may be made in cash, in Shares of equivalent value, or any combination of cash and Shares, with the determination of form of payment made by the Administrator. Shares issued upon exercise of a Stock Appreciation Right will be issued in the name of the Participant. Until Shares are issued (as evidenced by the entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to a Stock Appreciation Right, despite the exercise of the Stock Appreciation Right. The Company will issue (or cause to be issued) such Shares promptly after the Stock Appreciation Right is exercised. A Stock Appreciation Right may not be exercised for a fraction of a Share.

Exercising a Stock Appreciation Right in any manner will decrease (x) the number of Shares thereafter available under the Stock Appreciation Right by the number of Shares as to which the Stock Appreciation Right is exercised and (y) the number of Shares thereafter available under the Plan by the number of Shares issued upon such exercise.

(c) Expiration of Stock Appreciation Rights. A Stock Appreciation Right's Expiration Date will be set forth in the Award Agreement. A Stock Appreciation Right may expire before its expiration date under Sections 14 or 16(b) or under the Award Agreement.

(d) Tolling of Expiration. If exercising an Stock Appreciation Right prior to its expiration is not permitted because of Applicable Laws, other than the rules of any stock exchange or quotation system on which the Common Stock is listed or quoted, the Stock Appreciation Right will remain exercisable until 30 days after the first date on which exercise would no longer be prevented by such provisions. If this would result in the Stock Appreciation Right remaining exercisable past its Expiration Date, then it will remain exercisable only until the end of the later of (x) the first day on which its exercise would not be prevented by Section 19(a) and (y) its Expiration Date.

8. Performance Stock Units and Performance Shares.

(a) Award Agreement. Each Award of Performance Stock Units/Shares will be evidenced by an Award Agreement that will specify the time period during which the performance objectives or other vesting provisions will be measured which shall not exceed 5 years ("Performance Period") and the material terms of the Award. The Administrator may set performance objectives based upon the achievement of Company-wide, divisional, business unit or individual goals (including, but not limited to, continued employment or service) or any other basis determined by the Administrator.

(b) Value of Performance Stock Units/Shares. Each Performance Stock Unit will have an initial value established by the Administrator on or before the Grant Date. Each Performance Share will have an initial value equal to the Fair Market Value on the Grant Date.

(c) Performance Objectives and Other Terms. The Administrator will set performance objectives or other vesting provisions (that may include continued employment or service). These objectives or vesting provisions may determine the number or value of Performance Stock Units/Shares paid out.

(d) Earning of Performance Stock Units/Shares. After an applicable Performance Period has ended, the holder of Performance Stock Units/Shares will be entitled to receive a payout of the number of Performance Stock Units/Shares earned by the Participant over the Performance Period. The Administrator may reduce or waive any performance objectives or other vesting provisions for such Performance Stock Unit/Share.

(e) Payment of Performance Stock Units/Shares. Payment of earned Performance Stock Units/Shares will be made when practicable after the end of the applicable Performance Period. Payment with respect to earned Performance Stock Units/Shares may be made in cash, in Shares of equivalent value, or any combination of cash and Shares, with the determination of form of payment made by the Administrator.

9. Performance Awards.

(a) Award Agreement. Each Performance Award will be evidenced by an Award Agreement that will specify the Performance Period and the material terms of the Award. The

Administrator may set performance objectives based upon the achievement of Company-wide, divisional, business unit or individual goals (including, but not limited to, continued employment or service) or any other basis determined by the Administrator.

(b) Value of Performance Awards. Each Performance Award's threshold, target, and maximum payout values will be established by the Administrator on or before the Grant Date.

(c) Performance Objectives and Other Terms. The Administrator will set performance objectives or other vesting provisions (that may include continued employment or service). These objectives or vesting provisions will determine the value of the payout for the Performance Awards.

(d) Earning of Performance Awards. After an applicable Performance Period has ended, the holder of a Performance Award will be entitled to receive a payout for the Performance Award earned by the Participant over the Performance Period. The Administrator may reduce or waive any performance objectives or other vesting provisions for such Performance Award.

(e) Payment of Performance Awards. Payment of earned Performance Awards will be made when practicable after the end of the applicable Performance Period. Payment with respect to earned Performance Awards will be made in cash, in Shares of equivalent value, or any combination of cash and Shares, with the determination of form of payment made by the Administrator at the time of payment.

10. Outside Director Limitations.

No Outside Director may be granted, in any Fiscal Year, Awards with a grant date fair value (determined under U.S. generally accepted accounting principles) of more than $1,000,000, increased to $2,000,000 in connection with his or her initial service as an Outside Director. Awards granted to an individual while he or she was an Employee, or while he or she was a Consultant but not an Outside Director, will not count for purpose of this limitation.

11. Leaves of Absence/Transfer Between Locations/Change of Status.

(a) General. Unless otherwise provided by the Administrator, a Participant will not cease to be an Employee in the case of (i) any leave of absence approved by the Company or other member of the Company Group employing such Employee or (ii) any transfer between locations of the Company or members of the Company Group.

(b) Vesting. Unless a leave policy approved by the Administrator provides otherwise or it is otherwise required by Applicable Law, vesting of Awards granted under the Plan will continue only for Participants on an approved leave of absence.

(c) Incentive Stock Option Status. If a Participant's leave of absence approved by the Company or other member of the Company Group employing such Employee exceeds 3 months and reemployment upon expiration of such leave is not guaranteed by statute or contract, then 3 months following the 1st day of such leave the Participant will no longer be an employee for incentive stock option purposes. If reemployment upon expiration of such leave of absence is not

guaranteed by statute or contract, then 6 months following the 1st day of such leave any Incentive Stock Option held by the Participant will cease to be treated as an Incentive Stock Option and will be treated for tax purposes as a Nonstatutory Stock Option.

(d) Protected Leaves.

(i) Any leave of absence by a Participant will be subject to any Applicable Laws that apply to leaves of absence.

(ii) For a Participant on a military leave, if required by Applicable Laws, vesting will continue for the longest period that vesting continues under any other statutory or Company-approved leave of absence. When a Participant returns from military leave (under conditions that would entitle him or her to such protection under the Uniformed Services Employment and Reemployment Rights Act), the Participant will be given vesting credit to the same extent as if the Participant had continued to provide services to the Company or other member of the Company Group, as applicable, through the military leave.

(e) Changes in Status. If a Participant who is an Employee has a reduction in hours worked, the Administrator may unilaterally:

(i) make a corresponding reduction in the number of Shares or cash amount subject to any portion of an Award that is scheduled to vest or become payable after the date of such extend leave or reduction in hours; and

(ii) in lieu of or in combination with such a reduction, extend the vesting or payment schedule applicable to such Award.

If any such reduction occurs, the Participant will have no right to any portion of the Award that is reduced.

(f) Determinations. The effect of a Company-approved leave of absence, a transfer, or a Participant's reduction in hours of employment or service on the vesting of an Award shall be determined, under policies reviewed by the Administrator, by the Company's senior human resources officer or other person performing that function or, with respect to Directors or Officers by the Compensation Committee of the Board, and any such determination will be final.

12. Transferability of Awards.

(a) General Rule. Unless determined otherwise by the Administrator, or otherwise required by Applicable Laws, an Award may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the Participant, only by the Participant. If the Administrator makes an Award transferable, the Award will be limited by any additional terms and conditions imposed by the Administrator. Any unauthorized transfer of an Award will be void.

(b) Domestic Relations Orders. If approved by the Administrator, an Award may be transferred under a domestic relations order, official marital settlement agreement or other

divorce or separation instrument as permitted by Treasury Regulations Section 1.421-1(b)(2). An Incentive Stock Option may be converted into a Nonstatutory Stock Option as a result of such transfer.

(c) Limited Transfers for the Benefit of Family Members. The Administrator may permit an Award or Share issued under this Plan to be assigned or transferred subject to the applicable limitations, set forth in the General Instructions to Form S-8 Registration Statement under the Securities Act, if applicable, and any other Applicable Laws.

(d) Permitted Transferees. Any individual or entity to whom an Award is transferred will be subject to all of the terms and conditions applicable to the Participant who transferred the Award, including the terms and conditions in this Plan and the Award Agreement. If an Award is unvested then the service of the Participant will continue to determine whether the Award will vest and any Expiration Date.

13. Adjustments; Dissolution or Liquidation.

(a) Adjustments. If any extraordinary dividend or other extraordinary distribution (whether in cash, Shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Shares or other securities of the Company, issuance of warrants or other rights to acquire securities of the Company, other change in the corporate structure of the Company affecting the Shares, or any similar equity restructuring transaction, as that term is used in Statement of Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any of its successors) affecting the Shares occurs (including, without limitation, a Change in Control), the Administrator, to prevent diminution or enlargement of the benefits or potential benefits intended to be provided under the Plan, will adjust the number and class of shares that may be delivered under the Plan and/or the number, class, and price of shares covered by each outstanding Award, and the numerical Share limits in Section 2 in such a manner as it deems equitable. Notwithstanding the foregoing, the conversion of any convertible securities of the Company and ordinary course repurchases of shares or other securities of the Company will not be treated as an event that will require adjustment.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Administrator will notify each Participant when practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, an Award will terminate immediately prior to the consummation of such proposed action.

14. Change in Control.

(a) Administrator Discretion. If a Change in Control or a merger of the Company with or into another corporation or other entity occurs, each outstanding Award will be treated as the Administrator determines, including, without limitation, that such Award be continued by the successor corporation or a Parent or Subsidiary of the successor corporation.

(b) Identical Treatment Not Required. The Administrator need not take the same action or actions with respect to all Awards or portions thereof or with respect to all Participants.

The Administrator may take different actions with respect to the vested and unvested portions of an Award. The Administrator will not be required to treat all Awards similarly in the transaction.

(c) Continuation. An Award will be considered continued if, following the Change in Control or merger:

(i) the Award confers the right to purchase or receive, for each Share subject to the Award immediately prior to the transaction, the consideration (whether stock, cash, or other securities or property) received in the transaction by holders of Shares for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration received by the holders of a majority of the outstanding Shares); provided that if the consideration received in the transaction is not solely common stock of the successor corporation or its Parent, the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon exercising an Option or Stock Appreciation Right or upon the payout of a Restricted Stock Unit, Performance Stock Unit, Performance Share or Performance Award, for each Share subject to such Award, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of Common Stock in the transaction; or

(ii) the Award is terminated in exchange for an amount of cash and/or property, if any, equal to the amount that would have been attained upon the exercise of such Award or realization of the Participant's rights as of the date of the occurrence of the transaction. Any such cash or property may be subjected to any escrow applicable to holders of Common Stock in the Change of Control. If as of the date of the occurrence of the transaction the Administrator determines that no amount would have been attained upon the exercise of such Award or realization of the Participant's rights, then such Award may be terminated by the Company without payment. The amount of cash or property can be subjected to vesting and paid to the Participant over the original vesting schedule of the Award.

(iii) Notwithstanding anything in this Section 14(c) to the contrary, an Award that vests, is earned or paid-out upon the satisfaction of one or more performance goals will not be considered assumed if the Company or its successor modifies any of such performance goals without the Participant's consent; provided, however, a modification to such performance goals only to reflect the successor corporation's post-transaction corporate structure will not invalidate an otherwise valid Award assumption.

(d) The Administrator will have authority to modify Awards in connection with a Change in Control or merger:

(i) in a manner that causes them to lose their tax-preferred status,

(ii) to terminate any right a Participant has to exercise an Option prior to vesting in the Shares subject to the Option (i.e., "early exercise"), so that following the closing of the transaction the Option may only be exercised to the extent it is vested;

(iii) to reduce the Exercise Price subject to the Award in a manner that is disproportionate to the increase in the number of Shares subject to the Award, as long as the amount that would be received upon exercise of the Award immediately before and immediately

following the closing of the transaction is equivalent and the adjustment complies with Treasury Regulation Section 1.409A-1(b)(v)(D); and

(iv) to suspend a Participant's right to exercise an Option during a limited period of time preceding and or following the closing of the transaction without Participant consent if such suspension is administratively necessary or advisable to permit the closing of the transaction.

(e) Non-Continuation. If the successor corporation does not continue for an Award (or some portion such Award), the Participant will fully vest in (and have the right to exercise) 100% of the then-unvested Shares subject to his or her outstanding Options and Stock Appreciation Rights, all restrictions on 100% of the Participant's outstanding Restricted Stock and Restricted Stock Units will lapse, and, regarding 100% of Participant's outstanding Awards with performance-based vesting, all performance goals or other vesting criteria will be treated as achieved at 100% of target levels and all other terms and conditions met. In no event will vesting of an Award accelerate as to more than 100% of the Award. If Options or Stock Appreciation Rights are not continued when a Change in Control or a merger of the Company with or into another corporation or other entity occurs, the Administrator will notify the Participant in writing or electronically that the Participant's vested Options or Stock Appreciation Rights (after considering the foregoing vesting acceleration, if any) will be exercisable for a period of time determined by the Administrator in its sole discretion and all of the Participant's Options or Stock Appreciation Rights will terminate upon the expiration of such period (whether vested or unvested).

(f) Outside Director Awards. With respect to Awards granted to an Outside Director that are continued, if on the date of or following such continuation the Participant's status as a Director or a director of the successor corporation, as applicable, is terminated other than upon a voluntary resignation by the Participant that is not at the request of the acquirer, then the Participant will fully vest in and have the right to exercise Options and/or Stock Appreciation Rights as to all of the Shares underlying such Award, including those Shares not otherwise vested or exercisable, all restrictions on Restricted Stock and Restricted Stock Units will lapse, and, with respect to Awards with performance-based vesting, all performance goals or other vesting criteria will be treated as achieved at 100% of target levels and all other terms and conditions met.

15. Tax Matters.

(a) Withholding Requirements. Prior to the delivery of any Shares or cash under an Award (or exercise thereof) or such earlier time as any tax withholding obligations are due, the Company may deduct or withhold, or require a Participant to remit to the Company, an amount sufficient to satisfy any taxes (including the Participant's social tax obligations) required to be withheld with respect to such Award (or exercise thereof).

(b) Withholding Arrangements. The Administrator, in its sole discretion and under such procedures as it may specify from time to time, may permit or may require a Participant to satisfy such tax withholding obligations, in whole or in part by (without limitation) (i) paying cash, (ii) electing to have the Company withhold otherwise deliverable cash (including cash from

the sale of Shares issued to Participant) or Shares having a fair market value equal to the minimum statutory amount required to be withheld or a greater amount if that would not result in unfavorable financial accounting treatment, (iii) delivering to the Company already-owned Shares having a fair market value equal to the minimum statutory amount required to be withheld, or (iv) requiring the Participant to engage in a cashless exercise transaction (whether through a broker or otherwise) implemented by the Company in connection with the Plan. The fair market value of the Shares to be withheld or delivered will be determined as of the date the taxes must be withheld.

(c) Compliance With Code Section 409A. Except as otherwise determined by the Administrator, it is intended that Awards will be designed and operated so that they are either exempt from the application of Code Section 409A or comply with any requirements necessary to avoid the imposition of additional tax under Code Section 409A(a)(1)(B) so that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Code Section 409A and the Plan and each Award Agreement will be interpreted consistent with this intent. This Section 15(c) is not a guarantee to any Participant of the consequences of his or her Awards.

16. Other Terms.

(a) No Effect on Employment or Service. Neither the Plan nor any Award will confer upon a Participant any right regarding continuing the Participant's relationship as a Service Provider with the Company or member of the Company Group, nor will they interfere with the Participant's right, or the Participant's employer's right, to terminate such relationship with or without cause, to the extent permitted by Applicable Laws.

(b) Forfeiture Events.

(i) All Awards granted under the Plan will be subject to recoupment under any clawback policy that the Company is required to adopt pursuant to the listing standards of any national securities exchange or association on which the Company's securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other Applicable Laws. In addition, the Administrator may impose such other clawback, recovery or recoupment provisions in an Award Agreement as the Administrator determines necessary or appropriate, including but not limited to a reacquisition right regarding previously acquired Shares or other cash or property. Unless this Section 16(b) is specifically mentioned and waived in an Award Agreement or other document, no recovery of compensation under a clawback policy or otherwise will give a Participant the right to resign for "good reason" or "constructive termination" (or similar term) under any agreement with the Company.

(ii) The Administrator may specify in an Award Agreement that the Participant's rights, payments, and benefits with respect to an Award will be subject to reduction, cancellation, forfeiture, or recoupment upon the occurrence of specified events, in addition to any otherwise applicable vesting or performance conditions of an Award. In the event of termination of such Participant's status as Service Provider for Cause or any act by a Participant, whether before or after such Participant's Termination Status Date, that would constitute cause

for termination of such Participant's status as a Service Provider, all Awards will terminate immediately.

(iii) If the Company is required to prepare an accounting restatement due to the material noncompliance of the Company, as a result of misconduct, with any financial reporting requirement under securities laws, any Participant who (i) knowingly or through gross negligence engaged in the misconduct or who knowingly or through gross negligence failed to prevent the misconduct or (ii) is one of the individuals subject to automatic forfeiture under Section 304 of the Sarbanes-Oxley Act of 2002, must reimburse the Company the amount of any payment in settlement of an Award earned or accrued during the 12-month period following the first public issuance or filing with the United States Securities and Exchange Commission (whichever first occurred) of the financial document embodying such financial reporting requirement.

17. Term of Plan.

Subject to Section 20, the Plan will become effective upon the business day immediately prior to the Registration Date. It will continue in effect until terminated under Section 18, but no Incentive Stock Options may be granted after 10 years from the date the Plan is adopted by the Board and Section 2(b) will operate only until the 10th anniversary of the date the Plan is adopted by the Board.

18. Amendment and Termination of the Plan.

(a) Amendment and Termination. The Board or Compensation Committee of the Board may amend, alter, suspend or terminate the Plan.

(b) Stockholder Approval. The Company will obtain stockholder approval of any Plan amendment to the extent necessary or desirable to comply with Applicable Laws.

(c) Consent of Participants Generally Required. Subject to Section 18(d) below, no amendment, alteration, suspension or termination of the Plan or an Award under it will materially impair the rights of any Participant without a signed, written agreement between the Participant and the Company. Termination of the Plan will not affect the Administrator's ability to exercise the powers granted to it regarding Awards granted under the Plan prior to such termination.

(d) Exceptions to Consent Requirement.

(i) A Participant's rights will not be deemed to have been impaired by any amendment, alteration, suspension or termination if the Administrator, in its sole discretion, determines that the amendment, alteration, suspension or termination taken as a whole, does not materially impair the Participant's rights; and

(ii) Subject to any limitations of Applicable Laws, the Administrator may amend the terms of any one or more Awards without the affected Participant's consent even if it does materially impair the Participant's right if such amendment is done

(1) in a manner permitted under the Plan,

(2) to maintain the qualified status of the Award as an Incentive Stock Option under Code Section 422,

(3) to change the terms of an Incentive Stock Option, if such change results in impairment of the Award only because it impairs the qualified status of the Award as an Incentive Stock Option under Code Section 422,

(4) to clarify the manner of exemption from Code Section 409A or compliance with any requirements necessary to avoid the imposition of additional tax under Code Section 409A(a)(1)(B), or

(5) to comply with other Applicable Laws.

19. Conditions Upon Issuance of Shares.

(a) Legal Compliance. Shares will not be issued pursuant to the exercise of an Award unless the exercise of such Award and the issuance and delivery of such Shares will comply with Applicable Laws. If required by the Administrator, issuance will be further subject to the approval of counsel for the Company with respect to such compliance. The inability of the Company to obtain authority from any regulatory body having jurisdiction or to complete or comply with the requirements of any Applicable Laws will relieve the Company of any liability regarding the failure to issue or sell such Shares as to which such authority, registration, qualification or rule compliance was not obtained and the Administrator reserves the authority, without the consent of a Participant, to terminate or cancel Awards with or without consideration in such a situation.

(b) Investment Representations. As a condition to the exercise of an Award, the Company may require the person exercising such Award to represent and warrant during any such exercise that the Shares are being purchased only for investment and with no present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

(c) Failure to Accept Award. If a Participant has not accepted an Award or has not taken all administrative and other steps (e.g. setting up an account with a broker designated by the Company) necessary for the Company to issue Shares upon the vesting, exercise, or settlement of the Award prior to the first date the Shares subject such Award are scheduled to vest, then the Award will be cancelled on such date and the Shares subject to such Award immediately will revert to the Plan for no additional consideration unless otherwise provided by the Administrator.

20. Stockholder Approval.

The Plan will be subject to approval by the stockholders of the Company within 12 months after the date the Plan is adopted by the Board. Such stockholder approval will be obtained in the manner and to the degree required under Applicable Laws.

21. Definitions.

The following definitions are used in this Plan:

(a) "Applicable Laws" means the requirements relating to the administration of equity-based awards and the related issuance of Shares under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and, only to the extent applicable with respect to an Award or Awards, the tax, securities or exchange control laws of any jurisdictions other than the United States where Awards are, or will be, granted under the Plan. Reference to a section of an Applicable Law or regulation related to that section shall include such section or regulation, any valid regulation issued under such section, and any comparable provision of any future legislation or regulation amending, supplementing or superseding such section or regulation.

(b) "Award" means, individually or collectively, a grant under the Plan of Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Stock Units, Performance Shares, or Performance Awards.

(c) "Award Agreement" means the written or electronic agreement setting forth the terms applicable to an Award granted under the Plan. The Award Agreement is subject to the terms of the Plan.

(d) "Board" means the Board of Directors of the Company.

(e) "Cause" means (i) the commission of an act of theft, embezzlement, fraud, or dishonesty, (ii) a breach of fiduciary duty to the Company or a member of the Company Group including misappropriation of any Company corporate opportunity, (iii) violation of the terms of Employee's Confidential Information, Assignment of Inventions, and Noncompetition Agreement with the Company, (iv) final conviction of a felony that adversely affects the Company (with all appeals exhausted), or (v) a failure to materially perform the customary duties of Employee's employment.

(f) "Change in Control" means the occurrence of any of the following events:

(i) A change in the ownership of the Company which occurs on the date that any one person, or more than one person acting as a group ("Person"), acquires ownership of the stock of the Company that, with the stock held by such Person, constitutes more than 50% of the total voting power of the stock of the Company; provided, that for this subsection, the acquisition of additional stock by any one Person, who prior to such acquisition is considered to own more than 50% of the total voting power of the stock of the Company will not be considered a Change in Control. Further, if the stockholders of the Company immediately before such change in ownership continue to retain immediately after the change in ownership, in substantially the same proportions as their ownership of shares of the Company's voting stock immediately prior to the change in ownership, direct or indirect beneficial ownership of 50% or more of the total voting power of the stock of the Company, such event shall not be considered a Change in Control under this Section 21(e)(i). For this purpose, indirect beneficial ownership shall include, without limitation, an interest resulting from ownership of the voting securities of one or more

corporations or other business entities which own the Company, as the case may be, either directly or through one or more subsidiary corporations or other business entities; or

(ii) A change in the effective control of the Company which occurs on the date a majority of members of the Board is replaced during any 12-month period by Directors whose appointment or election is not endorsed by a majority of the members of the Board prior to the appointment or election. For this Section 21(e)(ii), if any Person is in effective control of the Company, the acquisition of additional control of the Company by the same Person will not be considered a Change in Control; or

(iii) A change in the ownership of a substantial portion of the Company's assets which occurs on the date that any Person acquires (or has acquired during the 12-month period ending on the date of the most recent acquisition by such Person or Persons) assets from the Company that have a total gross fair market value equal to or more than 50% of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions; provided, that for this Section 21(e)(iii), the following will not constitute a change in the ownership of a substantial portion of the Company's assets:

(1) a transfer to an entity controlled by the Company's stockholders immediately after the transfer, or

(2) a transfer of assets by the Company to:

(A) a stockholder of the Company (immediately before the asset transfer) in exchange for or with respect to the Company's stock,

(B) an entity, 50% or more of the total value or voting power of which is owned, directly or indirectly, by the Company,

(C) a Person, that owns, directly or indirectly, 50% or more of the total value or voting power of all the outstanding stock of the Company, or

(D) an entity, at least 50% of the total value or voting power of which is owned, directly or indirectly, by a Person described in subsections 21(e)(iii)(2)(A) to 21(e)(iii)(2)(C).

For this definition, gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets. For this definition, persons will be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

A transaction will not be a Change in Control:

(iv) unless the transaction qualifies as a change in control event within the meaning of Code Section 409A; or

(v) if its sole purpose is to (1) change the state of the Company's incorporation, or (2) create a holding company owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction.

(g) "Code" means the Internal Revenue Code of 1986. Reference to a section of the Code or regulation related to that section shall include such section or regulation, any valid regulation issued under such section, and any comparable provision of any future legislation or regulation amending, supplementing or superseding such section or regulation.

(h) "Committee" means a committee of Directors or of other individuals satisfying Applicable Laws appointed by the Board.

(i) "Common Stock" means the common stock of the Company.

(j) "Company" means Genprex, Inc., a Delaware corporation, or any of its successors.

(k) "Company Group" means the Company, any Parent or Subsidiary of the Company, and any entity that, from time to time and at the time of any determination, directly or indirectly, is in control of, is controlled by or is under common control with the Company.

(l) "Consultant" means any natural person engaged by a member of the Company Group to render bona fide services to such entity, provided the services (i) are not in connection with the offer or sale of securities in a capital raising transaction, and (ii) do not directly promote or maintain a market for the Company's securities. A Consultant must be a person to whom the issuance of Shares registered on Form S-8 under the Securities Act is permitted.

(m) "Director" means a member of the Board.

(n) "Disability" means, with respect to a Participant, the inability of such Participant to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or that has lasted or can be expected to last for a continuous period of not less than 12 months, as provided in Sections 22(e)(3) and 409A(a)(2)(c)(i) of the Code, and will be determined by the Board on the basis of such medical evidence as the Board deems warranted under the circumstances.

(o) "Employee" means any person, including Officers and Directors, employed by the Company or any member of the Company Group. However, with respect to Incentive Stock Options, an Employee must be employed by the Company or any Parent or Subsidiary of the Company at the time of grant. Notwithstanding Stock Options granted to individuals not providing services to the Company or a subsidiary of the Company should be carefully structured to comply with the payment timing rule of Code Section 409A. Neither service as a Director nor payment of a director's fee by the Company will constitute "employment" by the Company.

(p) "Exchange Act" means the U.S. Securities Exchange Act of 1934.

(q) "Exchange Program" means a program under which (i) outstanding Awards are surrendered or cancelled in exchange for awards of the same type (which may have higher or

lower Exercise Prices and different terms), awards of a different type, and/or cash, (ii) Participants would have the opportunity to transfer any outstanding Awards to a financial institution or other person or entity selected by the Administrator, and/or (iii) the Exercise Price of an outstanding Award is increased or reduced. The Administrator will determine the terms and conditions of any Exchange Program in its sole discretion.

(r) "Expiration Date" means the last possible day on which an Option or Stock Appreciation Right may be exercised. Any exercise must be completed by midnight Central Time between the Expiration Date and the following date.

(s) "Fair Market Value" means, as of any date, the value of a Share, determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the New York Stock Exchange, the NASDAQ Global Select Market, the NASDAQ Global Market or the NASDAQ Capital Market of The NASDAQ Stock Market, the Fair Market Value will be the closing sales price for a Share (or the closing bid, if no sales were reported) as quoted on such exchange or system on the day of determination, as reported by such source as the Administrator determines to be reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, the Fair Market Value of a Share will be the mean between the high bid and low asked prices for the Common Stock on the day of determination (or, if no bids and asks were reported on that date on the last Trading Day such bids and asks were reported), as reported by such source as the Administrator determines to be reliable;

(iii) For any Awards granted on the Registration Date, the Fair Market Value will be the initial price to the public set forth in the final prospectus included within the registration statement in Form S-1 filed with the Securities and Exchange Commission for the initial public offering of the Company's Common Stock; or

(iv) Absent an established market for the Common Stock, the Fair Market Value will be determined in good faith by the Administrator.

Notwithstanding the foregoing, if the determination date for the Fair Market Value occurs on a weekend, holiday or other non-Trading Day, the Fair Market Value will be the price as determined under subsections (i) or (ii) above on the immediately preceding Trading Day, unless otherwise determined by the Administrator. In addition, for purposes of determining the fair market value of shares for any reason other than the determination of the Exercise Price of Options or Stock Appreciation Rights, fair market value will be determined by the Administrator in a manner compliant with Applicable Laws and applied consistently for such purpose. Note that the determination of fair market value for purposes of tax withholding may be made in the Administrator's sole discretion subject to Applicable Laws and is not required to be consistent with the determination of Fair Market Value for other purposes.

(t) "Fiscal Year" means a fiscal year of the Company.

(u) "Incentive Stock Option" means an Option that is intended to qualify and does qualify as an incentive stock option within the meaning of Code Section 422.

(v) "Nonstatutory Stock Option" means an Option that by its terms does not qualify or is not intended to qualify as an Incentive Stock Option.

(w) "Officer" means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act.

(x) "Option" means a stock option to acquire Shares granted under Section 4.

(y) "Outside Director" means a Director who is not an Employee.

(z) "Parent" means a "parent corporation," whether now or hereafter existing, as defined in Code Section 424(e).

(aa) "Participant" means the holder of an outstanding Award.

(bb) "Performance Awards" means an Award which may be earned in whole or in part upon attainment of performance goals or other vesting criteria as the Administrator may determine and which will be settled for cash, Shares or other securities or a combination of the foregoing under Section 9.

(cc) "Performance Factors" means one or more of the following: (1) earnings (including earnings per share and net earnings); (2) earnings before interest, taxes and depreciation; (3) earnings before interest, taxes, depreciation and amortization; (4) earnings before interest, taxes, depreciation, amortization and legal settlements; (5) earnings before interest, taxes, depreciation, amortization, legal settlements and other income (expense); (6) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense) and stock-based compensation; (7) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense), stock-based compensation and changes in deferred revenue; (8) earnings before interest, taxes, depreciation, amortization, legal settlements, other income (expense), stock-based compensation, other non-cash expenses and changes in deferred revenue; (9) total stockholder return; (10) return on equity or average stockholder's equity; (11) return on assets, investment, or capital employed; (12) stock price; (13) margin (including gross margin); (14) income (before or after taxes); (15) operating income; (16) operating income after taxes; (17) pre-tax profit; (18) operating cash flow; (19) sales or revenue targets; (20) increases in revenue or product revenue; (21) expenses and cost reduction goals; (22) improvement in or attainment of working capital levels; (23) economic value added (or an equivalent metric); (24) market share; (25) cash flow; (26) cash flow per share; (27) cash balance; (28) cash burn; (29) cash collections; (30) share price performance; (31) debt reduction; (32) implementation or completion of projects or processes (including, without limitation, discovery of a preclinical drug candidate, recommendation of a drug candidate to enter a clinical trial, clinical trial initiation, clinical trial enrollment and dates, clinical trial results, regulatory filing submissions (such as IND, BLA and NDA), regulatory filing acceptances, regulatory or advisory committee interactions, regulatory approvals, and product supply); (33) stockholders' equity; (34) capital expenditures; (35) financings; (36) operating profit or net operating profit; (37) workforce diversity; (38) growth of net income or operating income; (39) employee

retention; (40) initiation of studies by specific dates; (41) budget management; (42) submission to, or approval by, a regulatory body (including, but not limited to the FDA) of an applicable filing or a product; (43) regulatory milestones; (44) progress of internal research or development programs; (45) progress of partnered programs; (46) partner satisfaction; (47) timely completion of clinical trials; (48) milestones related to research development (including, but not limited to, preclinical and clinical studies), product development and manufacturing; (49) expansion of sales in additional geographies or markets; (50) research progress, including the development of programs; (51) strategic partnerships or transactions (including in-licensing and out-licensing of intellectual property; (52) filing of patent applications and granting of patents; and (53) and to the extent that an award is not intended to comply with Section 162(m) of the Code, other measures of performance selected by our board of directors.

(dd) "Performance Share" means an Award denominated in Shares which may be earned in whole or in part upon attainment of performance goals or other vesting criteria as the Administrator may determine under Section 8.

(ee) "Performance Stock Units" means an Award which may be earned in whole or in part upon attainment of performance goals or other vesting criteria as the Administrator may determine and which may be settled for cash, Shares or other securities or a combination of the foregoing under Section 8.

(ff) "Period of Restriction" means the period during which the transfer of Shares of Restricted Stock is subject to restrictions and therefore, the Shares are subject to a substantial risk of forfeiture. Such restrictions may be based on the passage of time, the achievement of target levels of performance, or the occurrence of other events as determined by the Administrator.

(gg) "Plan" means this 2018 Equity Incentive Plan.

(hh) "Registration Date" means the effective date of the first registration statement filed by the Company and declared effective under Section 12(b) of the Exchange Act, with respect to any class of the Company's securities.

(ii) "Restricted Stock" means Shares issued under an Award granted under Section 5 or issued as a result of the early exercise of an Option.

(jj) "Restricted Stock Unit" means a bookkeeping entry representing an amount equal to the Fair Market Value, granted under Section 6. Each Restricted Stock Unit represents an unfunded and unsecured obligation of the Company.

(kk) "Securities Act" means Securities Act of 1933, as amended.

(ll) "Service Provider" means an Employee, Director or Consultant.

(mm) "Share" means a share of Common Stock.

(nn) "Stock Appreciation Right" means an Award granted (alone or in connection with an Option) under Section 7.

(oo) “Subsidiary” means a “subsidiary corporation” as defined in Code Section 424(f).

(pp) “Trading Day” means a day on which the applicable stock exchange or national market system is open for trading.

GENPREX, INC.
2018 EQUITY INCENTIVE PLAN

NOTICE OF STOCK OPTION GRANT AND STOCK OPTION AGREEMENT

Capitalized terms that are not defined in this Notice of Stock Option Grant and Stock Option Agreement (the "**Notice of Grant**"), the Terms and Conditions of Stock Option Grant, or any of the exhibits to these documents (all together, the "**Agreement**") have the meanings given to them in the Genprex, Inc. 2018 Equity Incentive Plan (the "**Plan**").

The Participant has been granted an Option according to the terms below and subject to the terms and conditions of the Plan and this Agreement:

Participant	_____
Grant Number	_____
Grant Date	_____
Vesting Start Date	_____
Number of Shares Granted	_____
Exercise Price per Share	_____
Total Exercise Price	_____
Type of Option	_ Incentive Stock Option _ Nonstatutory Stock Option
Expiration Date	_____

Vesting Schedule:

Unless the vesting is accelerated, this Option will be exercisable to the extent vested on the following schedule:

If the Participant continues to be a Service Provider through each such date, 25% of this Option will vest on the 1-year anniversary of the Vesting Start Date, and 1/48th of this Option will vest each month after that anniversary on the same day of the month as the Vesting Start Date (or if there is no corresponding day in a given month, then on the last day of that month). All vesting will be rounded in accordance with Section 3(f) of the Plan.

If the Participant ceases to be a Service Provider for any or no reason before he or she fully vests in this Option, the unvested portion of this Option will terminate according to the terms of Section 4 of this Agreement.

Exercise of Option:

(a) If the Participant dies or his or her status as a Service Provider is terminated due to his or her Disability, the vested portion of this Option will remain exercisable for 12 months after the Termination of Status Date. For any other termination of status as a Service Provider, the vested portion of this Option will remain exercisable for 3 months after the Termination of Status Date.

(b) If there is a Change in Control or merger of the Company, Section 14 of the Plan may further limit this Option's exercisability.

(c) This Option will not be exercisable after the Expiration Date, unless Section 4(g) of the Plan (which tolls expiration in very limited cases when there are legal restrictions on exercise) permits later exercise.

The Participant's signature below indicates that:

(i) He or she agrees that this Option is granted under and governed by the terms and conditions of the Plan and this Agreement, including their exhibits and appendices.

(ii) He or she understands that the Company is not providing any tax, legal, or financial advice and is not making any recommendations regarding his or her participation in the Plan or his or her acquisition or sale of Shares.

(iii) He or she has reviewed the Plan and this Agreement, has had an opportunity to obtain the advice of personal tax, legal, and financial advisors prior to signing this Agreement, and fully understands all provisions of the Plan and Agreement. He or she will consult with his or her own personal tax, legal, and financial advisors before taking any action related to the Plan.

(iv) He or she has read and agrees to each provision of Section 11 of this Agreement.

(v) He or she will notify the Company of any change to the contact address below.

PARTICIPANT

Signature _____

Address: _____

_____

_____

EXHIBIT A

TERMS AND CONDITIONS OF STOCK OPTION GRANT

1. Grant. The Company grants the Participant an Option to purchase Shares of Common Stock as described in the Notice of Grant. If there is a conflict between the Plan, this Agreement, or any other agreement with the Participant governing this Option, those documents will take precedence and prevail in the following order: (a) the Plan, (b) the Agreement, and (c) any other agreement between the Company and the Participant governing this Option.

If the Notice of Grant designates this Option as an Incentive Stock Option ("**ISO**"), this Option is intended to qualify as an ISO under Code Section 422. Even if this Option is designated an ISO, to the extent it first become exercisable as to more than $100,000 in any calendar year, the portion in excess of $100,000 is not an ISO under Code Section 422(d) and that portion will be a Nonstatutory Stock Option ("**NSO**"). In addition, if the Participant exercises the Option after 3 months have passed since he or she ceased to be an employee of the Company or a Parent or Subsidiary of the Company, it will no longer be an ISO. If there is any other reason this Option (or a portion of it) will not qualify as an ISO, to the extent of such nonqualification, the Option will be an NSO. The Participant understands that he or she will have no recourse against the Administrator, any member of the Company Group, or any officer or director of a member of the Company Group if any portion of this Option is not an ISO.

2. Vesting. This Option will only be exercisable (also referred to as vested) under the Vesting Schedule in the Notice of Grant, Section 3 of this Agreement, or Section 14 of the Plan. Shares scheduled to vest on a certain date or upon the occurrence of a certain condition will not vest unless the Participant continues to be a Service Provider until the time such vesting is scheduled to occur. The Administrator may modify the Vesting Schedule according to its authority under the Plan if the Participant takes a leave of absence or has a reduction in hours worked.

3. Administrator Discretion. The Administrator may accelerate the vesting of any portion of this Option. In that case, this Option will be vested as of the date and to the extent specified by the Administrator.

4. Forfeiture upon Termination of Status as a Service Provider. Upon the Participant's termination as a Service Provider for any reason other than death or Disability, this Option will immediately stop vesting, and on the day that is 3 months following the Termination of Status Date (or any earlier date on or following the Termination of Status Date determined by the Administrator), any portion of this Option that has not been exercised will be immediately forfeited for no consideration, subject to Applicable Laws. In the event of a Participant's Disability, vested Options shall be exercisable for 12 months after the Participants termination as a Service Provider (or until the Expiration Date if earlier), and in the event of a Participant's death, vested Options shall be exercisable for 18 months after the Participant's termination as a Service Provider (or until the Expiration Date if earlier). The date of the Participant's termination as a Service Provider is detailed in Section 3(c) of the Plan.

5. Death of Participant. Any distribution or delivery to be made to the Participant under this Agreement will, if he or she is then deceased, be made to the administrator or executor of his or her estate or, if the Administrator permits, his or her designated beneficiary. Any such transferee must furnish the Company with (a) written notice of his or her status as transferee, and (b) evidence satisfactory to the Company to establish the validity of the transfer and compliance with any laws or regulations that apply to the transfer.

6. Exercise of Option.

(a) **Right to Exercise.** This Option may be exercised only before its Expiration Date and only under the Plan and this Agreement.

(b) **Method of Exercise**. To exercise this Option, the Participant must deliver and the Administrator must receive an exercise notice according to procedures determined by the Administrator. The exercise notice must:

(i) state the number of Shares as to which this Option is being exercised ("**Exercised Shares**"),

(ii) make any representations or agreements required by the Company,

(iii) be accompanied by a payment of the total exercise price for all Exercised Shares, and

(iv) be accompanied by a payment of all required Tax-Related Items (defined in Section 8(a) of this Agreement) for all Exercised Shares.

The Option is exercised when both the exercise notice and payments due under Sections 6(b)(iii) and 6(b)(iv) have been received by the Company for all Exercised Shares. The Administrator may designate a particular exercise notice to be used, but until a designation is made, the exercise notice attached to this Agreement as Exhibit C may be used.

7. Method of Payment. The Participant may pay the exercise price for Exercised Shares by any of the following methods or a combination of methods:

(a) cash;

(b) check;

(c) wire transfer;

(d) consideration received by the Company under a formal cashless exercise program adopted by the Company; or

(e) surrender of other Shares, as long as the Company determines that accepting such Shares does not result in any adverse accounting consequences to the Company. If Shares are surrendered, the value of those Shares will be the Fair Market Value for those Shares on the date they are surrendered.

A non-U.S. resident's methods of exercise may be restricted by the terms and condition of any appendix to this Agreement for the Participant's country (the "**Appendix**").

8. Tax Obligations.

(a) **Tax Withholding.**

(i) No Shares will be issued to the Participant until he or she makes satisfactory arrangements (as determined by the Administrator) for the payment of income, employment, social security, payroll tax, fringe benefit tax, payment on account, or other tax-related items related to his or her participation in the Plan and legally applicable to him or her that the Administrator determines must be withheld ("**Tax-Related Items**"), including those that result from the grant, vesting, or exercise of this Option, the subsequent sale of Shares acquired under this Option or the receipt of any dividends. If the Participant is a non-U.S. employee, the method of payment of Tax-Related Items may be restricted by any Appendix. If the Participant fails to make satisfactory arrangements for the payment of any Tax-Related Items under this Agreement at the time of an attempted Option exercise, the Company may refuse to honor the exercise and refuse to deliver the Shares.

(ii) The Company has the right (but not the obligation) to satisfy any Tax-Related Items by withholding from proceeds of a sale of Shares acquired upon the exercise of this Option arranged by the Company (on the Participant's behalf pursuant to this authorization without further consent), and this will be the method by which such tax withholding obligations are satisfied until the Company determines otherwise, subject to Applicable Laws.

(iii) The Company has the right (but not the obligation) to satisfy any Tax-Related Items by reducing the number of Shares otherwise deliverable to the Participant.

(iv) The Participant authorizes the Company and/or any member(s) of the Company Group for whom he or she is performing services (each, an "**Employer**") to withhold any Tax-Related Items legally payable by the Participant from his or her wages or other cash compensation paid to the Participant by the Company and/or the Employer(s) or from proceeds of the sale of Shares.

(v) Further, if the Participant is subject to taxation in more than one jurisdiction between the Grant Date and the date of any relevant taxable or tax withholding event, the Company and/or the Employer(s) or former Employer(s) may withhold or account for tax in greater than one jurisdiction.

(vi) Regardless of any action of the Company or the Employer(s), the Participant acknowledges that the ultimate liability for all Tax-Related Items is and remains his or her responsibility and may exceed the amount actually withheld by the Company or the Employer(s). The Participant further acknowledges that the Company and the Employer(s) (1) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the Option; and (2) do not commit to and are under no obligation to structure the terms of the grant or any aspect of this Option to reduce or eliminate his or her liability for Tax-Related Items or achieve any particular tax result.

(b) **Tax Reporting.** This Section 8(b) applies if the Participant is a U.S. taxpayer. If this Option is partially or wholly an ISO, and if the Participant sells or otherwise disposes of any the Shares acquired by exercising the ISO portion on or before the later of (i) the date 2 years after the Grant Date, or (ii) the date 1 year after the date of exercise, he or she may be subject to reporting of Tax-Related Items by the Company on the compensation income recognized by him or her and must immediately notify the Company in writing of the disposition.

9. Forfeiture or Clawback. This Option (including any proceeds, gains or other economic benefit received by the Participant from any subsequent sale of Shares resulting from the exercise) will be subject to any compensation recovery or clawback policy implemented by the Company before or after the date of this Agreement. This includes any clawback policy adopted to comply with the requirements of Applicable Laws.

10. Rights as Stockholder. The Participant's rights as a stockholder of the Company (including the right to vote and to receive dividends and distributions) will not begin until Shares have been issued and recorded on the records of the Company or its transfer agents or registrars.

11. Acknowledgements and Agreements. The Participant's signature on the Notice of Grant accepting this Option indicates that:

(a) HE OR SHE ACKNOWLEDGES AND AGREES THAT THE VESTING OF THIS OPTION IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AND THAT BEING HIRED, GRANTED THIS OPTION, AND EXERCISING THE OPTION WILL NOT RESULT IN VESTING.

(b) HE OR SHE FURTHER ACKNOWLEDGES AND AGREES THAT THIS OPTION AND AGREEMENT DO NOT CREATE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND DOES NOT INTERFERE IN ANY WAY WITH HIS OR HER RIGHT OR THE RIGHT OF THE EMPLOYER(S) TO TERMINATE HIS OR HER RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE, SUBJECT TO APPLICABLE LAWS.

(c) The Participant agrees that this Agreement and its incorporated documents reflect all agreements on its subject matters and that he or she is not accepting this Agreement based on any promises, representations, or inducements other than those reflected in the Agreement.

(d) The Participant understands that exercise of this Option is governed strictly by Sections 6, 7, and 8 of this Agreement and that failure to comply with those Sections could result in the expiration of this Option, even if an attempt was made to exercise.

(e) The Participant agrees that the Company's delivery of any documents related to the Plan or this Option (including the Plan, the Agreement, the Plan's prospectus and any reports of the Company provided generally to the Company's stockholders) to him or her may be made by electronic delivery, which may include the delivery of a link to a

Company intranet or the Internet site of a third party involved in administering the Plan, the delivery of the document via e-mail, or any other means of electronic delivery specified by the Company. If the attempted electronic delivery of such documents fails, the Participant will be provided with a paper copy of the documents. The Participant acknowledges that he or she may receive from the Company a paper copy of any documents that were delivered electronically at no cost to him or her by contacting the Company by telephone or in writing. The Participant may revoke his or her consent to the electronic delivery of documents or may change the electronic mail address to which such documents are to be delivered (if the Participant has provided an electronic mail address) at any time by notifying the Company of such revoked consent or revised e-mail address by telephone, postal service or electronic mail. Finally, the Participant understands that he or she is not required to consent to electronic delivery of documents.

(f) The Participant may deliver any documents related to the Plan or this Option to the Company by e-mail or any other means of electronic delivery approved by the Administrator, but he or she must provide the Company or any designated third party administrator with a paper copy of any documents if his or her attempted electronic delivery of such documents fails.

(g) The Participant accepts that all good faith decisions or interpretations of the Administrator regarding the Plan and Awards under the Plan are binding, conclusive, and final. No member of the Administrator will be personally liable for any such decisions or interpretations.

(h) The Participant agrees that the Plan is established voluntarily by the Company, is discretionary in nature, and may be amended, suspended, or terminated by the Company at any time, to the extent permitted by the Plan.

(i) The Participant agrees that the grant of this Option is voluntary and occasional and does not create any contractual or other right to receive future grants of options, or benefits in lieu of options, even if options have been granted in the past.

(j) The Participant agrees that any decisions regarding future Awards will be in the Company's sole discretion.

(k) The Participant agrees that he or she is voluntarily participating in the Plan.

(l) The Participant agrees that this Option and any Shares acquired under the Plan are not intended to replace any pension rights or compensation.

(m) The Participant agrees that this Option, any Shares acquired under the Plan, and their income and value of same are not part of normal or expected compensation for any purpose, including for purposes of calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, bonuses, holiday pay, long-service awards, pension or retirement or welfare benefits, or similar payments.

(n) The Participant agrees that the future value of the Shares underlying this Option is unknown, indeterminable, and cannot be predicted with certainty.

(o) The Participant understands that if the underlying Shares do not increase in value, this Option will have no intrinsic monetary value.

(p) The Participant understands that if this Option is exercised, the value of each Share received on exercise may increase or decrease in value, even below the Exercise Price per Share.

(q) The Participant agrees that, for purposes of this Option, his or her engagement as a Service Provider is terminated as of the Termination of Status Date (regardless of the reason for such termination and whether or not the termination is later found to be invalid or in breach of employment laws in the jurisdiction where he or she is a Service Provider or the terms of his or her service agreement, if any), unless otherwise expressly provided in this Agreement or determined by the Administrator.

(r) The Participant agrees that any right to vest in this Option terminates as of the Termination of Status Date and will not be extended by any notice period (e.g., the period that he or she is a Service Provider would not include any contractual notice period or any period of "garden leave" or similar period mandated under employment laws (including common law, if applicable) in the jurisdiction where he or she is a Service Provider or by his or her service agreement or employment agreement, if any, unless he or she is providing bona fide services during such time).

(s) The Participant agrees that the period during which the Participant may exercise the vested portion of this Option after a termination of his or her status as a Service Provider (if any) will start as of the Termination of Status Date (regardless of the reason for such termination and whether or not the termination is later found to be invalid or in breach of employment laws in the jurisdiction where he or she is a Service Provider or the terms of his or her service agreement, if any), unless otherwise expressly provided in this Agreement or determined by the Administrator.

(t) The Participant agrees that the Administrator has the exclusive discretion to determine when he or she is no longer actively providing services for purposes of this Option (including whether he or she is still considered to be providing services while on a leave of absence).

(u) The Participant agrees that no member of the Company Group is liable for any foreign exchange rate fluctuation between the Participant's local currency and the United States Dollar that may affect the value of this Option or of any amounts due to him or her from the exercise of this Option or the subsequent sale of any Shares acquired upon exercise.

(v) The Participant agrees that he or she has no claim or entitlement to compensation or damages from any forfeiture of this Option resulting from the termination of his or her status as a Service Provider (for any reason whatsoever, whether or not later found to be invalid or in breach of employment laws in the jurisdiction where he or she is a Service Provider or the terms of his or her service agreement, if any), and in consideration of the grant of this Option to which he or she is otherwise not entitled, he or she irrevocably agrees never to institute any claim against the Company or any member of the Company Group, waives his or her ability

(if any) to bring any such claim, and releases the Company and all members of the Company Group from any such claim. If any such claim is nevertheless allowed by a court of competent jurisdiction, then the Participant's participation in the Plan constitutes his or her irrevocable agreement to not pursue such claim and to execute any and all documents necessary to request dismissal or withdrawal of such claim.

12. Miscellaneous

(a) **Address for Notices.** Any notice to be given to the Company under the terms of this Agreement must be addressed to the Company at Genprex, Inc., 100 Congress Avenue, Suite 2000, Austin, TX 78701 until the Company designates another address in writing.

(b) **Non-Transferability of Option.** This Option may not be transferred other than by will or the laws of descent or distribution and may be exercised during the lifetime of the Participant only by him or her or his or her representative following a Disability.

(c) **Binding Agreement.** If this Option is transferred, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors, and assigns of the parties to this Agreement.

(d) **Additional Conditions to Issuance of Stock.** If the Company determines that the listing, registration, qualification, or rule compliance of the Common Stock on any securities exchange or under any state, federal, or foreign law or the tax code and related regulations or the consent or approval of any governmental regulatory authority is necessary or desirable as a condition to the issuance of Shares to the Participant (or his or her estate), the Company will try to meet the requirements of any such state, federal, or foreign law or securities exchange and to obtain any such consent or approval of any such governmental authority or securities exchange, but the Shares will not be issued until such conditions have been met in a manner acceptable to the Company.

(e) **Captions.** Captions provided in this Agreement are for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

(f) **Agreement Severable.** If any provision of this Agreement is held invalid or unenforceable, that provision will be severed from the remaining provisions of this Agreement and the invalidity or unenforceability will have no effect on the remainder of the Agreement.

(g) **Non-U.S. Appendix.** This Option is subject to any special terms and conditions set forth in any Appendix. If the Participant relocates to a country included in the Appendix, the special terms and conditions for that country will apply to him or her to the extent the Company determines that applying such terms and conditions is necessary or advisable for legal or administrative reasons.

(h) **Choice of Law; Choice of Forum.** The Plan, this Agreement, this Option, and all determinations made and actions taken under the Plan, to the extent not otherwise governed by the laws of the United States, will be governed by the laws of the State of Delaware without giving effect to principles of conflicts of law. For purposes of litigating any dispute that arises under the Plan, the Participant's acceptance of this Option is his or her consent to the jurisdiction of the State of Delaware and his or her agreement that any such litigation will be conducted in the Delaware Court of Chancery or the federal courts for the United States for the District of Delaware and no other courts, regardless of where he or she is performing services.

(i) **Modifications to the Agreement.** The Plan and this Agreement constitute the entire understanding of the parties on the subjects covered. The Participant expressly warrants that he or she is not accepting this Agreement in reliance on any promises, representations, or inducements other than those contained herein. Modifications to this Agreement or the Plan can be made only in an express written contract executed by a duly authorized officer of the Company. The Company reserves the right to revise the Agreement as it deems necessary or advisable, in its sole discretion and without the consent of the Participant, to comply with Code Section 409A, to otherwise avoid imposition of any additional tax or income recognition under Code Section 409A in connection with this Option, or to comply with other Applicable Laws.

(j) **Waiver.** The Participant acknowledges that a waiver by the Company of a breach of any provision of this Agreement will not operate or be construed as a waiver of any other provision of this Agreement or of any subsequent breach of this Agreement by him or her.

EXHIBIT B

APPENDIX TO STOCK OPTION AGREEMENT

Terms and Conditions

This Appendix to Stock Option Agreement (the "**Appendix**") includes additional terms and conditions that govern this Option granted to the Participant under the Plan if he or she resides in one of the countries listed below on the Grant Date or he or she moves to one of the listed countries.

Notifications

This Appendix may also include information regarding exchange controls and certain other issues of which the Participant should be aware with respect to participation in the Plan. The information is based on the securities, exchange control, and other Applicable Laws in effect in the respective countries as of September 1, 2017. Such Applicable Laws are often complex and change frequently. As a result, the Company strongly recommends that the Participant not rely on the information in this Appendix as the only source of information relating to the consequences of participation in the Plan because the information may be out of date at the time the Participant sells Shares acquired under the Plan.

In addition, the information contained in this Appendix is general in nature and may not apply to the Participant's particular situation, and the Company is not in a position to assure him or her of a particular result. The Participant is advised to seek appropriate professional advice as to how the Applicable Laws in his or her country may apply to his or her situation.

Finally, if the Participant is a citizen or resident of a country other than the one in which he or she is currently working, transfers employment after this Option is granted, or is considered a resident of another country for local law purposes, the information in this Appendix may not apply to him or her, and the Administrator will determine to what extent the terms and conditions in this Appendix apply.

EXHIBIT C

GENPREX, INC.
2018 EQUITY INCENTIVE PLAN

EXERCISE NOTICE

Genprex, Inc.
100 Congress Avenue, Suite 2000
Austin, TX 78701

Attention: Stock Administration

Purchaser Name:

Grant Date of Stock Option (the "**Option**"):

Exercise Date:

Number of Shares Exercised:

Per Share Exercise Price:

Total Exercise Price:

Exercise Price Payment Method:

Tax-Related Items Payment Method:

The information in the table above is incorporated in this Exercise Notice.

1. **Exercise of Option.** Effective as the Exercise Date, I elect to purchase the Number of Shares Exercised ("**Exercised Shares**") under the Stock Option Agreement for the Option (the "**Agreement**") for the Total Exercise Price. Capitalized terms used but not defined in this Exercise Notice have the meanings given to them in the 2018 Equity Incentive Plan (the "**Plan**") and/or the Agreement.

2. **Delivery of Payment.** With this Exercise Notice, I am delivering the Total Exercise Price and any required Tax-Related Items to be paid in connection with purchase of the Exercised Shares. I am paying my total purchase price by the Exercise Price Payment Method and the Tax-Related Items by the Tax-Related Items Payment Method.

3. **Representations of Purchaser.** I acknowledge that:

(a) I have received, read, and understood the Plan and the Agreement and agree to be bound by their terms and conditions.

(b) The exercise will not be completed until this Exercise Notice, Total Exercise Price, and all Tax-Related Payments are received by the Company.

(c) I have no rights as a stockholder of the Company (including the right to vote and receive dividends and distributions) on the Exercised Shares until the Exercised Shares have been issued and recorded on the records of the Company or its transfer agents or registrars.

(d) No adjustment will be made for a dividend or other right for which the record date is before the date of issuance, except for adjustments under Section 13 of the Plan.

(e) There may be adverse tax consequences to exercising the Option, and I am not relying on the Company for tax advice and have had an opportunity to obtain the advice of personal tax, legal, and financial advisors prior to exercising.

(f) The modification and choice of law provisions of the Agreement also govern this Exercise Notice.

4. **Entire Agreement; Governing Law.** The Plan and the Agreement are incorporated by reference. This Exercise Notice, the Plan, and the Agreement are the entire agreement of the parties with respect to the Options and this exercise and supersede in their entirety all prior undertakings and agreements of the Company and Purchaser with respect to their subject matter.

Submitted by:

PURCHASER

Signature _____

Address: _____
_____
_____

GENPREX, INC.
2018 EQUITY INCENTIVE PLAN

NOTICE OF RESTRICTED STOCK AWARD
AND RESTRICTED STOCK AGREEMENT

Capitalized terms that are not defined in this Notice of Restricted Stock Award and Restricted Stock Agreement (the "**Notice of Grant**"), the Terms and Conditions of Restricted Stock Award, or any of the exhibits to these documents (all together, the "**Agreement**") have the meanings given to them in the Genprex, Inc. 2018 Equity Incentive Plan (the "**Plan**").

The Participant has been granted this Restricted Stock award according to the terms below and subject to the terms and conditions of the Plan and this Agreement, as follows:

Participant _____

Grant Number _____

Grant Date _____

Vesting Start Date _____

Number of Shares Granted _____

Vesting Schedule:

Unless the vesting is accelerated, these Shares of Restricted Stock will vest on the following schedule:

If the Participant continues to be a Service Provider through each such date, 25% of these Shares of Restricted Stock will vest on the 1-year anniversary of the Vesting Start Date, and 1/16th of these Shares of Restricted Stock will vest each quarter thereafter on the same day of the month as the Vesting Start Date (or if there is no corresponding day in a given month, then on the last day of that month). All vesting will be rounded in accordance with Section 3(f) of the Plan.

If the Participant ceases to be a Service Provider for any or no reason before he or she fully vests in these Shares of Restricted Stock, the unvested Shares of Restricted Stock will terminate according to the terms of Section 5 of this Agreement.

The Participant's signature below indicates that:

(i) He or she agrees that this Restricted Stock award is granted under and governed by the terms and conditions of the Plan and this Agreement, including their exhibits and appendices.

(ii) He or she understands that the Company is not providing any tax, legal, or financial advice and is not making any recommendations regarding his or her participation in the Plan or his or her acquisition or sale of Shares.

(iii) He or she has reviewed the Plan and this Agreement, has had an opportunity to obtain the advice of personal tax, legal, and financial advisors prior to signing this Agreement, and fully understands all provisions of the Plan and Agreement. He or she will consult with his or her own personal tax, legal, and financial advisors before taking any action related to the Plan.

(iv) He or she has read and agrees to each provision of Section 10 of this Agreement.

(v) He or she will notify the Company of any change to the contact address below.

PARTICIPANT

Signature _____

Address: _____
_____
_____

EXHIBIT A

TERMS AND CONDITIONS OF RESTRICTED STOCK AWARD

1. Grant. The Company grants the Participant an award of Restricted Stock as described in the Notice of Grant. If there is a conflict between the Plan, this Agreement, or any other agreement with the Participant governing these Shares of Restricted Stock, those documents will take precedence and prevail in the following order: (a) the Plan, (b) the Agreement, and (c) any other agreement between the Company and the Participant governing these Shares of Restricted Stock.

2. Escrow of Shares.

(a) Once the Participant signs this Agreement, all of these Shares of Restricted Stock will be delivered to an escrow holder designated by the Company (the "Escrow Holder") and will be held by the Escrow Holder until these Shares of Restricted Stock vest or the Participant ceases to be a Service Provider.

(b) The Escrow Holder is not liable for any act it does or does not do for purposes of holding these Shares of Restricted Stock in escrow.

(c) The Escrow Holder will transfer any vested Shares of Restricted Stock to the Participant at his or her request.

(d) The Participant has no right to receive cash dividends on any of these Shares of Restricted Stock that are held in escrow but has all other rights of a stockholder for such Shares, including the right to vote.

(e) These Shares of Restricted Stock will be subject to any adjustments made according to Section 13(a) of the Plan.

(f) The Company may instruct the transfer agent for the Common Stock to record the restrictions on transfer in this Agreement by placing a legend on the certificates representing the Restricted Stock or otherwise noting its records.

3. Vesting. These Shares of Restricted Stock will vest only under the Vesting Schedule in the Notice of Grant, Section 4 of this Agreement, or Section 14 of the Plan. Shares of Restricted Stock scheduled to vest on a certain date or upon the occurrence of a certain condition will not vest unless the Participant continues to be a Service Provider until the time such vesting is scheduled to occur. The Administrator may modify the Vesting Schedule according to its authority under the Plan if the Participant takes a leave of absence or has a reduction in hours worked.

4. Administrator Discretion. The Administrator has the discretion to accelerate the vesting of any number of unvested Shares of Restricted Stock at any time, subject to the terms of the Plan. In that case, those Shares of Restricted Stock will be vested as of the date specified by the Administrator.

5. Forfeiture upon Termination of Status as a Service Provider. Upon the Participant's termination as a Service Provider for any reason, these Shares of Restricted Stock will immediately stop vesting, and any of these Shares of Restricted Stock that have not yet vested will be forfeited by the Participant and automatically transferred by the Escrow Holder to the Company at no cost to the Company, subject to Applicable Laws. The Participant will not be refunded any price paid for such Shares and will have no further rights under this Agreement. The Participant appoints the Escrow Holder with full power of substitution (as the Participant's true and lawful attorney-in-fact with irrevocable power and authority in the name and on behalf of the Participant) to take any action and execute all documents and instruments, including stock powers necessary to transfer the certificate(s) evidencing such unvested Shares of Restricted Stock to the Company upon such termination. The date of the Participant's termination as a Service Provider is detailed in Section 3(c) of the Plan.

6. Death of Participant. Any distribution or delivery to be made to the Participant under this Agreement will, if he or she is then deceased, be made to the administrator or executor of his or her estate or, if the Administrator permits, his or her designated beneficiary. Any such transferee must furnish the Company with (a) written notice of his or her status as transferee, and (b) evidence satisfactory to the Company to establish the validity of the transfer and compliance with any laws or regulations that apply to the transfer.

7. Tax Withholding.

(a) No Shares of Restricted Stock may be released from escrow until the Participant makes satisfactory arrangements (as determined by the Administrator) for the payment of income, employment, social security, payroll tax, fringe benefit tax, payment on account, or other tax-related items related to his or her participation in the Plan and legally applicable to him or her that the Administrator determines must be withheld ("**Tax-Related Items**"), including those that result from the grant, vesting, or subsequent sale of Shares of Restricted Stock or the receipt of any dividends. If the Participant is a non-U.S. employee, the method of payment of Tax-Related Items may be restricted by any Appendix. If the Participant fails to make satisfactory arrangements for the payment of any Tax-Related Items under this Agreement when any of these Shares of Restricted Stock otherwise are supposed to vest or Tax-Related Items related to these Shares of Restricted Stock otherwise are due, he or she will permanently forfeit the applicable Shares of Restricted Stock and such Shares of Restricted Stock will be returned to the Company at no cost to the Company.

(b) The Company has the right (but not the obligation) to satisfy any Tax-Related Items by withholding from proceeds of a sale of any of these Shares of Restricted Stock that have vested arranged by the Company (on the Participant's behalf pursuant to this authorization without further consent), and this will be the method by which such tax withholding obligations are satisfied until the Company determines otherwise, subject to Applicable Laws.

(c) The Company also has the right (but not the obligation) to satisfy any Tax-Related Items by reducing the number of Shares otherwise deliverable to the Participant.

(d) Further, if the Participant is subject to taxation in more than one jurisdiction between the Grant Date and the date of any relevant taxable or tax withholding event, the Company and/or any member of the Company Group for whom he or she is performing services (each, an "Employer") or former Employer(s) may withhold or account for tax in more than one jurisdiction.

(e) Regardless of any action of the Company or the Employer(s), the Participant acknowledges that the ultimate liability for all Tax-Related Items is and remains his or her responsibility and may exceed the amount actually withheld by the Company or the Employer(s). The Participant further acknowledges that the Company and the Employer(s) (i) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of these Shares of Restricted Stock and (ii) do not commit to and are under no obligation to structure the terms of the grant or any aspect of these Shares of Restricted Stock to reduce or eliminate his or her liability for Tax-Related Items or achieve any particular tax result.

8. Forfeiture or Clawback. These Shares of Restricted Stock (including any proceeds, gains or other economic benefit received by the Participant from their subsequent sale) will be subject to any compensation recovery or clawback policy implemented by the Company before or after the date of this Agreement. This includes any clawback policy adopted to comply with the requirements of Applicable Laws.

9. Rights as Stockholder. The Participant's rights as a stockholder of the Company (including the right to vote and to receive dividends and distributions) will not begin until these Shares of Restricted Stock have been issued and recorded on the records of the Company or its transfer agents or registrars.

10. Acknowledgements and Agreements. The Participant's signature on the Notice of Grant accepting these Shares of Restricted Stock indicates that:

(a) HE OR SHE ACKNOWLEDGES AND AGREES THAT THE VESTING OF THE SHARES OF RESTRICTED STOCK IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AND THAT BEING HIRED OR BEING GRANTED THESE SHARES OF RESTRICTED STOCK DO NOT RESULT IN VESTING.

(b) HE OR SHE FURTHER ACKNOWLEDGES AND AGREES THAT THESE SHARES OF RESTRICTED STOCK AND THIS AGREEMENT DO NOT CREATE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL AND DOES NOT INTERFERE IN ANY WAY WITH HIS OR HER RIGHT OR THE RIGHT OF THE EMPLOYER(S) TO TERMINATE HIS OR HER RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE, SUBJECT TO APPLICABLE LAWS.

(c) The Participant agrees that this Agreement and its incorporated documents reflect all agreements on its subject matters and that he or she is not accepting this

Agreement based on any promises, representations, or inducements other than those reflected in the Agreement.

(d) The Participant agrees that the Company's delivery of any documents related to the Plan or these Shares of Restricted Stock (including the Plan, the Agreement, the Plan's prospectus, and any reports of the Company provided generally to the Company's stockholders) to him or her may be made by electronic delivery, which may include the delivery of a link to a Company intranet or to the Internet site of a third party involved in administering the Plan, the delivery of the document via e-mail, or any other means of electronic delivery specified by the Company. If the attempted electronic delivery of such documents fails, the Participant will be provided with a paper copy of the documents. The Participant acknowledges that he or she may receive from the Company a paper copy of any documents that were delivered electronically at no cost to him or her by contacting the Company by telephone or in writing. The Participant may revoke his or her consent to the electronic delivery of documents or may change the electronic mail address to which such documents are to be delivered (if the Participant has provided an electronic mail address) at any time by notifying the Company of such revoked consent or revised e-mail address by telephone, postal service or electronic mail. Finally, the Participant understands that he or she is not required to consent to electronic delivery of documents.

(e) The Participant may deliver any documents related to the Plan or these Shares of Restricted Stock to the Company by e-mail or any other means of electronic delivery approved by the Administrator, but he or she must provide the Company or any designated third party administrator with a paper copy of any documents if his or her attempted electronic delivery of such documents fails.

(f) The Participant accepts that all good faith decisions or interpretations of the Administrator regarding the Plan and Awards under the Plan are binding, conclusive, and final. No member of the Administrator will be personally liable for any such decisions or interpretations.

(g) The Participant agrees that the Plan is established voluntarily by the Company, is discretionary in nature, and may be amended, suspended, or terminated by the Company at any time, to the extent permitted by the Plan.

(h) The Participant agrees that the grant of these Shares of Restricted Stock is voluntary and occasional and does not create any contractual or other right to receive future grants of restricted stock or benefits in lieu of restricted stock, even if restricted stock has been granted in the past.

(i) The Participant agrees that any decisions regarding future Awards will be in the Company's sole discretion.

(j) The Participant agrees that he or she is voluntarily participating in the Plan.

(k) The Participant agrees that these Shares of Restricted Stock are not intended to replace any pension rights or compensation.

(l) The Participant agrees that these Shares of Restricted Stock and their income and value are not part of normal or expected compensation for any purpose, including for calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, bonuses, holiday pay, long-service awards, pension or retirement or welfare benefits, or similar payments.

(m) The Participant agrees that the future value of these Shares of Restricted Stock is unknown, indeterminable, and cannot be predicted with certainty.

(n) The Participant agrees that, for purposes of these Shares of Restricted Stock, his or her engagement as a Service Provider is terminated as of the Termination of Status Date (regardless of the reason for such termination and whether or not the termination is later found to be invalid or in breach of employment laws in the jurisdiction where he or she is a Service Provider or the terms of his or her service agreement, if any), unless otherwise expressly provided in this Agreement or determined by the Administrator.

(o) The Participant agrees that any right to vest in these Shares of Restricted Stock terminates as of the Termination of Status Date and will not be extended by any notice period (e.g., the period that he or she is a Service Provider would not include any contractual notice period or any period of "garden leave" or similar period mandated under employment laws (including common law, if applicable) in the jurisdiction where he or she is a Service Provider or by his or her service agreement or employment agreement, if any, unless he or she is providing bona fide services during such time).

(p) The Participant agrees that the Administrator has the exclusive discretion to determine when he or she is no longer actively providing services for purposes of these Shares of Restricted Stock (including whether he or she is still considered to be providing services while on a leave of absence).

(q) The Participant agrees that no member of the Company Group is liable for any foreign exchange rate fluctuation between the Participant's local currency and the United States Dollar that may affect the value of these Shares of Restricted Stock or of any amounts due to him or her upon the sale of any of these Shares of Restricted Stock.

(r) The Participant agrees that he or she has no claim or entitlement to compensation or damages from any forfeiture of these Shares of Restricted Stock resulting from the termination of his or her status as a Service Provider (for any reason whatsoever, whether or not later found to be invalid or in breach of employment laws in the jurisdiction where he or she is a Service Provider or the terms of his or her service agreement, if any), and in consideration of the grant of these Shares of Restricted Stock to which he or she is otherwise not entitled, he or she irrevocably agrees never to institute any claim against the Company or any member of the Company Group, waives his or her ability (if any) to bring any such claim, and releases the Company and all members of the Company Group from any such claim. If any such claim is nevertheless allowed by a court of competent jurisdiction, then the Participant's participation in the Plan constitutes his or her irrevocable agreement to not pursue such claim and to execute any and all documents necessary to request dismissal or withdrawal of such claim.

11. Miscellaneous.

(a) **Address for Notices.** Any notice to be given to the Company under the terms of this Agreement must be addressed to the Company at Genprex, Inc., 100 Congress Avenue, Suite 2000, Austin, TX 78701 until the Company designates another address in writing.

(b) **Non-Transferability of Restricted Stock.** These Shares of Restricted Stock may not be transferred other than by will or the laws of descent or distribution.

(c) **Binding Agreement.** If any Shares of Restricted Stock are transferred, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors, and assigns of the parties to this Agreement.

(d) **Additional Conditions to Issuance of Stock and Release from Escrow.** If the Company determines that the listing, registration, qualification, or rule compliance of the Common Stock on any securities exchange or under any state, federal, or foreign law or the tax code and related regulations or the consent or approval of any governmental regulatory authority is necessary or desirable as a condition to the issuance of these Shares of Restricted Stock or their release from escrow to the Participant (or his or her estate), the Company will try to meet the requirements of any such state, federal, or foreign law or securities exchange and to obtain any such consent or approval of any such governmental authority or securities exchange, but these Shares of Restricted Stock will not be issued until such conditions have been met in a manner acceptable to the Company.

(e) **Captions.** Captions provided in this Agreement are for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

(f) **Agreement Severable.** If any provision of this Agreement is held invalid or unenforceable, that provision will be severed from the remaining provisions of this Agreement and the invalidity or unenforceability will have no effect on the remainder of the Agreement.

(g) **Non-U.S. Appendix.** These Shares of Restricted Stock are subject to any special terms and conditions set forth in any appendix to this Agreement for the Participant's country (the "Appendix"). If the Participant relocates to a country included in the Appendix, the special terms and conditions for that country will apply to him or her to the extent the Company determines that applying such terms and conditions is necessary or advisable for legal or administrative reasons.

(h) **Choice of Law; Choice of Forum.** The Plan, this Agreement, these Shares of Restricted Stock, and all determinations made and actions taken under the Plan, to the extent not otherwise governed by the laws of the United States, will be governed by the laws of the State of Delaware without giving effect to principles of conflicts of law. For purposes of litigating any dispute that arises under the Plan, the Participant's acceptance of these Shares of

Restricted Stock is his or her consent to the jurisdiction of the State of Delaware and his or her agreement that any such litigation will be conducted in the Delaware Court of Chancery or the federal courts for the United States for the District of Delaware and no other courts, regardless of where he or she is performing services.

(i) **Modifications to the Agreement.** The Plan and this Agreement constitute the entire understanding of the parties on the subjects covered. The Participant expressly warrants that he or she is not accepting this Agreement in reliance on any promises, representations, or inducements other than those contained herein. Modifications to this Agreement or the Plan can be made only in an express written contract executed by a duly authorized officer of the Company. The Company reserves the right to revise the Agreement as it deems necessary or advisable, in its sole discretion and without the consent of the Participant, to comply with other Applicable Laws.

(j) **Waiver.** The Participant acknowledges that a waiver by the Company of a breach of any provision of this Agreement will not operate or be construed as a waiver of any other provision of this Agreement or of any subsequent breach of this Agreement by him or her.

EXHIBIT B

APPENDIX TO RESTRICTED STOCK AGREEMENT

Terms and Conditions

This Appendix to Restricted Stock Agreement (the "Appendix") includes additional terms and conditions that govern these Shares of Restricted Stock granted to the Participant under the Plan if he or she resides in one of the countries listed below on the Grant Date or he or she moves to one of the listed countries.

Notifications

This Appendix may also include information regarding exchange controls and certain other issues of which the Participant should be aware with respect to participation in the Plan. The information is based on the securities, exchange control, and other Applicable Laws in effect in the respective countries as of _____, 20__. Such Applicable Laws are often complex and change frequently. As a result, the Company strongly recommends that the Participant not rely on the information in this Appendix as the only source of information relating to the consequences of participation in the Plan because the information may be out of date at the time the Participant sells Shares acquired under the Plan.

In addition, the information contained in this Appendix is general in nature and may not apply to the Participant's particular situation, and the Company is not in a position to assure him or her of a particular result. The Participant is advised to seek appropriate professional advice as to how the Applicable Laws in his or her country may apply to his or her situation.

Finally, if the Participant is a citizen or resident of a country other than the one in which he or she is currently working, transfers employment after these Shares of Restricted Stock are granted, or is considered a resident of another country for local law purposes, the information in this Appendix may not apply to him or her, and the Administrator will determine to what extent the terms and conditions in this Appendix apply.

GENPREX, INC.
2018 EQUITY INCENTIVE PLAN

NOTICE OF RESTRICTED STOCK UNIT AWARD
AND RESTRICTED STOCK UNIT AGREEMENT

Capitalized terms that are not defined in this Notice of Restricted Stock Unit Award and Restricted Stock Unit Agreement (the "Notice of Grant"), the Terms and Conditions of Restricted Stock Unit Award, or any of the exhibits to these documents (all together, the "Agreement") have the meanings given to them in the Genprex, Inc. 2018 Equity Incentive Plan (the "Plan").

The Participant has been granted this Restricted Stock Unit ("RSU") award according to the terms below and subject to the terms and conditions of the Plan and this Agreement, as follows:

Participant _____

Grant Number _____

Grant Date _____

Vesting Start Date _____

Number of RSUs Granted _____

Vesting Schedule:

Unless the vesting is accelerated, these RSUs will vest on the following schedule:

If the Participant continues to be a Service Provider through each such date, 25% of these RSUs will vest on the 1-year anniversary of the Vesting Start Date, and 1/16th of these RSUs will vest each quarter thereafter on the same day of the month as the Vesting Start Date (or if there is no corresponding day in a given month, then on the last day of that month). All vesting will be rounded in accordance with Section 3(f) of the Plan.

If the Participant ceases to be a Service Provider for any or no reason before he or she fully vests in these RSUs, the unvested RSUs will terminate according to the terms of Section 5 of this Agreement.

The Participant's signature below indicates that:

(i) He or she agrees that this Restricted Stock Unit award is granted under and governed by the terms and conditions of the Plan and this Agreement, including their exhibits and appendices.

(ii) He or she understands that the Company is not providing any tax, legal, or financial advice and is not making any recommendations regarding his or her participation in the Plan or his or her acquisition or sale of Shares.

(iii) He or she has reviewed the Plan and this Agreement, has had an opportunity to obtain the advice of personal tax, legal, and financial advisors prior to signing this Agreement, and fully understands all provisions of the Plan and Agreement. He or she will consult with his or her own personal tax, legal, and financial advisors before taking any action related to the Plan.

(iv) He or she has read and agrees to each provision of Section 10 of this Agreement.

(v) He or she will notify the Company of any change to the contact address below.

PARTICIPANT

Signature _____

Address: _____
_____
_____

EXHIBIT A

TERMS AND CONDITIONS OF RESTRICTED STOCK UNIT AWARD

1. Grant. The Company grants the Participant an award of RSUs as described in the Notice of Grant. If there is a conflict between the Plan, this Agreement, or any other agreement with the Participant governing these RSUs, those documents will take precedence and prevail in the following order: (a) the Plan, (b) the Agreement, and (c) any other agreement between the Company and the Participant governing these RSUs.

2. Company's Obligation to Pay. Each RSU is a right to receive a Share on the date it vests. Until an RSU vests, the Participant has no right to payment of the Share. Before a vested RSU is paid, the RSU is an unsecured obligation of the Company, payable (if at all) only from the Company's general assets. A vested RSU will be paid to the Participant (or in the event of his or her death, to his or her estate) in whole Shares as soon as practicable after vesting (but no later than 60 days following the vesting date), subject to him or her satisfying any obligations for Tax-Related Items (as defined in Section 7 of this Agreement) and any delay in payment required under Section 7 of this Agreement. The Participant cannot specify (directly or indirectly) the taxable year of the payment of any vested RSU under this Agreement.

3. Vesting. These RSUs will vest only under the Vesting Schedule in the Notice of Grant, Section 4 of this Agreement, or Section 14 of the Plan. RSUs scheduled to vest on a certain date or upon the occurrence of a certain condition will not vest unless the Participant continues to be a Service Provider until the time such vesting is scheduled to occur. The Administrator may modify the Vesting Schedule according to its authority under the Plan if the Participant takes a leave of absence or has a reduction in hours worked.

4. Administrator Discretion. The Administrator has the discretion to accelerate the vesting of any RSUs at any time, subject to the terms of the Plan. In that case, those RSUs will be vested as of the date specified by the Administrator.

5. Forfeiture upon Termination of Status as a Service Provider. Upon the Participant's termination as a Service Provider for any reason, these RSUs will immediately stop vesting, and on the 30th day following the Termination of Status Date (or any earlier date on or following the Termination of Status Date determined by the Administrator), any of these RSUs that have not yet vested will be forfeited by the Participant, subject to Applicable Laws. The date of the Participant's termination as a Service Provider is detailed in Section 3(c) of the Plan.

6. Death of Participant. Any distribution or delivery to be made to the Participant under this Agreement will, if he or she is then deceased, be made to the administrator or executor of his or her estate or, if the Administrator permits, his or her designated beneficiary. Any such transferee must furnish the Company with (a) written notice of his or her status as transferee, and (b) evidence satisfactory to the Company to establish the validity of the transfer and compliance with any laws or regulations that apply to the transfer.

7. Tax Obligations.

(a) **Tax Withholding.**

(i) No Shares will be issued to the Participant until he or she makes satisfactory arrangements (as determined by the Administrator) for the payment of income, employment, social security, payroll tax, fringe benefit tax, payment on account, or other tax-related items related to his or her participation in the Plan and legally applicable to him or her that the Administrator determines must be withheld ("Tax-Related Items"), including those that result from the grant, vesting, or payment of these RSUs, the subsequent sale of Shares acquired pursuant to such payment, or the receipt of any dividends. If the Participant is a non-U.S. employee, the method of payment of Tax-Related Items may be restricted by any Appendix. If the Participant fails to make satisfactory arrangements for the payment of any Tax-Related Items under this Agreement when any of these RSUs otherwise are supposed to vest or Tax-Related Items related to RSUs otherwise are due, he or she will permanently forfeit the applicable RSUs and any right to receive Shares under such RSUs, and such RSUs will be returned to the Company at no cost to the Company.

(ii) The Company has the right (but not the obligation) to satisfy any Tax-Related Items by withholding from proceeds of a sale of Shares acquired upon payment of these RSUs arranged by the Company (on the Participant's behalf pursuant to this authorization without further consent), and this will be the method by which such tax withholding obligations are satisfied until the Company determines otherwise, subject to Applicable Laws.

(iii) The Company also has the right (but not the obligation) to satisfy any Tax-Related Items by reducing the number of Shares otherwise deliverable to the Participant.

(iv) Further, if the Participant is subject to taxation in more than one jurisdiction between the Grant Date and the date of any relevant taxable or tax withholding event, the Company and/or any member of the Company Group for whom he or she is performing services (each, an "Employer") or former Employer(s) may withhold or account for tax in more than one jurisdiction.

(v) Regardless of any action of the Company or the Employer(s), the Participant acknowledges that the ultimate liability for all Tax-Related Items is and remains his or her responsibility and may exceed the amount actually withheld by the Company or the Employer(s). The Participant further acknowledges that the Company and the Employer(s) (1) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of these RSUs and (2) do not commit to and are under no obligation to structure the terms of the grant or any aspect of these RSUs to reduce or eliminate his or her liability for Tax-Related Items or achieve any particular tax result.

(b) **Code Section 409A.** This Section 7(b) does not apply if the Participant is not a U.S. taxpayer.

(i) If the vesting of any RSUs is accelerated in connection with a termination of the Participant's status as a Service Provider that is a "separation from service"

within the meaning of Code Section 409A and (x) the Participant is a "specified employee" within the meaning of Code Section 409A at that time and (y) the payment of such accelerated RSUs would result in the imposition of additional tax under Code Section 409A if paid to the Participant within the 6-month period following such termination, then the accelerated RSUs will not be paid until the first day after the 6-month period ends.

(ii) If the Participant's status as a Service Provider terminates due to death or the Participant dies after he or she stops being a Service Provider, the delay under Section 7(b)(i) of this Agreement will not apply, and these RSUs will be paid in Shares to the Participant's estate as soon as practicable.

(iii) All payments and benefits under this Agreement are intended to be exempt from Code Section 409A or comply with any requirements necessary to avoid the imposition of additional tax under Code Section 409A(a)(1)(B) so that none of these RSUs or Shares issuable upon the vesting of RSUs will be subject to the additional tax imposed under Code Section 409A, and any ambiguities will be interpreted according to that intent.

(iv) Each payment under this Agreement is a separate payment under Treasury Regulations Section 1.409A-2(b)(2).

8. Forfeiture or Clawback. These RSUs (including any proceeds, gains or other economic benefit received by the Participant from any subsequent sale of Shares issued upon payment of the RSUs) will be subject to any compensation recovery or clawback policy implemented by the Company before or after the date of this Agreement. This includes any clawback policy adopted to comply with the requirements of Applicable Laws.

9. Rights as Stockholder. The Participant's rights as a stockholder of the Company (including the right to vote and to receive dividends and distributions) will not begin until Shares have been issued and recorded on the records of the Company or its transfer agents or registrars.

10. Acknowledgements and Agreements. The Participant's signature on the Notice of Grant accepting these RSUs indicates that:

(a) HE OR SHE ACKNOWLEDGES AND AGREES THAT THE VESTING OF THESE RSUS IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AND THAT BEING HIRED OR BEING GRANTED THESE RSUS WILL NOT RESULT IN VESTING.

(b) HE OR SHE FURTHER ACKNOWLEDGES AND AGREES THAT THESE RSUS AND THIS AGREEMENT DO NOT CREATE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL AND DOES NOT INTERFERE IN ANY WAY WITH HIS OR HER RIGHT OR THE RIGHT OF THE EMPLOYER(S) TO TERMINATE HIS OR HER RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE, SUBJECT TO APPLICABLE LAWS.

(c) The Participant agrees that this Agreement and its incorporated documents reflect all agreements on its subject matters and that he or she is not accepting this Agreement

based on any promises, representations, or inducements other than those reflected in the Agreement.

(d) The Participant agrees that the Company's delivery of any documents related to the Plan or these RSUs (including the Plan, the Agreement, the Plan's prospectus, and any reports of the Company provided generally to the Company's stockholders) to him or her may be made by electronic delivery, which may include the delivery of a link to a Company intranet or to the Internet site of a third party involved in administering the Plan, the delivery of the document via e-mail, or any other means of electronic delivery specified by the Company. If the attempted electronic delivery of such documents fails, the Participant will be provided with a paper copy of the documents. The Participant acknowledges that he or she may receive from the Company a paper copy of any documents that were delivered electronically at no cost to him or her by contacting the Company by telephone or in writing. The Participant may revoke his or her consent to the electronic delivery of documents or may change the electronic mail address to which such documents are to be delivered (if the Participant has provided an electronic mail address) at any time by notifying the Company of such revoked consent or revised e-mail address by telephone, postal service or electronic mail. Finally, the Participant understands that he or she is not required to consent to electronic delivery of documents.

(e) The Participant may deliver any documents related to the Plan or these RSUs to the Company by e-mail or any other means of electronic delivery approved by the Administrator, but he or she must provide the Company or any designated third party administrator with a paper copy of any documents if his or her attempted electronic delivery of such documents fails.

(f) The Participant accepts that all good faith decisions or interpretations of the Administrator regarding the Plan and Awards under the Plan are binding, conclusive, and final. No member of the Administrator will be personally liable for any such decisions or interpretations.

(g) The Participant agrees that the Plan is established voluntarily by the Company, is discretionary in nature, and may be amended, suspended, or terminated by the Company at any time, to the extent permitted by the Plan.

(h) The Participant agrees that the grant of these RSUs is voluntary and occasional and does not create any contractual or other right to receive future grants of restricted stock units or benefits in lieu of restricted stock units, even if restricted stock units have been granted in the past.

(i) The Participant agrees that any decisions regarding future Awards will be in the Company's sole discretion.

(j) The Participant agrees that he or she is voluntarily participating in the Plan.

(k) The Participant agrees that these RSUs and any Shares acquired under these RSUs are not intended to replace any pension rights or compensation.

(l) The Participant agrees that these RSUs, any Shares acquired under these RSUs, and their income and value are not part of normal or expected compensation for any purpose, including for calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, bonuses, holiday pay, long-service awards, pension or retirement or welfare benefits, or similar payments.

(m) The Participant agrees that the future value of the Shares underlying these RSUs is unknown, indeterminable, and cannot be predicted with certainty.

(n) The Participant agrees that, for purposes of these RSUs, his or her engagement as a Service Provider is terminated as of the Termination of Status Date (regardless of the reason for such termination and whether or not the termination is later found to be invalid or in breach of employment laws in the jurisdiction where he or she is a Service Provider or the terms of his or her service agreement, if any), unless otherwise expressly provided in this Agreement or determined by the Administrator.

(o) The Participant agrees that any right to vest in these RSUs terminates as of the Termination of Status Date and will not be extended by any notice period (e.g., the period that he or she is a Service Provider would not include any contractual notice period or any period of "garden leave" or similar period mandated under employment laws (including common law, if applicable) in the jurisdiction where he or she is a Service Provider or by his or her service agreement or employment agreement, if any, unless he or she is providing bona fide services during such time).

(p) The Participant agrees that the Administrator has the exclusive discretion to determine when he or she is no longer actively providing services for purposes of these RSUs (including whether he or she is still considered to be providing services while on a leave of absence).

(q) The Participant agrees that no member of the Company Group is liable for any foreign exchange rate fluctuation between the Participant's local currency and the United States Dollar that may affect the value of these RSUs or of any amounts due to him or her from the payment of these RSUs or the subsequent sale of any Shares acquired upon such payment.

(r) The Participant agrees that he or she has no claim or entitlement to compensation or damages from any forfeiture of these RSUs resulting from the termination of his or her status as a Service Provider (for any reason whatsoever, whether or not later found to be invalid or in breach of employment laws in the jurisdiction where he or she is a Service Provider or the terms of his or her service agreement, if any), and in consideration of the grant of these RSUs to which he or she is otherwise not entitled, he or she irrevocably agrees never to institute any claim against the Company or any member of the Company Group, waives his or her ability (if any) to bring any such claim, and releases the Company and all members of the Company Group from any such claim. If any such claim is nevertheless allowed by a court of competent jurisdiction, then the Participant's participation in the Plan constitutes his or her irrevocable agreement to not pursue such claim and to execute any and all documents necessary to request dismissal or withdrawal of such claim.

11. Miscellaneous.

(a) **Address for Notices.** Any notice to be given to the Company under the terms of this Agreement must be addressed to the Company at Genprex, Inc., 100 Congress Avenue, Suite 2000, Austin, TX 78701 until the Company designates another address in writing.

(b) **Non-Transferability of RSUs.** These RSUs may not be transferred other than by will or the laws of descent or distribution.

(c) **Binding Agreement.** If any RSUs are transferred, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors, and assigns of the parties to this Agreement.

(d) **Additional Conditions to Issuance of Stock.** If the Company determines that the listing, registration, qualification, or rule compliance of the Common Stock on any securities exchange or under any state, federal, or foreign law or the tax code and related regulations or the consent or approval of any governmental regulatory authority is necessary or desirable as a condition to the issuance of Shares to the Participant (or his or her estate), the Company will try to meet the requirements of any such state, federal, or foreign law or securities exchange and to obtain any such consent or approval of any such governmental authority or securities exchange, but the Shares will not be issued until such conditions have been met in a manner acceptable to the Company.

(e) **Captions.** Captions provided in this Agreement are for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

(f) **Agreement Severable.** If any provision of this Agreement is held invalid or unenforceable, that provision will be severed from the remaining provisions of this Agreement and the invalidity or unenforceability will have no effect on the remainder of the Agreement.

(g) **Non-U.S. Appendix.** These RSUs are subject to any special terms and conditions set forth in any appendix to this Agreement for the Participant's country (the "**Appendix**"). If the Participant relocates to a country included in the Appendix, the special terms and conditions for that country will apply to him or her to the extent the Company determines that applying such terms and conditions is necessary or advisable for legal or administrative reasons.

(h) **Choice of Law; Choice of Forum.** The Plan, this Agreement, these RSUs, and all determinations made and actions taken under the Plan, to the extent not otherwise governed by the laws of the United States, will be governed by the laws of the State of Delaware without giving effect to principles of conflicts of law. For purposes of litigating any dispute that arises under the Plan, the Participant's acceptance of these RSUs is his or her consent to the jurisdiction of the State of Delaware and his or her agreement that any such litigation will be conducted in the Delaware Court of Chancery or the federal courts for the United States for the District of Delaware and no other courts, regardless of where he or she is performing services.

(i) **Modifications to the Agreement.** The Plan and this Agreement constitute the entire understanding of the parties on the subjects covered. The Participant

expressly warrants that he or she is not accepting this Agreement in reliance on any promises, representations, or inducements other than those contained herein. Modifications to this Agreement or the Plan can be made only in an express written contract executed by a duly authorized officer of the Company. The Company reserves the right to revise the Agreement as it deems necessary or advisable, in its sole discretion and without the consent of the Participant, to comply with Code Section 409A, to otherwise avoid imposition of any additional tax or income recognition under Code Section 409A in connection with these RSUs, or to comply with other Applicable Laws.

(j) **Waiver.** The Participant acknowledges that a waiver by the Company of a breach of any provision of this Agreement will not operate or be construed as a waiver of any other provision of this Agreement or of any subsequent breach of this Agreement by him or her.

EXHIBIT B

APPENDIX TO RESTRICTED STOCK UNIT AGREEMENT

Terms and Conditions

This Appendix to Restricted Stock Unit Agreement (the "**Appendix**") includes additional terms and conditions that govern these RSUs granted to the Participant under the Plan if he or she resides in one of the countries listed below on the Grant Date or he or she moves to one of the listed countries.

Notifications

This Appendix may also include information regarding exchange controls and certain other issues of which the Participant should be aware with respect to participation in the Plan. The information is based on the securities, exchange control, and other Applicable Laws in effect in the respective countries as of September 1, 2017. Such Applicable Laws are often complex and change frequently. As a result, the Company strongly recommends that the Participant not rely on the information in this Appendix as the only source of information relating to the consequences of participation in the Plan because the information may be out of date at the time the Participant sells Shares acquired under the Plan.

In addition, the information contained in this Appendix is general in nature and may not apply to the Participant's particular situation, and the Company is not in a position to assure him or her of a particular result. The Participant is advised to seek appropriate professional advice as to how the Applicable Laws in his or her country may apply to his or her situation.

Finally, if the Participant is a citizen or resident of a country other than the one in which he or she is currently working, transfers employment after these RSUs are granted, or is considered a resident of another country for local law purposes, the information in this Appendix may not apply to him or her, and the Administrator will determine to what extent the terms and conditions in this Appendix apply.

Exhibit 10.4

GENPREX, INC.

2018 EMPLOYEE STOCK PURCHASE PLAN

1. Purpose. The purpose of the Plan is to provide employees of the Company and its Designated Subsidiaries with an opportunity to purchase Common Stock through accumulated payroll deductions. The Company's intention is to have the Plan qualify as an "employee stock purchase plan" under Section 423 of the Code. The provisions of the Plan, accordingly, will be construed so as to extend and limit Plan participation in a uniform and nondiscriminatory basis consistent with the requirements of Section 423 of the Code.

2. Definitions.

(a) "Administrator" means the Board or any Committee designated by the Board to administer the Plan pursuant to Section 14.

(b) "Applicable Laws" means the requirements relating to the administration of equity-based awards under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any foreign country or jurisdiction where Awards are, or will be, granted under the Plan.

(c) "Board" means the Board of Directors of the Company.

(d) "Change in Control" means the occurrence of any of the following events:

(i) Any "person" (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) becomes the "beneficial owner" (as defined in Rule 13d-3 of the Exchange Act), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the total voting power represented by the Company's then outstanding voting securities; or

(ii) The consummation of the sale or disposition by the Company of all or substantially all of the Company's assets; or

(iii) The consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity or its parent outstanding immediately after such merger or consolidation; or

(iv) A change in the composition of the Board occurring within a two (2) year period, as a result of which less than a majority of the Directors are Incumbent Directors. "Incumbent Directors" means Directors who either (A) are Directors as of the effective date of the Plan, or (B) are elected, or nominated for election, to the Board with the affirmative votes of at least

a majority of the Directors at the time of such election or nomination (but will not include an individual whose election or nomination is in connection with an actual or threatened proxy contest relating to the election of Directors to the Company).

(e) "Code" means the Internal Revenue Code of 1986, as amended. Any reference to a section of the Code herein will be a reference to any successor or amended section of the Code.

(f) "Committee" means a committee of the Board appointed in accordance with Section 14 hereof.

(g) "Common Stock" means the common stock of the Company.

(h) "Company" means Genprex, Inc., a Delaware corporation.

(i) "Compensation" means an Employee's base straight time gross earnings, commissions (to the extent such commissions are an integral, recurring part of compensation), overtime and shift premium, but exclusive of payments for incentive compensation, bonuses and other compensation.

(j) "Designated Subsidiary" means any Subsidiary that has been designated by the Administrator from time to time in its sole discretion as eligible to participate in the Plan.

(k) "Director" means a member of the Board.

(l) "Eligible Employee" means any individual who is a common law employee of an Employer and is customarily employed for at least twenty (20) hours per week and more than five (5) months in any calendar year by the Employer. For purposes of the Plan, the employment relationship will be treated as continuing intact while the individual is on sick leave or other leave of absence that the Employer approves. Where the period of leave exceeds ninety (90) days and the individual's right to reemployment is not guaranteed either by statute or by contract, the employment relationship will be deemed to have terminated on the ninety-first (91st) day of such leave. The Administrator, in its discretion, from time to time may, prior to an Offering Date for all options to be granted on such Offering Date, determine (on a uniform and nondiscriminatory basis) that the definition of Eligible Employee will or will not include an individual if he or she: (i) has not completed at least two (2) years of service since his or her last hire date (or such lesser period of time as may be determined by the Administrator in its discretion), (ii) customarily works not more than twenty (20) hours per week (or such lesser period of time as may be determined by the Administrator in its discretion), (iii) customarily works not more than five (5) months per calendar year (or such lesser period of time as may be determined by the Administrator in its discretion), (iv) is an officer or other manager, or (v) is a highly compensated employee under Section 414(q) of the Code.

(m) "Employer" means any one or all of the Company and its Designated Subsidiaries.

(n) "Exchange Act" means the Securities Exchange Act of 1934, as amended, including the rules and regulations promulgated thereunder.

(o) "Exercise Date" means the first Trading Day on or after May 15 and November 15 of each year. The first Exercise Date under the Plan will be determined by the Board.

(p) "Fair Market Value" means, as of any date and unless the Administrator determines otherwise, the value of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq Global Select Market, the Nasdaq Global Market or the Nasdaq Capital Market of The Nasdaq Stock Market, its Fair Market Value will be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on such exchange or system on the date of determination, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value will be the mean of the closing bid and asked prices for the Common Stock on the date of determination, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(iii) In the absence of an established market for the Common Stock, the Fair Market Value thereof will be determined in good faith by the Administrator; or

(iv) For purposes of the Offering Date of the first Offering Period under the Plan, the Fair Market Value will be the initial price to the public as set forth in the final prospectus included within the registration statement on Form S-1 filed with the Securities and Exchange Commission for the initial public offering of the Common Stock (the "Registration Statement").

(q) "Fiscal Year" means the fiscal year of the Company.

(r) "New Exercise Date" means a new Exercise Date say by shortening any Offering Period then in progress.

(s) "Offering Date" means the first Trading Day of each Offering Period. "Offering Periods" means the periods of approximately twelve (12) months during which an option granted pursuant to the Plan may be exercised, (i) commencing on the first Trading Day on or after May 15 of each year and terminating on the first Trading Day on or following May 15, approximately twelve (12) months later, and (ii) commencing on the first Trading Day on or after November 15 of each year and terminating on the first Trading Day on or following November 15, approximately twelve (12) months later; provided, however, that the first Offering Period under the Plan will commence when the Administrator deems it appropriate to commence operating the Plan and will end on the first Trading Day determined by the Board; and provided, further, that the second Offering Period under the Plan will commence on the first Trading Day determined by the Board and will end on the first Trading Day determined by the Board. The duration and timing of Offering Periods may be changed pursuant to Sections 4, 19, and 20.

(t) "Parent" means a "parent corporation," whether now or hereafter existing, as defined in Section 424(e) of the Code.

(u) "Plan" means this Genprex, Inc. 2018 Employee Stock Purchase Plan.

(v) "Purchase Period" means the period during an Offering Period which shares of Common Stock may be purchased on a participant's behalf in accordance with the terms of the Plan. Unless and until the Administrator provides otherwise, the Purchase Period will mean the approximately six (6) month period commencing on one Exercise Date and ending with the next Exercise Date, except that the first Purchase Period of any Offering Period will commence on the Enrollment Date and end with the next Exercise Date.

(w) "Purchase Price" means an amount equal to eighty-five percent (85%) of the Fair Market Value of a share of Common Stock on the Offering Date or on the Exercise Date, whichever is lower; provided however, that the Purchase Price may be determined for subsequent Offering Periods by the Administrator subject to compliance with Section 423 of the Code (or any successor rule or provision or any other applicable law, regulation or stock exchange rule) or pursuant to Section 20.

(x) "Subsidiary" means a "subsidiary corporation," whether now or hereafter existing, as defined in Section 424(f) of the Code.

(y) "Trading Day" means a day on which the national stock exchange upon which the Common Stock is listed is open for trading.

3. Eligibility.

(a) First Offering Period. Any individual who is an Eligible Employee immediately prior to the first Offering Period will be automatically enrolled in the first Offering Period.

(b) Subsequent Offering Periods. Any Eligible Employee on a given Offering Date subsequent to the first Offering Period will be eligible to participate in the Plan, subject to the requirements of Section 5.

(c) Limitations. Any provisions of the Plan to the contrary notwithstanding, no Eligible Employee will be granted an option under the Plan (i) to the extent that, immediately after the grant, such Eligible Employee (or any other person whose stock would be attributed to such Eligible Employee pursuant to Section 424(d) of the Code) would own capital stock of the Company or any Parent or Subsidiary of the Company and/or hold outstanding options to purchase such stock possessing five percent (5%) or more of the total combined voting power or value of all classes of the capital stock of the Company or of any Parent or Subsidiary of the Company, or (ii) to the extent that his or her rights to purchase stock under all employee stock purchase plans (as defined in Section 423 of the Code) of the Company or any Parent or Subsidiary of the Company accrues at a rate which exceeds twenty-five thousand dollars ($25,000) worth of stock (determined at the Fair Market Value of the stock at the time such option is granted) for each calendar year in which such option is outstanding at any time.

4. Offering Periods. The Plan will be implemented by consecutive, overlapping Offering Periods with a new Offering Period commencing on the first Trading Day on or after May 15 and November 15 of each year, or on such other date as the Administrator will determine;

provided, however, that the first Offering Period under the Plan will commence with the first Trading Day on or after the date upon which the Company's Registration Statement is declared effective by the Securities and Exchange Commission and end on the first Trading Day on or after the earlier of (i) a date established by the Board, or (ii) twenty-seven (27) months from the beginning of the first Offering Period. The Administrator will have the power to change the duration of Offering Periods (including the commencement dates thereof) with respect to future offerings without stockholder approval if such change is announced prior to the scheduled beginning of the first Offering Period to be affected thereafter.

5. Participation.

(a) First Offering Period. An Eligible Employee will be entitled to continue to participate in the first Offering Period pursuant to Section 3(a) only if such individual submits a subscription agreement authorizing payroll deductions in a form determined by the Administrator (which may be similar to the form attached hereto as Exhibit A) to the Company's designated plan administrator (i) no earlier than the effective date of the Form S-8 registration statement with respect to the issuance of Common Stock under this Plan and (ii) no later than ten (10) business days following the effective date of such S-8 registration statement or such other period of time as the Administrator may determine (the "Enrollment Window"). An Eligible Employee's failure to submit the subscription agreement during the Enrollment Window will result in the automatic termination of such individual's participation in the first Offering Period.

(b) Subsequent Offering Periods. An Eligible Employee may participate in the Plan pursuant to Section 3(b) by (i) submitting to the Company's payroll office (or its designee), on or before a date prescribed by the Administrator prior to an applicable Offering Date, a properly completed subscription agreement authorizing payroll deductions in the form provided by the Administrator for such purpose, or (ii) following an electronic or other enrollment procedure prescribed by the Administrator.

6. Payroll Deductions.

(a) At the time a participant enrolls in the Plan pursuant to Section 5, he or she will elect to have payroll deductions made on each pay day during the Offering Period in an amount not exceeding fifteen percent (15%) of the Compensation which he or she receives on each pay day during the Offering Period; provided, however, that should a pay day occur on an Exercise Date, a participant will have the payroll deductions made on such day applied to his or her account under the subsequent Purchase or Offering Period. A participant's subscription agreement will remain in effect for successive Offering Periods unless terminated as provided in Section 10 hereof.

(b) Payroll deductions for a participant will commence on the first pay day following the Offering Date and will end on the last pay day prior to the Exercise Date of such Offering Period to which such authorization is applicable, unless sooner terminated by the participant as provided in Section 10 hereof; provided, however, that for the first Offering Period, payroll deductions will commence on the first pay day on or following the end of the Enrollment Window.

(c) All payroll deductions made for a participant will be credited to his or her account under the Plan and will be withheld in whole percentages only. A participant may not make any additional payments into such account.

(d) A participant may discontinue his or her participation in the Plan as provided in Section 10, or may increase or decrease the rate of his or her payroll deductions during the Offering Period by (i) properly completing and submitting to the Company's payroll office (or its designee), on or before a date prescribed by the Administrator prior to an applicable Exercise Date, a new subscription agreement authorizing the change in payroll deduction rate in the form provided by the Administrator for such purpose, or (ii) following an electronic or other procedure prescribed by the Administrator; provided, however, that a participant may only make one payroll deduction change during each Purchase Period. If a participant has not followed such procedures to change the rate of payroll deductions, the rate of his or her payroll deductions will continue at the originally elected rate throughout the Offering Period and future Offering Periods (unless terminated as provided in Section 10). The Administrator may, in its sole discretion, limit the nature and/or number of payroll deduction rate changes that may be made by participants during any Offering Period. Any change in payroll deduction rate made pursuant to this Section 6(d) will be effective as of the first full payroll period following five (5) business days after the date on which the change is made by the participant (unless the Administrator, in its sole discretion, elects to process a given change in payroll deduction rate more quickly).

(e) Notwithstanding the foregoing, to the extent necessary to comply with Section 423(b)(8) of the Code and Section 3(c), a participant's payroll deductions may be decreased to zero percent (0%) at any time during a Purchase Period. Subject to Section 423(b)(8) of the Code and Section 3(c) hereof, payroll deductions will recommence at the rate originally elected by the participant effective as of the beginning of the first Purchase Period which is scheduled to end in the following calendar year, unless terminated by the participant as provided in Section 10.

(f) At the time the option is exercised, in whole or in part, or at the time some or all of the Common Stock issued under the Plan is disposed of, the participant must make adequate provision for the Company's or Employer's federal, state, or any other tax liability payable to any authority, national insurance, social security or other tax withholding obligations, if any, which arise upon the exercise of the option or the disposition of the Common Stock. At any time, the Company or the Employer may, but will not be obligated to, withhold from the participant's compensation the amount necessary for the Company or the Employer to meet applicable withholding obligations, including any withholding required to make available to the Company or the Employer any tax deductions or benefits attributable to sale or early disposition of Common Stock by the Eligible Employee.

7. Grant of Option. On the Offering Date of each Offering Period, each Eligible Employee participating in such Offering Period will be granted an option to purchase on each Exercise Date during such Offering Period (at the applicable Purchase Price) up to a number of shares of Common Stock determined by dividing such Eligible Employee's payroll deductions accumulated prior to such Exercise Date and retained in the Eligible Employee's account as of the Exercise Date by the applicable Purchase Price; provided that in no event will an Eligible Employee be permitted to purchase during each Purchase Period more than 2500 shares of the Common Stock (subject to any adjustment pursuant to Section 19), and provided further that such purchase will be

subject to the limitations set forth in Sections 3(c) and 13. The Eligible Employee may accept the grant of such option with respect to the first Offering Period by submitting a properly completed subscription agreement in accordance with the requirements of Section 5(a) on or before the last day of the Enrollment Window, and (ii) with respect to any future Offering Period under the Plan, by electing to participate in the Plan in accordance with the requirements of Section 5(b). The Administrator may, for future Offering Periods, increase or decrease, in its absolute discretion, the maximum number of shares of Common Stock that an Eligible Employee may purchase during each Purchase Period Offering Period. Exercise of the option will occur as provided in Section 8, unless the participant has withdrawn pursuant to Section 10. The option will expire on the last day of the Offering Period.

8. Exercise of Option.

(a) Unless a participant withdraws from the Plan as provided in Section 10, his or her option for the purchase of shares of Common Stock will be exercised automatically on the Exercise Date, and the maximum number of full shares subject to option will be purchased for such participant at the applicable Purchase Price with the accumulated payroll deductions in his or her account. No fractional shares of Common Stock will be purchased; any payroll deductions accumulated in a participant's account which are not sufficient to purchase a full share will be retained in the participant's account for the subsequent Purchase Period or Offering Period, subject to earlier withdrawal by the participant as provided in Section 10. Any other funds left over in a participant's account after the Exercise Date will be returned to the participant. During a participant's lifetime, a participant's option to purchase shares hereunder is exercisable only by him or her.

(b) If the Administrator determines that, on a given Exercise Date, the number of shares of Common Stock with respect to which options are to be exercised may exceed (i) the number of shares of Common Stock that were available for sale under the Plan on the Offering Date of the applicable Offering Period, or (ii) the number of shares of Common Stock available for sale under the Plan on such Exercise Date, the Administrator may in its sole discretion provide that the Company will make a pro rata allocation of the shares of Common Stock available for purchase on such Offering Date or Exercise Date, as applicable, in as uniform a manner as will be practicable and as it will determine in its sole discretion to be equitable among all participants exercising options to purchase Common Stock on such Exercise Date, and continue all Offering Periods then in effect or terminate all Offering Periods then in effect pursuant to Section 20. The Company may make a pro rata allocation of the shares available on the Offering Date of any applicable Offering Period pursuant to the preceding sentence, notwithstanding any authorization of additional shares for issuance under the Plan by the Company's stockholders subsequent to such Offering Date.

9. Delivery. As soon as reasonably practicable after each Exercise Date on which a purchase of shares of Common Stock occurs, the Company will arrange the delivery to each participant the shares purchased upon exercise of his or her option in a form determined by the Administrator (in its sole discretion) and pursuant to rules established by the Administrator. The Company may permit or require that shares be deposited directly with a broker designated by the Company or to a designated agent of the Company, and the Company may utilize electronic or automated methods of share transfer. The Company may require that shares be retained with such broker or agent for a designated period of time and/or may establish other procedures to permit

tracking of disqualifying dispositions of such shares. No participant will have any voting, dividend, or other stockholder rights with respect to shares of Common Stock subject to any option granted under the Plan until such shares have been purchased and delivered to the participant as provided in this Section 9.

10. Withdrawal.

(a) A participant may withdraw all but not less than all the payroll deductions credited to his or her account and not yet used to exercise his or her option under the Plan at any time by (i) submitting to the Company's payroll office (or its designee) a written notice of withdrawal in the form prescribed by the Administrator for such purpose, or (ii) following an electronic or other withdrawal procedure prescribed by the Administrator. All of the participant's payroll deductions credited to his or her account will be paid to such participant promptly after receipt of notice of withdrawal and such participant's option for the Offering Period will be automatically terminated, and no further payroll deductions for the purchase of shares will be made for such Offering Period. If a participant withdraws from an Offering Period, payroll deductions will not resume at the beginning of the succeeding Offering Period, unless the participant re-enrolls in the Plan in accordance with the provisions of Section 5.

(b) A participant's withdrawal from an Offering Period will not have any effect upon his or her eligibility to participate in any similar plan which may hereafter be adopted by the Company or in succeeding Offering Periods which commence after the termination of the Offering Period from which the participant withdraws.

11. Termination of Employment. Upon a participant's ceasing to be an Eligible Employee, for any reason, he or she will be deemed to have elected to withdraw from the Plan and the payroll deductions credited to such participant's account during the Offering Period but not yet used to purchase shares of Common Stock under the Plan will be returned to such participant or, in the case of his or her death, to the person or persons entitled thereto under Section 15, and such participant's option will be automatically terminated.

12. Interest. No interest will accrue on the payroll deductions of a participant in the Plan.

13. Stock.

(a) Subject to adjustment upon changes in capitalization of the Company as provided in Section 19 hereof, the maximum number of shares of Common Stock which will be made available for sale under the Plan will be 208,050 shares, plus an annual increase to be added on the first day of each Fiscal Year beginning with the 2019 Fiscal Year, equal to the lesser of (i) two percent (2%) of the outstanding shares of Common Stock on such date or (ii) an amount determined by the Administrator.

(b) Until the shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), a participant will only have the rights of an unsecured creditor with respect to such shares, and no right to vote or receive dividends or any other rights as a stockholder will exist with respect to such shares.

(c) Shares of Common Stock to be delivered to a participant under the Plan will be registered in the name of the participant or in the name of the participant and his or her spouse.

14. Administration. The Plan will be administered by the Board or a Committee appointed by the Board, which Committee will be constituted to comply with Applicable Laws. The Administrator will have full and exclusive discretionary authority to construe, interpret and apply the terms of the Plan, to determine eligibility and to adjudicate all disputed claims filed under the Plan. Every finding, decision and determination made by the Administrator will, to the full extent permitted by law, be final and binding upon all parties. Notwithstanding any provision to the contrary in this Plan, the Administrator may adopt rules or procedures relating to the operation and administration of the Plan to accommodate the specific requirements of local laws and procedures for jurisdictions outside of the United States. Without limiting the generality of the foregoing, the Administrator is specifically authorized to adopt rules and procedures regarding eligibility to participate, the definition of Compensation, handling of payroll deductions, making of contributions to the Plan (including, without limitation, in forms other than payroll deductions), establishment of bank or trust accounts to hold payroll deductions, payment of interest, conversion of local currency, obligations to pay payroll tax, determination of beneficiary designation requirements, withholding procedures and handling of stock certificates which vary with local requirements.

15. Designation of Beneficiary.

(a) A participant may file a designation of a beneficiary who is to receive any shares of Common Stock and cash, if any, from the participant's account under the Plan in the event of such participant's death subsequent to an Exercise Date on which the option is exercised but prior to delivery to such participant of such shares and cash. In addition, a participant may file a designation of a beneficiary who is to receive any cash from the participant's account under the Plan in the event of such participant's death prior to exercise of the option. If a participant is married and the designated beneficiary is not the spouse, spousal consent will be required for such designation to be effective.

(b) Such designation of beneficiary may be changed by the participant at any time by notice in a form determined by the Administrator. In the event of the death of a participant and in the absence of a beneficiary validly designated under the Plan who is living at the time of such participant's death, the Company will deliver such shares and/or cash to the executor or administrator of the estate of the participant, or if no such executor or administrator has been appointed (to the knowledge of the Company), the Company, in its discretion, may deliver such shares and/or cash to the spouse or to any one or more dependents or relatives of the participant, or if no spouse, dependent or relative is known to the Company, then to such other person as the Company may designate.

(c) All beneficiary designations will be in such form and manner as the Administrator may designate from time to time.

16. Transferability. Neither payroll deductions credited to a participant's account nor any rights with regard to the exercise of an option or to receive shares of Common Stock under the Plan may be assigned, transferred, pledged or otherwise disposed of in any way (other than by will, the laws of descent and distribution or as provided in Section 15 hereof) by the participant. Any such

attempt at assignment, transfer, pledge or other disposition will be without effect, except that the Company may treat such act as an election to withdraw funds from an Offering Period in accordance with Section 10 hereof.

17. Use of Funds. The Company may use all payroll deductions received or held by it under the Plan for any corporate purpose, and the Company will not be obligated to segregate such payroll deductions. Until shares of Common Stock are issued, participants will only have the rights of an unsecured creditor with respect to such shares.

18. Reports. Individual accounts will be maintained for each participant in the Plan. Statements of account will be given to participating Eligible Employees at least annually, which statements will set forth the amounts of payroll deductions, the Purchase Price, the number of shares of Common Stock purchased and the remaining cash balance, if any.

19. Adjustments, Dissolution, Liquidation, Merger or Change in Control.

(a) Adjustments. In the event that any dividend or other distribution (whether in the form of cash, Common Stock, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Common Stock or other securities of the Company, or other change in the corporate structure of the Company affecting the Common Stock occurs, the Administrator, in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan, will, in such manner as it may deem equitable, adjust the number and class of Common Stock which may be delivered under the Plan, the Purchase Price per share and the number of shares of Common Stock covered by each option under the Plan which has not yet been exercised, and the numerical limits of Sections 7 and 13.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, any Offering Period then in progress will be shortened by setting a New Exercise Date, and will terminate immediately prior to the consummation of such proposed dissolution or liquidation, unless provided otherwise by the Administrator. The New Exercise Date will be before the date of the Company's proposed dissolution or liquidation. The Administrator will notify each participant in writing, at least ten (10) business days prior to the New Exercise Date, that the Exercise Date for the participant's option has been changed to the New Exercise Date and that the participant's option will be exercised automatically on the New Exercise Date, unless prior to such date the participant has withdrawn from the Offering Period as provided in Section 10 hereof.

(c) Merger or Change in Control. In the event of a merger or Change in Control, each outstanding option will be assumed or an equivalent option substituted by the successor corporation or a Parent or Subsidiary of the successor corporation. In the event that the successor corporation refuses to assume or substitute for the option, the Offering Period with respect to which such option relates will be shortened by setting a New Exercise Date and will end on the New Exercise Date. The New Exercise Date will occur before the date of the Company's proposed merger or Change in Control. The Administrator will notify each participant in writing prior to the New Exercise Date, that the Exercise Date for the participant's option has been changed to the New Exercise Date and that the participant's option will be exercised automatically on the New Exercise

Date, unless prior to such date the participant has withdrawn from the Offering Period as provided in Section 10 hereof.

20. Amendment or Termination.

(a) The Administrator, in its sole discretion, may amend, suspend, or terminate the Plan, or any part thereof, at any time and for any reason. If the Plan is terminated, the Administrator, in its discretion, may elect to terminate all outstanding Offering Periods either immediately or upon completion of the purchase of shares of Common Stock on the next Exercise Date (which may be sooner than originally scheduled, if determined by the Administrator in its discretion), or may elect to permit Offering Periods to expire in accordance with their terms (and subject to any adjustment pursuant to Section 19). If the Offering Periods are terminated prior to expiration, all amounts then credited to participants' accounts which have not been used to purchase shares of Common Stock will be returned to the participants (without interest thereon, except as otherwise required under local laws) as soon as administratively practicable.

(b) Without stockholder consent and without limiting Section 20(a), the Administrator will be entitled to change the Offering Periods, limit the frequency and/or number of changes in the amount withheld during an Offering Period, establish the exchange ratio applicable to amounts withheld in a currency other than U.S. dollars, permit payroll withholding in excess of the amount designated by a participant in order to adjust for delays or mistakes in the Company's processing of properly completed withholding elections, establish reasonable waiting and adjustment periods and/or accounting and crediting procedures to ensure that amounts applied toward the purchase of Common Stock for each participant properly correspond with amounts withheld from the participant's Compensation, and establish such other limitations or procedures as the Administrator determines in its sole discretion advisable which are consistent with the Plan.

(c) In the event the Administrator determines that the ongoing operation of the Plan may result in unfavorable financial accounting consequences, the Administrator may, in its discretion and, to the extent necessary or desirable, modify, amend or terminate the Plan to reduce or eliminate such accounting consequence including, but not limited to:

(i) amending the Plan to conform with the safe harbor definition under Statement of Financial Accounting Standards 123(R), including with respect to an Offering Period underway at the time;

(ii) altering the Purchase Price for any Offering Period including an Offering Period underway at the time of the change in Purchase Price;

(iii) shortening any Offering Period by setting a New Exercise Date, including an Offering Period underway at the time of the Administrator action;

(iv) reducing the maximum percentage of Compensation a participant may elect to set aside as payroll deductions; and

(v) reducing the maximum number of Shares a participant may purchase during any Offering Period or Purchase Period.

Such modifications or amendments will not require stockholder approval or the consent of any Plan participants.

21. Notices. All notices or other communications by a participant to the Company under or in connection with the Plan will be deemed to have been duly given when received in the form and manner specified by the Company at the location, or by the person, designated by the Company for the receipt thereof.

22. Conditions Upon Issuance of Shares. Shares of Common Stock will not be issued with respect to an option unless the exercise of such option and the issuance and delivery of such shares pursuant thereto will comply with all applicable provisions of law, domestic or foreign, including, without limitation, the Securities Act of 1933, as amended, the Exchange Act, the rules and regulations promulgated thereunder, and the requirements of any stock exchange upon which the shares may then be listed, and will be further subject to the approval of counsel for the Company with respect to such compliance.

As a condition to the exercise of an option, the Company may require the person exercising such option to represent and warrant at the time of any such exercise that the shares are being purchased only for investment and without any present intention to sell or distribute such shares if, in the opinion of counsel for the Company, such a representation is required by any of the aforementioned applicable provisions of law.

23. Term of Plan. The Plan will become effective upon the earlier to occur of its adoption by the Board or its approval by the stockholders of the Company. It will continue in effect for a term of twenty (20) years, unless sooner terminated under Section 20.

24. Stockholder Approval. The Plan will be subject to approval by the stockholders of the Company within twelve (12) months after the date the Plan is adopted by the Board. Such stockholder approval will be obtained in the manner and to the degree required under Applicable Laws.

25. Automatic Transfer to Low Price Offering Period. To the extent permitted by Applicable Laws, if the Fair Market Value of the Common Stock on any Exercise Date in an Offering Period is lower than the Fair Market Value of the Common Stock on the Offering Date of such Offering Period, then all participants in such Offering Period will be automatically withdrawn from such Offering Period immediately after the exercise of their option on such Exercise Date and automatically re-enrolled in the immediately following Offering Period.

EXHIBIT A

GENPREX, INC.

2018 EMPLOYEE STOCK PURCHASE PLAN

SUBSCRIPTION AGREEMENT

_____ Original Application Offering Date: _____
_____ Change in Payroll Deduction Rate
_____ Change of Beneficiary(ies)

1. _____ hereby elects to participate in the Genprex, Inc. 2018 Employee Stock Purchase Plan (the "Plan") and subscribes to purchase shares of the Company's Common Stock in accordance with this Subscription Agreement and the Plan.

2. I hereby authorize payroll deductions from each paycheck in the amount of ____% of my Compensation on each payday (from 0 to 15%) during the Offering Period in accordance with the Plan. (Please note that no fractional percentages are permitted.)

3. I understand that said payroll deductions will be accumulated for the purchase of shares of Common Stock at the applicable Purchase Price determined in accordance with the Plan. I understand that if I do not withdraw from an Offering Period, any accumulated payroll deductions will be used to automatically exercise my option and purchase Common Stock under the Plan.

4. I have received a copy of the complete Plan and its accompanying prospectus. I understand that my participation in the Plan is in all respects subject to the terms of the Plan.

5. Shares of Common Stock purchased for me under the Plan should be issued in the name(s) of (Eligible Employee or Eligible Employee and Spouse only).

6. I understand that if I dispose of any shares received by me pursuant to the Employee Stock Purchase Plan within two (2) years after the Offering Date (the first day of the Offering Period during which I purchased such shares) or one (1) year after the Exercise Date, I will be treated for federal income tax purposes as having received ordinary income at the time of such disposition in an amount equal to the excess of the fair market value of the shares at the time such shares were purchased by me over the price which I paid for the shares. I hereby agree to notify the Company in writing within thirty (30) days after the date of any disposition of my shares and I will make adequate provision for Federal, state or other tax withholding obligations, if any, which arise upon the disposition of the Common Stock. The Company may, but will not be obligated to, withhold from my compensation the amount necessary to meet any applicable withholding obligation including any withholding necessary

to make available to the Company any tax deductions or benefits attributable to sale or early disposition of Common Stock by me. If I dispose of such shares at any time after the expiration of the two (2)-year and one (1)-year holding periods, I understand that I will be treated for federal income tax purposes as having received income only at the time of such disposition, and that such income will be taxed as ordinary income only to the extent of an amount equal to the lesser of (a) the excess of the fair market value of the shares at the time of such disposition over the purchase price which I paid for the shares, or (b) 15% of the fair market value of the shares on the first day of the Offering Period. The remainder of the gain, if any, recognized on such disposition will be taxed as capital gain.

7. I hereby agree to be bound by the terms of the Plan. The effectiveness of this Subscription Agreement is dependent upon my eligibility to participate in the Plan.

8. In the event of my death, I hereby designate the following as my beneficiary(ies) to receive all payments and shares due me under the Employee Stock Purchase Plan:

NAME: (please print) _____
First Middle Last

_____ _____
Relationship

_____ _____
Percentage Benefit

_____
Address

NAME: (please print) _____
First Middle Last

_____ _____
Relationship

_____ _____
Percentage of Benefit

_____
Address

Employee's Social Security Number: _____

Employee's Address: _____

_____

_____

I UNDERSTAND THAT THIS SUBSCRIPTION AGREEMENT WILL REMAIN IN EFFECT THROUGHOUT SUCCESSIVE OFFERING PERIODS UNLESS TERMINATED BY ME.

Dated: _____ _____

Signature of Employee

Dated: _____ _____

Spouse's Signature (If beneficiary other than spouse)

EXHIBIT B

GENPREX, INC.

2018 EMPLOYEE STOCK PURCHASE PLAN

NOTICE OF WITHDRAWAL

The undersigned participant in the Offering Period of the Genprex, Inc. 2018 Employee Stock Purchase Plan that began on _____, _____ (the "Offering Date") hereby notifies the Company that he or she hereby withdraws from the Offering Period. He or she hereby directs the Company to pay to the undersigned as promptly as practicable all the payroll deductions credited to his or her account with respect to such Offering Period. The undersigned understands and agrees that his or her option for such Offering Period will be automatically terminated. The undersigned understands further that no further payroll deductions will be made for the purchase of shares in the current Offering Period and the undersigned will be eligible to participate in succeeding Offering Periods only by delivering to the Company a new Subscription Agreement.

Name and Address of Participant:

_____

_____

_____

Signature:

_____

_____

Date: _____

Exhibit 10.16

EXECUTIVE EMPLOYMENT AGREEMENT

This Executive Employment Agreement (the "***Agreement***") is entered into between Genprex, Inc. ("***Company***") and Rodney Varner ("***Employee***"). This Agreement is effective as of the effective date provided below ("***Effective Date***").

In consideration of the promises and the terms and conditions set forth in this Agreement, the parties agree as follows:

1. Position and Duties. As of the Effective Date, Employee will serve as Chairman of the Board and Chief Executive Officer of the Company and will report to the Company's Board of Directors. Employee will render such business and professional services in the performance of his duties, consistent with Employee's position, as shall reasonably be assigned to him by the Company.

2. Election to the Board. Employee will continue to serve on the Company's Board of Directors (the "***Board***") following the Effective Date. Employee may be removed from the Board in accordance with applicable law and the Company's bylaws.

3. Exclusive Service. Employee will be expected to devote his full working time and attention to the business of the Company, and, except as provided herein, will not render services to any other business without the prior approval of the Board or, directly or indirectly, engage or participate in any business that is competitive in any manner with the business of the Company. Employee will also be expected to comply with and be bound by the Company's operating policies, procedures and practices that are from time to time in effect during the term of his employment. Employee is a lawyer who is winding down his private law practice. Employee is permitted to perform legal services for those who were clients before the effective date of this Agreement; however, it is expected that such services will not consume more than ten (10) hours per month on average of Employee's time. Employee is also permitted to manage investments on behalf of himself and his family owned entities.

4. At-Will Employment. Employee and the Company understand and acknowledge that Employee's employment with the Company constitutes "at-will" employment, and the employment relationship may be terminated at any time, with or without cause and with or without notice.

5. Compensation and Benefits.

5.1 Base Salary. While employed by the Company pursuant to this Agreement, the Company shall pay the Employee an annual base salary of $350,000.00 (the "***Base Salary***"), payable in accordance with the Company's normal payroll practices. The Company shall periodically review (at least annually) Employee's compensation and benefits, provided that any changes thereto shall be determined by the Company in its sole and absolute discretion.

5.2 Management by Objectives Bonus. Employee will also be eligible to receive an annual cash bonus in an amount determined by the Board (the "***Target Bonus***"), upon the achievement of performance objectives mutually agreed upon between Employee and the Board within Ninety (90) days following the Effective Date. Thereafter, Employee will be eligible to receive an annual bonus in such amount and upon such terms as shall be determined by the Board.

5.3 Employee Benefits. Employee shall be eligible to participate in all employee benefit plans and arrangements, including, but not limited to, medical, dental, vision and long-term disability insurance

benefits and arrangements, as are made available by the Company to its other senior executives, subject to the terms and conditions thereof.

5.4 **Vacation.** Employee will be entitled to paid vacation and holidays pursuant to the terms of the Company's vacation policy as may exist from time to time.

6. **Equity Grants.** On or following commencement of Employee's employment and subject to approval of the Board, the Company may from time to time grant Employee options or other forms of equity under the Company's 2018 Equity Incentive Plan ("Plan") upon such terms and conditions as may be determined by the Board in its sole discretion.

7. **Expenses.** The Company will, in accordance with applicable Company policies and guidelines, reimburse Employee for all reasonable and necessary expenses incurred by Employee in connection with his performance of services on behalf of the Company. Without limiting the foregoing, expenses will be deemed reasonable if they are permitted by the Company's written policies.

8. **Inventions and Proprietary Information, Non-Solicitation.**

8.1 **Proprietary Information and Inventions Agreement.** Employee hereby agrees to execute the Company Confidential Information, Assignment of Inventions, and Noncompetition Agreement attached hereto as Exhibit A.

9. **Definitions.**

9.1 **Cause.** For purposes of this Agreement, "***Cause***" means (i) a determination by the Board that Employee's performance is unsatisfactory after there has been delivered to Employee a written demand for performance which describes the specific deficiencies in Employee's performance and the specific manner in which Employee's performance must be improved, and which provides thirty (30) business days from the date of notice to remedy such performance deficiencies; (ii) Employee's conviction of or plea of nolo contendere to a felony or a crime involving moral turpitude which the Board reasonably finds has had or will have a detrimental effect on the Company's reputation or business, (iii) Employee engaging in an act of gross negligence or willful misconduct in the performance of his employment obligations and duties that materially harms the Company, (iv) Employee's committing an act of fraud against, material misconduct or willful misappropriation of property belonging to the Company; (v) Employee's material breach of the Company Confidential Information, Assignment of Inventions, and Noncompetition Agreement or other unauthorized misuse of the Company's trade secrets or proprietary information.

9.2 **Change in Control.** For purposes of this Agreement "***Change in Control***" means (i) a sale, conveyance, exchange or transfer in which any person or entity, other than persons or entities who as of immediately prior to such sale, conveyance, exchange or transfer own securities in the Company, either directly or indirectly, becomes the beneficial owner, directly or indirectly, of securities of the Company representing fifty (50%) percent of the total voting power of all its then outstanding voting securities; (ii) a merger or consolidation of the Company in which its voting securities immediately prior to the merger or consolidation do not represent, or are not converted into securities that represent, a majority of the voting power of all voting securities of the surviving entity immediately after the merger or consolidation; or (iii) a sale of substantially all of the assets of the Company or a liquidation or dissolution of the Company.

9.3 **Disability** shall have that meaning set forth in Section 22(e)(3) of the Internal Revenue Code of 1986, as amended.

9.4 **Good Reason.** For purposes of this Agreement, "***Good Reason***" means any of the following taken without the Employee's written consent and provided (a) the Company receives, within ninety

(90) days following the occurrence of any of the events set forth in clauses (i) through (iv) below, written notice from the Employee specifying the specific basis for Employee's belief that Employee is entitled to terminate employment for Good Reason, (b) the Company fails to cure the event constituting Good Reason within thirty (30) days after receipt of such written notice thereof, and (c) the Employee terminates employment within thirty (30) days following expiration of such cure period: (i) a material change in Employee's position, titles, offices or duties; (ii) an assignment of any significant duties to Employee that are inconsistent with Employee's positions or offices held under this Agreement; (iii) a decrease in Employee's then current annual base salary by more than 10% (other than in connection with a general decrease in the salary of all other similarly situated employees of the Company); or (iv) the relocation of the Employee to a facility or a location more than fifty (50) miles from Employee's then current location.

10. **Effect of Separation from Service**. For purposes of this Agreement, no payment will be made to Employee upon termination of Employee's employment unless such termination constitutes a "separation from service" within the meaning of Section 409A of the Code, and Section 1.409A-1(h) of the regulations promulgated thereunder.

10.1 **Separation for Cause, Death, Disability or Voluntary Separation from Service.** In the event of any separation from service of Employee's employment by the Company for Cause or in the event of the Employee's death, Disability or voluntary separation from service at any time and for any reason, the Employee will be paid only (i) any earned but unpaid Base Salary, and (ii) other unpaid vested amounts or benefits under the compensation, incentive and benefit plans of the Company in which Employee participates, and (iii) reimbursement for all reasonable and necessary expenses incurred by Employee in connection with his performance of services on behalf of the Company in accordance with applicable Company policies and guidelines, in each case as of the effective date of such separation from service (the "***Accrued Compensation***"). Employee will be allowed to exercise his vested stock options to purchase Company common stock, if any, during the time period set forth in, and in accordance with, the Plan and governing stock option agreement(s), including a "net exercise" of such stock options if Employee so elects.

10.2 **Separation from Service without Cause or for Good Reason Prior to a Change in Control.** In the event of the Employee's separation from service from the Company without Cause or for Good Reason, and provided that Employee delivers to the Company a signed settlement agreement and general release of claims in favor of the Company in the form attached hereto as Exhibit B (the "***Release***"), and satisfies all conditions to make the Release effective, within sixty (60) days following Employee's separation from service, then, in addition to the Accrued Compensation, Employee shall be entitled to the following:

(a) Lump sum payment equal to eighteen (18) months of Employee's then current Base Salary;

(b) Lump sum payment equal to Employee's then applicable annual Target Bonus, calculated at full attainment;

(c) Provided Employee timely elects to continue health coverage under COBRA, reimbursement for any monthly COBRA premium payments made by Employee in the Twelve (12) months following Employee's separation from service\; and

(d) Acceleration as to 100% of Employee's unvested equity awards from the Company.

10.3 **Separation from Service Following a Change in Control.** In the event of the Employee's separation from service from the Company without Cause or for Good Reason, in each case within Twelve (12) months following a Change in Control, and provided that Employee delivers to the Company the signed Release, and satisfies all conditions to make the Release effective, within sixty (60) days following

Employee's separation from service, then, in addition to the Accrued Compensation, Employee shall be entitled to the benefits as set forth below:

(a) Lump sum payment equal to eighteen (18) months of Employee's then current Base Salary;

(b) Lump sum payment equal to Employee's then applicable Target Bonus for eighteen (18) months, calculated at full attainment;

(c) Provided Employee timely elects to continue health coverage under COBRA, reimbursement for any monthly COBRA premium payments made by Employee in the eighteen (18) months following Employee's separation from service\; and

(d) Acceleration as to 100% of Employee's unvested equity awards from the Company.

For the avoidance of doubt, the severance payments and benefits payable pursuant to Section 10.2 or Section 10.3 above are not cumulative. Such lump sum severance payment shall be paid upon the later of thirty days after Employee's employment is terminated or the date that Employee provides the release described above and satisfies all conditions to make the Release effective; provided, that all such payments shall be made no later than March 15 of the year following the year in which the Employee's employment is terminated. In addition, if the COBRA reimbursements would violate any applicable statutes or regulations at the time of payment, the Company may, in its discretion, provide for a single lump sum and taxable payment of the value of such payments.

The above notwithstanding, the Company will not be obligated to make the payments described in Sections 10.2(a), 10.2(b), or 10.3(a) or 10.3(b), unless at the time of Employee's separation from service the Company (i) has cash or cash equivalents on hand, and (ii) the stockholders' equity (determined under GAAP), each in the amount of at least $5 million and such balances will not be reduced below $5 million by such payment.

10.4 **Parachute Payments**. In the event that the severance and other benefits provided for in this Agreement or otherwise payable to the Employee (i) constitute "parachute payments" within the meaning of Section 280G of the Code and (ii) but for this Section, would be subject to the excise tax imposed by Section 4999 of the Code, then, at Employee's discretion, Employee's severance and other benefits under this Agreement shall be payable either (i) in full, or (ii) as to such lesser amount which would result in no portion of such severance and other benefits being subject to the excise tax under Section 4999 of the Code, whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the excise tax imposed by Section 4999, results in the receipt by Employee on an after-tax basis, of the greatest amount of severance benefits under this Agreement, notwithstanding that all or some portion of such severance benefits may be taxable under Section 4999 of the Code. Any reduction shall be made in the following manner: first a pro rata reduction of (i) cash payments subject to Section 409A of the Code as deferred compensation and (ii) cash payments not subject to Section 409A of the Code, and second a pro rata cancellation of (i) equity-based compensation subject to Section 409A of the Code as deferred compensation and (ii) equity-based compensation not subject to Section 409A of the Code. Reduction in either cash payments or equity compensation benefits shall be made prorata between and among benefits which are subject to Section 409A of the Code and benefits which are exempt from Section 409A of the Code. Unless the Company and Employee otherwise agree in writing, any determination required under this Section shall be made in writing by the Company's independent public accountants (the "***Accountants***"), whose determination shall be conclusive and binding upon Employee and the Company for all purposes. For purposes of making the calculations required by this Section, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and Employee shall furnish to the Accountants such information and documents as the

Accountants may reasonably request in order to make a determination under this Section. The Company shall bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this Section.

10.5 **Company Property**. The parties acknowledge that Employee is utilizing a Company provided computer, smartphone, and other electronic devices (the "***Company Electronics***"). Such devices shall become the property of the Employee on termination of employment for any reason subject to the following: within ten (10) days of Employee's termination of employment, Employee shall deliver the Company Electronics to the Company for removal of all Company property and data from the Company Electronics. The removal of Company data and files from the Company Electronics shall be completed within two (2) business days unless the parties mutually agree to an extension. Employee's personal data and files shall be preserved on the Company Electronics which will be returned to Employee. Each party agrees to keep the other's data and files confidential in connection with the transfer of the Company Electronics.

11. **Miscellaneous**. This Agreement and the rights and obligations of the parties hereto shall be governed by and construed and enforced in accordance with the laws of the State of Texas without regard to conflicts of laws principles. Resolution of any disputes under this Agreement shall only be held in courts in Travis County, Texas, and the parties expressly consent to personal jurisdiction in courts in Travis County, Texas and waive any objections to such jurisdiction. In addition, Employee agrees that any party may also petition the court for injunctive relief where either party alleges or claims a violation of this Agreement.

11.1 **Indemnification**. The Company shall indemnify Employee with respect to activities in connection with his employment hereunder to the fullest extent provided in the Company's bylaws. Employee will be named as an insured on the director and officer liability insurance policy currently maintained, or as may be maintained by the Company from time to time, and, in addition, Employee will enter into the form of indemnification agreement provided to other similarly situated executive officers and directors of the Company.

11.2 **Section 409A.** To the extent (a) any payments or benefits to which Employee becomes entitled under this Agreement, or under any agreement or plan referenced herein, in connection with Employee's termination of employment with the Company constitute deferred compensation subject to Section 409A of the Code and (b) Employee is deemed at the time of such termination of employment to be a "specified employee" under Section 409A of the Code, then such payments shall not be made or commence until the earliest of (i) the expiration of the six (6)-month period measured from the date of Employee's "separation from service" (as such term is at the time defined in Treasury Regulations under Section 409A of the Code) from the Company; or (ii) the date of Employee's death following such separation from service; provided, however, that such deferral shall only be effected to the extent required to avoid adverse tax treatment to Employee, including (without limitation) the additional twenty percent (20%) tax for which Employee would otherwise be liable under Section 409A(a)(1)(B) of the Code in the absence of such deferral. Upon the expiration of the applicable deferral period, any payments which would have otherwise been made during that period (whether in a single sum or in installments) in the absence of this paragraph shall be paid to Employee or Employee's beneficiary in one lump sum (without interest). Any termination of Employee's employment is intended to constitute a "separation from service" as such term is defined in Treasury Regulation Section 1.409A-1. It is intended that each installment of the payments provided hereunder constitute separate "payments" for purposes of Treasury Regulation Section 1.409A-2(b)(2)(i). It is further intended that payments hereunder satisfy, to the greatest extent possible, the exemption from the application of Code Section 409A (and any state law of similar effect) provided under Treasury Regulation Section 1.409A-1(b)(4) (as a "short-term deferral").

11.3 **Severability.** If any provision of this Agreement shall be found by any arbitrator or court of competent jurisdiction to be invalid or unenforceable, then the parties hereby waive such provision to the extent of its invalidity or unenforceability, and agree that all other provisions in this Agreement shall continue in full force and effect.

11.4 **No Waiver.** The failure by either party at any time to require performance or compliance by the other of any of its obligations or agreements shall in no way affect the right to require such performance or compliance at any time thereafter. The waiver by either party of a breach of any provision hereof shall not be taken or held to be a waiver of any preceding or succeeding breach of such provision or as a waiver of the provision itself. No waiver of any kind shall be effective or binding, unless it is in writing and is signed by the party against whom such waiver is sought to be enforced.

11.5 **Assignment.** This Agreement and all rights hereunder are personal to Employee and may not be transferred or assigned by Employee at any time. The Company may assign its rights, together with its obligations hereunder, to any parent, subsidiary, affiliate or successor, or in connection with any sale, transfer or other disposition of all or substantially all of its business and assets, provided, however, that any such assignee assumes the Company's obligations hereunder.

11.6 **Withholding.** All sums payable to Employee hereunder shall be in United States Dollars and shall be reduced by all federal, state, local and other withholding and similar taxes and payments required by applicable law.

11.7 **Entire Agreement.** This Agreement (and the exhibit(s) hereto) constitutes the entire and only agreement and understanding between the parties relating to Employee's employment with Company. This Agreement supersedes and cancels any and all previous contracts, arrangements or understandings with respect to Employee's employment.

11.8 **Amendment.** The parties understand and agree that this Agreement may not be amended, modified or waived, in whole or in part, expect in a writing approved by the Company's Board of Directors and signed on behalf of the Company.

11.9 **Notices.** All notices, if any, and all other communications, if any, required or permitted under this Agreement shall be in writing and hand delivered, sent via facsimile, sent by registered first class mail, postage pre-paid, or sent by nationally recognized express courier service. Such notices and other communications shall be effective upon receipt if hand delivered or sent via facsimile, five (5) days after mailing if sent by mail, and one (l) day after dispatch if sent by express courier, to the following addresses, or such other addresses as any party shall notify the other parties:

If to the Company: Genprex, Inc.
100 Congress Avenue, Suite 2000
Austin, TX 78701

Attention: Chief Financial Officer

If to Employee: Rodney Varner
115 Laura Lane
Austin, Texas 78746

11.10 **Binding Nature.** This Agreement shall be binding upon, and inure to the benefit of, the successors and personal representatives of the respective parties hereto.

11.11 **Counterparts.** This Agreement may be executed in two or more counterparts, each of which shall be deemed to be an original but all of which, taken together, constitute one and the same agreement.

11.12 **Governing Law.** This Agreement and the rights and obligations of the parties hereto shall be construed in accordance with the laws of the State of Texas, without giving effect to the principles of conflict of laws.

11.13 **Attorneys' Fees.** In the event of any claim, demand or suit arising out of or with respect to this Agreement, the prevailing party shall be entitled to reasonable costs and attorneys' fees, including any such costs and fees upon appeal.

11.14 **Effective Date**. This Agreement will become effective on the date that it has been signed by Employee and the Company and the Company closes an initial public offering of its securities ("***Effective Date***").

IN WITNESS WHEREOF, the Company and Employee have executed this Agreement as of April 13, 2018.

GENPREX, INC.
/s/ DAVID E. FRIEDMAN

Print Name: David E. Friedman

Its: Director and Chair of Compensation Committee

RODNEY VARNER
/s/ RODNEY VARNER

Print Name: Rodney Varner

EXHIBIT A

GENPREX, INC.

CONFIDENTIAL INFORMATION, ASSIGNMENT OF INVENTIONS AND NONCOMPETITION AGREEMENT

In consideration of new or continued employment with Genprex, Inc., a Delaware corporation, its subsidiaries, affiliates, predecessors, successors or assigns (together the "***Company***"), and for other consideration, the receipt and sufficiency of which are hereby acknowledged, I agree to the following:

1. *Confidential Information*.

(a) Company Information. I agree at all times during the term of my employment and thereafter, to hold in strictest confidence, and not to use, except for the exclusive benefit of the Company, or to disclose to any person, firm or entity without written authorization of an authorized officer of the Company (other than myself), any Confidential Information of the Company. I understand that "***Confidential Information***" means any non-public information that relates to the actual or anticipated business or research and development of the Company, Company proprietary information, technical data, trade secrets or know-how, including, but not limited to, research plans, research results, processes, methods, compositions, business plans, marketing plans, product plans, products, services, suppliers, customer lists and customers (including, but not limited to, customers of the Company on whom I call or with whom I become acquainted during the term of my service on behalf of the Company), markets, software, specifications, inventions, operations, procedures, compilations of data, technology, designs, finances or other business information disclosed to me by the Company either directly or indirectly in writing, orally or by drawings or observation. I further understand that Confidential Information does not include any of the foregoing items that has become publicly known and made generally available through no wrongful act of mine or of others who were under confidentiality obligations as to the item or items involved.

(b) Acknowledgments. I acknowledge that during my employment with the Company, I will have access to Confidential Information, all of which shall be made accessible to me only in strict confidence; that unauthorized disclosure of Confidential Information will damage the Company's business; and that the restrictions contained in this agreement are reasonable and necessary for the protection of the Company's legitimate business interests.

(c) Former Employer Information. I agree that I will not, during my employment with the Company, improperly use or disclose any proprietary information or trade secrets of any former or concurrent employer or other person or entity and that I will not bring onto the premises of the Company any unpublished document or proprietary information belonging to any such employer, person or entity.

(d) Third-Party Information. I recognize that the Company has received and in the future will receive from third parties their confidential or proprietary information subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. I agree to hold all such confidential or proprietary information in the strictest confidence and not to disclose it to any person, firm or corporation or to use it except as necessary in

carrying out my work for the Company consistent with the Company's agreement with such third party.

2. *Inventions*.

(a) Inventions Retained and Licensed (Shop Rights). I have attached hereto, as Exhibit A, a list describing all inventions, original works of authorship, developments, improvements, and trade secrets which were made by me prior to my employment with the Company which belong to me, which relate to the Company's proposed business, products or research and development, and which are not assigned to the Company hereunder (collectively referred to as "***Prior Inventions***"). If no such list is attached, I represent that there are no such Prior Inventions. If, in the course of my employment with the Company, I incorporate into a Company product, process or service a Prior Invention owned by me or in which I have an interest, the Company is hereby granted and shall have a nonexclusive, royalty-free, irrevocable, perpetual, worldwide license to make, have made, modify, use and sell such Prior Invention as part of or in connection with such product, process or service, and to practice any method related thereto.

(b) Assignment of Inventions. I agree that I will promptly make full written disclosure to the Company, will hold in trust for the sole right and benefit of the Company, will assign to the Company or its designee, and hereby do assign to the Company or its designee, all my right, title, and interest in and to any and all inventions, original works of authorship, developments, concepts, improvements, designs, discoveries, ideas, trademarks or trade secrets, whether or not patentable or registrable under copyright or similar laws, which I have solely or jointly conceived or developed or reduced to practice, or caused to be conceived or developed or reduced to practice and which I may solely or jointly conceive or develop or reduce to practice, or cause to be conceived or developed or reduced to practice, during the period of time I have been and am in the employ of the Company or prior to my employment with the Company when working with, for, or on behalf of the Company in a capacity other than as an employee (collectively referred to as "***Inventions***"), except as provided in Section 2(f) below. I further acknowledge that all original works of authorship which are made by me (solely or jointly with others) within the scope of and during the period of my employment with the Company and which are protectable by copyright are and shall be treated as "works made for hire" as that term is defined in the United States Copyright Act. I understand and agree that the decision whether or not to commercialize or market any Invention developed by me solely or jointly with others is within the Company's sole discretion and for the Company's sole benefit and that no royalty will be due to me as a result of the Company's efforts to commercialize or market any such Invention.

(c) Inventions Assigned to the United States. I agree to assign to the United States government all my right, title, and interest in and to any and all Inventions whenever such full title is required to be in the United States by a contract between the Company and the United States or any of its agencies.

(d) Maintenance of Records. I agree to keep and maintain adequate and current written records of all Inventions made by me (solely or jointly with others) during the term of my employment with the Company. The records will be in the form of notes, drawings and any other format that may be specified by the Company. The records will be available to and remain the sole property of the Company at all times.

(e) Patent and Copyright Registrations. I agree to assist the Company, or its designee, at the Company's expense, in every proper way to secure the Company's rights in the Inventions and any copyrights, patents, trademarks, trade secrets, mask work rights or other intellectual property rights relating thereto in any and all countries, including the disclosure to the Company of all pertinent information and data with respect thereto, the execution of all applications, specifications, oaths, assignments and all other instruments which the Company shall deem necessary in order to apply for and obtain such rights and in order to assign and convey to the Company, its successors, assigns, and nominees the sole and exclusive rights, title and interest in and to such Inventions, and any copyrights, patents, trademarks, trade secrets, mask work rights or other intellectual property rights relating thereto. I further agree that my obligation to execute or cause to be executed, when it is in my power to do so, any such instrument or papers shall continue after the termination of this Agreement. If the Company is unable because of my mental or physical incapacity or for any other reason to secure my signature to apply for or to pursue any application for any United States or foreign patents, trademarks or copyright registrations covering Inventions or original works of authorship assigned to the Company above, then I hereby irrevocably designate and appoint the Company and its duly authorized officers and agents as my agent and attorney in fact, to act for and in my behalf and stead to execute and file any such applications and to do all other lawfully permitted acts to further the prosecution and issuance of letters patent, trademarks or copyright registrations thereon with the same legal force and effect as if executed by me.

(f) No Self-Help or Unauthorized Code. I represent and warrant to the Company, that I will not knowingly infect, incorporate into or combine with any computer system, computer program, software product, database or computer storage media of the Company, except as known to and intended by the Company's senior management, any Unauthorized Code (as defined below).

> "***Unauthorized Code***" means any back door, time bomb, drop dead device, virus, Trojan horse, worm, or other harmful routing, code, algorithm or hardware component designed or used: (i) to disable, erase, alter or harm any computer system, computer program, database, data, hardware or communications system, automatically, with the passage of time, or under the control of any person, or (ii) to access any computer system, computer program, database, data, hardware or communications system.

3. *Conflicting Employment*. I agree that, during the term of my employment with the Company, I will not engage in any other employment, occupation, consulting or other business activity directly related to the business in which the Company is now involved or becomes involved during the term of my employment, nor will I engage in any other activities that conflict with my obligations to the Company.

4. *Returning Company Documents*. I agree that, at the time of leaving the employ of the Company, I will deliver to the Company (and will not keep in my possession, recreate, copy or deliver to anyone else) any and all devices, documents, records, data, notes, reports, proposals, lists, correspondence, formulae, specifications, drawings, materials, equipment or property, or reproductions of any aforementioned items, developed by me pursuant to my employment with the Company or otherwise belonging to the Company. I understand and agree that compliance with this paragraph may require that data be removed from my personal computer equipment, and I agree to give the qualified personnel of the Company or its contractors access to such computer equipment for that purpose.

5. *Notification of New Employer*. In the event that I leave the employ of the Company, I hereby grant consent to notification by the Company to my new employer about my rights and obligations under this Agreement.

6. *Solicitation of Employees*. I agree that for a period of twelve (12) months immediately following the termination of my relationship with the Company for any reason, I shall not either directly or indirectly solicit, induce, recruit or encourage any of the Company's employees to leave their employment, or take away such employees, either for myself or for any other person or entity.

7. *Covenant Not to Compete*.

(a) Covenant. I agree that during the course of my employment and for twelve (12) months following the termination of my relationship with the Company (the "***Noncompetition Period***") for any reason, I will not, without the prior written consent of the Company, (i) serve as a partner, employee, consultant, officer, director, manager, agent, associate, investor, or (ii) directly or indirectly, own, purchase, organize or take preparatory steps for the organization of, or (iii) build, design, finance, acquire, lease, operate, manage, invest in, work or consult for or otherwise affiliate myself with any business, (a) in competition with the Company's business at the time my relationship with the Company terminated or (b) competing in any other line of business that I knew or had reason to know the Company had formed an intention to enter. This covenant shall not prohibit me from owning less than one percent of the securities of any company that is publicly traded on a nationally recognized stock exchange. The foregoing covenant shall cover my activities in every part of the Territory in which I may conduct business during the term of such covenant as set forth above. "***Territory***" shall mean (i) all counties in the State of Texas, (ii) all other states of the United States of America and (iii) all other countries of the world; *provided that*, with respect to clauses (ii) and (iii), the Company maintains non-trivial operations, facilities, or customers in such geographic area prior to the date of the termination of my relationship with the Company.

(b) Acknowledgement. I acknowledge that my fulfillment of the obligations contained in this Agreement is necessary to protect the Company's Confidential Information and to preserve the trade secrets, value and goodwill of the Company. I further acknowledge the time, geographic and scope limitations of my obligations under subsection (a) above are reasonable, especially in light of the Company's desire to protect its Confidential Information and trade secrets, and that I will not be precluded from gainful employment if I am obligated not to compete with the Company during the period and within the Territory as described above.

(c) Severability. The covenants contained in subsection (a) above shall be construed as a series of separate covenants, one for each county, state and country of any geographic area in the Territory. Except for geographic coverage, each such separate covenants shall be deemed identical in terms to the covenant contained in subsection (a) above. If, in any judicial proceeding, a court refuses to enforce any of such separate covenants (or any part thereof), then such unenforceable covenant (or such part) shall be eliminated from this Agreement to the extent necessary to permit the remaining separate covenants (or portions thereof) to be enforced. In the event the provisions of subsection (a) are deemed to exceed the time, geographic or scope limitations permitted by law, then such provisions shall be reformed to the maximum time, geographic or scope limitations, as the case may be, then permitted by law.

8. *Representations*. I agree to execute any proper oath or verify any proper document required to carry out the terms of this Agreement. I represent that my performance of all the terms of this Agreement will not breach any agreement to keep in confidence proprietary information acquired by me in confidence or in trust prior to my employment by the Company. I have not entered into, and I agree I will not enter into, any oral or written agreement in conflict herewith.

9. *Equitable Relief*. I acknowledge that the Company's Confidential Information is unique and that breach of my covenant of confidentiality contained in this Agreement will cause irreparable damage to the Company that is difficult to quantify in monetary terms. Accordingly, I consent to the Company obtaining equitable or injunctive relief against any threatened or actual breach of the terms of this Agreement without posting a bond or other security and I hereby waive any right to argue that the Company has an adequate remedy at law.

10. *At-Will Employment*. I UNDERSTAND AND ACKNOWLEDGE THAT MY EMPLOYMENT WITH THE COMPANY IS FOR AN UNSPECIFIED DURATION AND CONSTITUTES "AT-WILL" EMPLOYMENT. I ALSO UNDERSTAND THAT ANY REPRESENTATION TO THE CONTRARY IS UNAUTHORIZED AND NOT VALID UNLESS OBTAINED IN WRITING AND SIGNED BY THE CHIEF EXECUTIVE OFFICER OF THE COMPANY. I ACKNOWLEDGE THAT THIS EMPLOYMENT RELATIONSHIP MAY BE TERMINATED AT ANY TIME, WITH OR WITHOUT GOOD CAUSE OR FOR ANY OR NO CAUSE, AT THE OPTION EITHER OF THE COMPANY OR MYSELF, WITH OR WITHOUT NOTICE.

11. *General Provisions*.

(a) Governing Law; Consent to Personal Jurisdiction. This Agreement will be governed by the laws of the state of Texas without regard for conflicts of laws principles. I hereby expressly consent to the exclusive personal jurisdiction of the state and federal courts located in Texas for any lawsuit filed there against me by the Company arising from or relating to this Agreement.

(b) Entire Agreement. This Agreement sets forth the entire agreement and understanding between the Company and me relating to the subject matter herein and supersedes all prior discussions between us. No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, will be effective unless in writing signed by the party to be charged. Any subsequent change or changes in my duties, salary or compensation will not affect the validity or scope of this Agreement.

(c) Other Agreements. In the event of any direct conflict between any term of this Agreement and any term of any other agreement executed by me, the terms of this Agreement shall control. If I signed or sign any other agreement(s) relating to or arising from my employment with the company, all provisions of such agreement(s) that do not directly conflict with a provision of this Agreement shall not be affected, modified or superseded by this Agreement, but rather shall remain fully enforceable according to their terms.

(d) Severability. If one or more of the provisions in this Agreement are deemed void by law, then the remaining provisions will continue in full force and effect, and, with respect to the covenant not to compete in Section 7, the court is hereby authorized to reduce the duration or geographic scope of such covenant as may be required so that in its reduced form the provision is enforceable to the fullest extent of the law.

(e) Survival. My obligations under this Agreement shall survive the termination of my employment with the Company and shall thereafter be enforceable whether or not such termination is claimed or found to be wrongful or to constitute or result in a breach of any contract or of any other

duty owed or claimed to be owed to me by the Company or any Company employee, agent or contractor.

(f) Successors and Assigns. This Agreement will be binding upon my heirs, executors, administrators and other legal representatives and will be for the benefit of the Company, its successors, and its assigns.

(g) Construction. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent and no rules of strict construction will be applied against either party.

(h) Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be enforceable, and all of which together shall constitute one agreement.

12. *Acknowledgment*. I acknowledge and agree to each of the following items:

(a) I am executing this Agreement voluntarily and without any duress or undue influence by the Company or anyone else; and

(b) I have carefully read this Agreement. I have asked any questions needed for me to understand the terms, consequences and binding effect of this Agreement and fully understand them; and

(c) I sought the advice of an attorney of my choice if I wanted to before signing this Agreement.

Executed on this ____ day of _____, 20___.

EMPLOYEE

By: _____

Print Name: _____

GENPREX, INC.

By: _____

Print Name: _____

EXHIBIT A
LIST OF PRIOR INVENTIONS
AND ORIGINAL WORKS OF AUTHORSHIP

Title	*Date*	*Identifying Number or Brief Description*

_____ No inventions or improvements
_____ Additional Sheets Attached

Signature of Employee: _____
Print Name of Employee: _____

Date: _____

EXHIBIT B

GENERAL RELEASE AGREEMENT

In consideration of the severance and acceleration benefits (the "**Severance and Acceleration Benefits**") offered to me by Genprex, Inc. ("**Employer**") pursuant to my Employment Agreement with Employer dated April 13, 2018, (the "**Agreement**") and in connection with the termination of my employment, I agree to the following general release (the "**Release**").

1. On behalf of myself, my heirs, executors, administrators, successors, and assigns, I hereby fully and forever generally release and discharge Employer, its current, former and future parents, subsidiaries, affiliated companies, related entities, employee benefit plans, and their fiduciaries, predecessors, successors, officers, directors, shareholders, agents, employees and assigns (collectively, the "**Company**") from any and all claims, causes of action, and liabilities up through the date of my execution of the Release. The claims subject to this release include, but are not limited to, those relating to my employment with Employer and/or any predecessor or successor to Employer and the termination of such employment. All such claims (including related attorneys' fees and costs) are barred without regard to whether those claims are based on any alleged breach of a duty arising in statute, contract, or tort. This expressly includes waiver and release of any rights and claims arising under any and all laws, rules, regulations, and ordinances, including, but not limited to: Title VII of the Civil Rights Act of 1964; the Older Workers Benefit Protection Act; the Americans With Disabilities Act; the Age Discrimination in Employment Act; the Fair Labor Standards Act; the National Labor Relations Act; the Family and Medical Leave Act; the Employee Retirement Income Security Act of 1974, as amended ("**ERISA**"); the Workers Adjustment and Retraining Notification Act; the Equal Pay Act of 1963; and any similar law of any other state or governmental entity.

2. This Release does not extend to, and has no effect upon, any benefits that have accrued, and to which I have become vested, under any employee benefit plan within the meaning of ERISA sponsored by the Company.

3. In understanding the terms of the Release and my rights, I have been advised to consult with an attorney of my choice prior to executing the Release. I understand that nothing in this Release is intended to constitute an unlawful release or waiver of any of my rights under any laws and/or to prevent, impede, or interfere with my ability and/or rights, if any: (a) under applicable workers' compensation laws; (b) to seek unemployment benefits; (c) to file a charge or complaint with a government agency such as but not limited to the Equal Employment Opportunity Commission, the National Labor Relations Board, or any applicable state agency; (d) provide truthful testimony if under subpoena to do so, (e) file a claim with any state or federal agency or to participate or cooperate in such a matter, and/or (f) to challenge the validity of this release. Furthermore, notwithstanding any provisions and covenants herein, the Release shall not waive (a) any rights to indemnification I may have as an officer of Employer or otherwise in connection with my employment with Employer, under Employer's bylaws or other governing instruments or any agreement addressing such subject matter between Employer and me or under any merger or acquisition agreement addressing such subject matter, (b) any obligations owed to me pursuant to the Agreement, (c) my rights of insurance under any

liability policy covering Employer's officers, or (d) any accrued but unpaid wages; any reimbursement for business expenses pursuant to Employer's policies for such reimbursements, any outstanding claims for benefits or payments under any benefit plans of Employer or subsidiaries, any accrued but unused vacation, any ongoing agreements evidencing outstanding equity awards granted to me, any obligations owed to me pursuant to the terms of outstanding written agreements between myself and Employer and any claims I may not release as a matter of law, including indemnification claims under applicable law.

4. I understand and agree that Employer will not provide me with the Severance and Acceleration Benefits unless I execute the Release. I also understand that I have received or will receive, regardless of the execution of the Release, all wages owed to me together with any accrued but unused vacation pay, less applicable withholdings and deductions, earned through my termination date.

5. As part of my existing and continuing obligations to Employer, I have returned to Employer all documents (and all copies thereof) and other property belonging to Employer that I have had in my possession at any time, including but not limited to files, notes, drawings, records, business plans and forecasts, financial information, specification, computer-recorded information, tangible property (including, but not limited to, computers, laptops, pagers, etc.), credit cards, entry cards, identification badges and keys; and any materials of any kind which contain or embody any proprietary or confidential information of Employer (and all reproductions thereof). I understand that, even if I did not sign the Release, I am still bound by any and all confidential/proprietary/trade secret information, non-disclosure and inventions assignment agreement(s) signed by me in connection with my employment with Employer, or with a predecessor or successor of Employer, pursuant to the terms of such agreement(s).

6. I represent and warrant that I am the sole owner of all claims relating to my employment with Employer and/or with any predecessor of Employer, and that I have not assigned or transferred any claims relating to my employment to any other person or entity.

7. I agree to keep the Severance and Acceleration Benefits and the provisions of this Release confidential and not to reveal their contents to anyone except my lawyer, my spouse or other immediate family member, and/or my financial consultant, or as required by legal process or applicable law.

8. I understand and agree that the Release shall not be construed at any time as an admission of liability or wrongdoing by either the Company or me.

9. I understand and agree that the Release shall not be construed at any time as an admission of liability or wrongdoing by either the Company or myself.

10. I agree that I will not make any negative or disparaging statements or comments, either as fact or as opinion, about the Company, its employees, officers, directors, shareholders, vendors, products or services, business, technologies, market

position or performance. Nothing in this paragraph shall prohibit me from providing truthful information in response to a subpoena or other legal process.

11. Any controversy or any claim arising out of or relating to the interpretation, enforceability or breach of the Release shall be settled in the courts of Texas in accordance with the Agreement.

12. I agree that I have had at least twenty-one (21) calendar days in which to consider whether to execute the Release, no one hurried me into executing the Release during that period, and no one coerced me into executing the Release. I understand that the offer of the Severance and Acceleration Benefits and the Release shall expire on the twenty-second (22nd) calendar day after my employment termination date if I have not accepted it by that time. I further understand that Employer's obligations under the Release shall not become effective or enforceable until the eighth (8th) calendar day after the date I sign the Release provided that I have timely delivered it to Employer (the "**Effective Date**") and that in the seven (7) day period following the date I deliver a signed copy of the Release to Employer I understand that I may revoke my acceptance of the Release. I understand that the Severance and Acceleration Benefits will become available to me on or about the fourteenth (14th) calendar day after the Effective Date.

13. In executing the Release, I acknowledge that I have not relied upon any statement made by Employer, or any of its representatives or employees, with regard to the Release unless the representation is specifically included herein. Furthermore, the Release and the Agreement contain our entire understanding regarding eligibility for and the payment of severance benefits and supersede any or all prior representations and agreements regarding the subject matter. Once effective and enforceable, this agreement can only be changed by another written agreement signed by me and an authorized representative of Employer.

14. Should any provision of the Release be determined by an arbitrator, court of competent jurisdiction, or government agency to be wholly or partially invalid or unenforceable, the legality, validity and enforceability of the remaining parts, terms, or provisions are intended to remain in full force and effect. Specifically, should a court, arbitrator, or agency conclude that a particular claim may not be released as a matter of law, it is the intention of the parties that the general release and the waiver of unknown claims above shall otherwise remain effective to release any and all other claims. I acknowledge that I have obtained sufficient information to intelligently exercise my own judgment regarding the terms of the Release before executing the Release.

[SIGNATURE PAGE TO GENERAL RELEASE AGREEMENT FOLLOWS]

EXECUTIVE'S ACCEPTANCE OF RELEASE

BEFORE SIGNING MY NAME TO THE RELEASE, I STATE THE FOLLOWING: I HAVE READ THE RELEASE, I UNDERSTAND IT AND I KNOW THAT I AM GIVING UP IMPORTANT RIGHTS. I HAVE OBTAINED SUFFICIENT INFORMATION TO INTELLIGENTLY EXERCISE MY OWN JUDGMENT. I HAVE BEEN ADVISED THAT I SHOULD CONSULT WITH AN ATTORNEY BEFORE SIGNING IT, AND I HAVE SIGNED THE RELEASE KNOWINGLY AND VOLUNTARILY..

Date delivered to employee _____, _____

Executed this _____ day of _____,

_____
Signature

_____
Name (Please Print)

[SIGNATURE PAGE TO GENERAL RELEASE AGREEMENT]

Exhibit 10.17

EXECUTIVE EMPLOYMENT AGREEMENT

This Executive Employment Agreement (the "***Agreement***") is entered into between Genprex, Inc. ("***Company***") and Ryan Confer ("***Employee***"). This Agreement is effective as of the effective date provided below ("***Effective Date***").

In consideration of the promises and the terms and conditions set forth in this Agreement, the parties agree as follows:

1. Position and Duties. As of the Effective Date, Employee will serve as Chief Financial Officer of the Company and will report to the Company's Chief Executive Officer ("***CEO***"). Employee will render such business and professional services in the performance of his duties, consistent with Employee's position, as shall reasonably be assigned to him by the Company.

2. Exclusive Service. Employee will be expected to devote his full working time and attention to the business of the Company, and, except as provided herein, will not render services to any other business without the prior approval of the Company's Board of Directors (the "***Board***") or, directly or indirectly, engage or participate in any business that is competitive in any manner with the business of the Company. Employee will also be expected to comply with and be bound by the Company's operating policies, procedures and practices that are from time to time in effect during the term of his employment. Employee may continue to spend fewer than ten hours per month providing financial consulting services to other companies that are not competitive with the Company. Employee is also permitted to manage investments on behalf of himself and his family owned entities.

3. At-Will Employment. Employee and the Company understand and acknowledge that Employee's employment with the Company constitutes "at-will" employment, and the employment relationship may be terminated at any time, with or without cause and with or without notice.

4. Compensation and Benefits.

4.1 Base Salary. While employed by the Company pursuant to this Agreement, the Company shall pay the Employee an annual base salary of $240,000.00 (the "***Base Salary***"), payable in accordance with the Company's normal payroll practices. The Company shall periodically review (at least annually) Employee's compensation and benefits, provided that any changes thereto shall be determined by the Company in its sole and absolute discretion.

4.2 Management by Objectives Bonus. Employee will also be eligible to receive an annual cash bonus in an amount determined by the Board (the "***Target Bonus***"), upon the achievement of performance objectives mutually agreed upon between Employee and the Board within Ninety (90) days following the Effective Date. To receive payment of any bonus Employee must be employed by the Company at the time bonuses are paid. Thereafter, Employee will also be eligible to receive an annual bonus in such amount and upon such terms as shall be determined by the Board.

4.3 Employee Benefits. Employee shall be eligible to participate in all employee benefit plans and arrangements, including, but not limited to, medical, dental, vision and long-term disability insurance benefits and arrangements, as are made available by the Company to its other senior executives, subject to the terms and conditions thereof.

4.4 Vacation. Employee will be entitled to paid vacation and holidays pursuant to the terms of the Company's vacation policy as may exist from time to time.

5. **Equity Grants.** On or following commencement of Employee's employment and subject to approval of the Board, the Company may from time to time grant Employee options or other forms of equity under the Company's 2018 Equity Incentive Plan ("Plan") upon such terms and conditions as may be determined by the Board in its sole discretion.

6. **Expenses.** The Company will, in accordance with applicable Company policies and guidelines, reimburse Employee for all reasonable and necessary expenses incurred by Employee in connection with his performance of services on behalf of the Company. Without limiting the foregoing, expenses will be deemed reasonable if they are permitted by the Company's written policies.

7. **Inventions and Proprietary Information, Non-Solicitation.**

7.1 **Proprietary Information and Inventions Agreement.** Employee hereby agrees to execute the Company Confidential Information, Assignment of Inventions, and Noncompetition Agreement attached hereto as Exhibit A.

8. **Definitions.**

8.1 **Cause.** For purposes of this Agreement, "***Cause***" means (i) a determination by the Board that Employee's performance is unsatisfactory after there has been delivered to Employee a written demand for performance which describes the specific deficiencies in Employee's performance and the specific manner in which Employee's performance must be improved, and which provides thirty (30) business days from the date of notice to remedy such performance deficiencies; (ii) Employee's conviction of or plea of nolo contendere to a felony or a crime involving moral turpitude which the Board reasonably finds has had or will have a detrimental effect on the Company's reputation or business, (iii) Employee engaging in an act of gross negligence or willful misconduct in the performance of his employment obligations and duties that materially harms the Company, (iv) Employee's committing an act of fraud against, material misconduct or willful misappropriation of property belonging to the Company; (v) Employee's material breach of the Company Confidential Information, Assignment of Inventions, and Noncompetition Agreement or other unauthorized misuse of the Company's trade secrets or proprietary information.

8.2 **Change in Control.** For purposes of this Agreement "***Change in Control***" means (i) a sale, conveyance, exchange or transfer in which any person or entity, other than persons or entities who as of immediately prior to such sale, conveyance, exchange or transfer own securities in the Company, either directly or indirectly, becomes the beneficial owner, directly or indirectly, of securities of the Company representing fifty (50%) percent of the total voting power of all its then outstanding voting securities; (ii) a merger or consolidation of the Company in which its voting securities immediately prior to the merger or consolidation do not represent, or are not converted into securities that represent, a majority of the voting power of all voting securities of the surviving entity immediately after the merger or consolidation; or (iii) a sale of substantially all of the assets of the Company or a liquidation or dissolution of the Company.

8.3 **Disability** shall have that meaning set forth in Section 22(e)(3) of the Internal Revenue Code of 1986, as amended.

8.4 **Good Reason.** For purposes of this Agreement, "***Good Reason***" means any of the following taken without the Employee's written consent and provided (a) the Company receives, within ninety (90) days following the occurrence of any of the events set forth in clauses (i) through (iv) below, written notice from the Employee specifying the specific basis for Employee's belief that Employee is entitled to terminate employment for Good Reason, (b) the Company fails to cure the event constituting Good Reason within thirty (30) days after receipt of such written notice thereof, and (c) the Employee terminates employment within thirty (30) days following expiration of such cure period: (i) a material change in Employee's position, titles, offices or duties; (ii) an assignment of any significant duties to Employee that are inconsistent with Employee's

positions or offices held under this Agreement; (iii) a decrease in Employee's then current annual base salary by more than 10% (other than in connection with a general decrease in the salary of all other similarly situated employees of the Company); or (iv) the relocation of the Employee to a facility or a location more than fifty (50) miles from Employee's then current location.

9. Effect of Separation from Service. For purposes of this Agreement, no payment will be made to Employee upon termination of Employee's employment unless such termination constitutes a "separation from service" within the meaning of Section 409A of the Code, and Section 1.409A-1(h) of the regulations promulgated thereunder.

9.1 Separation for Cause, Death, Disability or Voluntary Separation from Service. In the event of any separation from service of Employee's employment by the Company for Cause or in the event of the Employee's death, Disability or voluntary separation from service at any time and for any reason, the Employee will be paid only (i) any earned but unpaid Base Salary, and (ii) other unpaid vested amounts or benefits under the compensation, incentive and benefit plans of the Company in which Employee participates, and (iii) reimbursement for all reasonable and necessary expenses incurred by Employee in connection with his performance of services on behalf of the Company in accordance with applicable Company policies and guidelines, in each case as of the effective date of such separation from service (the "***Accrued Compensation***"). Employee will be allowed to exercise his vested stock options to purchase Company common stock, if any, during the time period set forth in, and in accordance with, the Plan and governing stock option agreement(s), including a "net exercise" of such stock options if Employee so elects.

9.2 Separation from Service without Cause or for Good Reason Prior to a Change in Control. In the event of the Employee's separation from service from the Company without Cause or for Good Reason, and provided that Employee delivers to the Company a signed settlement agreement and general release of claims in favor of the Company in the form attached hereto as Exhibit B (the "***Release***"), and satisfies all conditions to make the Release effective, within sixty (60) days following Employee's separation from service, then, in addition to the Accrued Compensation, Employee shall be entitled to the following:

(a) Lump sum payment equal to twelve (12) months of Employee's then current Base Salary;

(b) Lump sum payment equal to Employee's then applicable annual Target Bonus, calculated at full attainment;

(c) Provided Employee timely elects to continue health coverage under COBRA, reimbursement for any monthly COBRA premium payments made by Employee in the Twelve (12) months following Employee's separation from service\; and

(d) Acceleration as to 100% of Employee's unvested equity awards from the Company.

9.3 Separation from Service Following a Change in Control. In the event of the Employee's separation from service from the Company without Cause or for Good Reason, in each case within Twelve (12) months following a Change in Control, and provided that Employee delivers to the Company the signed Release, and satisfies all conditions to make the Release effective, within sixty (60) days following Employee's separation from service, then, in addition to the Accrued Compensation, Employee shall be entitled to the benefits as set forth below:

(a) Lump sum payment equal to twelve (12) months of Employee's then current Base Salary;

(b) Lump sum payment equal to Employee's then applicable annual Target Bonus, calculated at full attainment;

(c) Provided Employee timely elects to continue health coverage under COBRA, reimbursement for any monthly COBRA premium payments made by Employee in the twelve (12) months following Employee's separation from service\; and

(d) Acceleration as to 100% of Employee's unvested equity awards from the Company.

For the avoidance of doubt, the severance payments and benefits payable pursuant to Section 9.2 or Section 9.3 above are not cumulative. Such lump sum severance payment shall be paid no later than March 15 of the year following the year in which Employee's employment is terminated provided the release described above is effective at such time. In addition, if the COBRA reimbursements would violate any applicable statutes or regulations at the time of payment, the Company may, in its discretion, provide for a single lump sum and taxable payment of the value of such payments.

The above notwithstanding, the Company will not be obligated to make the payments described in Sections 9.2(a), 9.2(b), or 9.3(a) or 9.3(b), unless at the time of Employee's separation from service the Company (i) has cash or cash equivalents on hand, and (ii) the stockholders' equity (determined under GAAP), each in the amount of at least $5 million and neither such balance will be reduced below $5 million by such payment.

9.4 **Parachute Payments**. In the event that the severance and other benefits provided for in this Agreement or otherwise payable to the Employee (i) constitute "parachute payments" within the meaning of Section 280G of the Code and (ii) but for this Section, would be subject to the excise tax imposed by Section 4999 of the Code, then, at Employee's discretion, Employee's severance and other benefits under this Agreement shall be payable either (i) in full, or (ii) as to such lesser amount which would result in no portion of such severance and other benefits being subject to the excise tax under Section 4999 of the Code, whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the excise tax imposed by Section 4999, results in the receipt by Employee on an after-tax basis, of the greatest amount of severance benefits under this Agreement, notwithstanding that all or some portion of such severance benefits may be taxable under Section 4999 of the Code. Any reduction shall be made in the following manner: first a pro rata reduction of (i) cash payments subject to Section 409A of the Code as deferred compensation and (ii) cash payments not subject to Section 409A of the Code, and second a pro rata cancellation of (i) equity-based compensation subject to Section 409A of the Code as deferred compensation and (ii) equity-based compensation not subject to Section 409A of the Code. Reduction in either cash payments or equity compensation benefits shall be made prorata between and among benefits which are subject to Section 409A of the Code and benefits which are exempt from Section 409A of the Code. Unless the Company and Employee otherwise agree in writing, any determination required under this Section shall be made in writing by the Company's independent public accountants (the "***Accountants***"), whose determination shall be conclusive and binding upon Employee and the Company for all purposes. For purposes of making the calculations required by this Section, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and Employee shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this Section. The Company shall bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this Section.

9.5 **Company Property**. The parties acknowledge that Employee is utilizing a Company provided computer, smartphone, and other electronic devices (the "***Company Electronics***"). Such devices shall become the property of the Employee on termination of employment for any reason subject to the following: within ten (10) days of Employee's termination of employment, Employee shall deliver the Company Electronics to the Company for removal of all Company property and data from the Company Electronics. The

removal of Company data and files from the Company Electronics shall be completed within two (2) business days unless the parties mutually agree to an extension. Employee's personal data and files shall be preserved on the Company Electronics which will be returned to Employee. Each party agrees to keep the other's data and files confidential in connection with the transfer of the Company Electronics.

10. **Miscellaneous**. This Agreement and the rights and obligations of the parties hereto shall be governed by and construed and enforced in accordance with the laws of the State of Texas without regard to conflicts of laws principles. Resolution of any disputes under this Agreement shall only be held in courts in Travis County, Texas, and the parties expressly consent to personal jurisdiction in courts in Travis County, Texas and waive any objections to such jurisdiction. In addition, Employee agrees that any party may also petition the court for injunctive relief where either party alleges or claims a violation of this Agreement.

10.1 **Indemnification**. The Company shall indemnify Employee with respect to activities in connection with his employment hereunder to the fullest extent provided in the Company's bylaws. Employee will be named as an insured on the director and officer liability insurance policy currently maintained, or as may be maintained by the Company from time to time, and, in addition, Employee will enter into the form of indemnification agreement provided to other similarly situated executive officers and directors of the Company.

10.2 **Section 409A.** To the extent (a) any payments or benefits to which Employee becomes entitled under this Agreement, or under any agreement or plan referenced herein, in connection with Employee's termination of employment with the Company constitute deferred compensation subject to Section 409A of the Code and (b) Employee is deemed at the time of such termination of employment to be a "specified employee" under Section 409A of the Code, then such payments shall not be made or commence until the earliest of (i) the expiration of the six (6)-month period measured from the date of Employee's "separation from service" (as such term is at the time defined in Treasury Regulations under Section 409A of the Code) from the Company; or (ii) the date of Employee's death following such separation from service; provided, however, that such deferral shall only be effected to the extent required to avoid adverse tax treatment to Employee, including (without limitation) the additional twenty percent (20%) tax for which Employee would otherwise be liable under Section 409A(a)(1)(B) of the Code in the absence of such deferral. Upon the expiration of the applicable deferral period, any payments which would have otherwise been made during that period (whether in a single sum or in installments) in the absence of this paragraph shall be paid to Employee or Employee's beneficiary in one lump sum (without interest). Any termination of Employee's employment is intended to constitute a "separation from service" as such term is defined in Treasury Regulation Section 1.409A-1. It is intended that each installment of the payments provided hereunder constitute separate "payments" for purposes of Treasury Regulation Section 1.409A-2(b)(2)(i). It is further intended that payments hereunder satisfy, to the greatest extent possible, the exemption from the application of Code Section 409A (and any state law of similar effect) provided under Treasury Regulation Section 1.409A-1(b)(4) (as a "short-term deferral").

10.3 **Severability.** If any provision of this Agreement shall be found by any arbitrator or court of competent jurisdiction to be invalid or unenforceable, then the parties hereby waive such provision to the extent of its invalidity or unenforceability, and agree that all other provisions in this Agreement shall continue in full force and effect.

10.4 **No Waiver.** The failure by either party at any time to require performance or compliance by the other of any of its obligations or agreements shall in no way affect the right to require such performance or compliance at any time thereafter. The waiver by either party of a breach of any provision hereof shall not be taken or held to be a waiver of any preceding or succeeding breach of such provision or as a waiver of the provision itself. No waiver of any kind shall be effective or binding, unless it is in writing and is signed by the party against whom such waiver is sought to be enforced.

10.5 **Assignment.** This Agreement and all rights hereunder are personal to Employee and may not be transferred or assigned by Employee at any time. The Company may assign its rights, together with

its obligations hereunder, to any parent, subsidiary, affiliate or successor, or in connection with any sale, transfer or other disposition of all or substantially all of its business and assets, provided, however, that any such assignee assumes the Company's obligations hereunder.

10.6 **Withholding.** All sums payable to Employee hereunder shall be in United States Dollars and shall be reduced by all federal, state, local and other withholding and similar taxes and payments required by applicable law.

10.7 **Entire Agreement.** This Agreement (and the exhibit(s) hereto) constitutes the entire and only agreement and understanding between the parties relating to Employee's employment with Company. This Agreement supersedes and cancels any and all previous contracts, arrangements or understandings with respect to Employee's employment.

10.8 **Amendment.** The parties understand and agree that this Agreement may not be amended, modified or waived, in whole or in part, expect in a writing signed by the CEO.

10.9 **Notices.** All notices, if any, and all other communications, if any, required or permitted under this Agreement shall be in writing and hand delivered, sent via facsimile, sent by registered first class mail, postage pre-paid, or sent by nationally recognized express courier service. Such notices and other communications shall be effective upon receipt if hand delivered or sent via facsimile, five (5) days after mailing if sent by mail, and one (l) day after dispatch if sent by express courier, to the following addresses, or such other addresses as any party shall notify the other parties:

If to the Company: Genprex, Inc.
100 Congress Avenue, Suite 2000
Austin, TX 78701

Attention: Chief Executive Officer

If to Employee: Ryan Confer
1000 San Marcos Street #460
Austin, Texas 78702

10.10 **Binding Nature.** This Agreement shall be binding upon, and inure to the benefit of, the successors and personal representatives of the respective parties hereto.

10.11 **Counterparts.** This Agreement may be executed in two or more counterparts, each of which shall be deemed to be an original but all of which, taken together, constitute one and the same agreement.

10.12 **Governing Law.** This Agreement and the rights and obligations of the parties hereto shall be governed by and construed and enforced in accordance with the laws of the State of Texas without regard to conflicts of laws principles. Resolution of any disputes under this Agreement shall only be held in courts in Travis County, Texas, and the parties expressly consent to personal jurisdiction in courts in Travis County, Texas and waive any objections to such jurisdiction.

10.13 **Attorneys' Fees.** In the event of any claim, demand or suit arising out of or with respect to this Agreement, the prevailing party shall be entitled to reasonable costs and attorneys' fees, including any such costs and fees upon appeal.

10.14 **Effective Date**. This Agreement will become effective on the date that it has been signed by Employee and the Company and the Company closes an initial public offering of its securities ("***Effective Date***").

IN WITNESS WHEREOF, the Company and Employee have executed this Agreement as of April 13, 2018.

GENPREX, INC.
/s/ RODNEY VARNER
Print Name: Rodney Varner
Its: Chairman & CEO

RYAN CONFER
/s/ RYAN M. CONFER
Print Name: Ryan M. Confer

EXHIBIT A

GENPREX, INC.

CONFIDENTIAL INFORMATION, ASSIGNMENT OF INVENTIONS AND NONCOMPETITION AGREEMENT

In consideration of new or continued employment with Genprex, Inc., a Delaware corporation, its subsidiaries, affiliates, predecessors, successors or assigns (together the "***Company***"), and for other consideration, the receipt and sufficiency of which are hereby acknowledged, I agree to the following:

1. *Confidential Information*.

(a) Company Information. I agree at all times during the term of my employment and thereafter, to hold in strictest confidence, and not to use, except for the exclusive benefit of the Company, or to disclose to any person, firm or entity without written authorization of an authorized officer of the Company (other than myself), any Confidential Information of the Company. I understand that "***Confidential Information***" means any non-public information that relates to the actual or anticipated business or research and development of the Company, Company proprietary information, technical data, trade secrets or know-how, including, but not limited to, research plans, research results, processes, methods, compositions, business plans, marketing plans, product plans, products, services, suppliers, customer lists and customers (including, but not limited to, customers of the Company on whom I call or with whom I become acquainted during the term of my service on behalf of the Company), markets, software, specifications, inventions, operations, procedures, compilations of data, technology, designs, finances or other business information disclosed to me by the Company either directly or indirectly in writing, orally or by drawings or observation. I further understand that Confidential Information does not include any of the foregoing items that has become publicly known and made generally available through no wrongful act of mine or of others who were under confidentiality obligations as to the item or items involved.

(b) Acknowledgments. I acknowledge that during my employment with the Company, I will have access to Confidential Information, all of which shall be made accessible to me only in strict confidence; that unauthorized disclosure of Confidential Information will damage the Company's business; and that the restrictions contained in this agreement are reasonable and necessary for the protection of the Company's legitimate business interests.

(c) Former Employer Information. I agree that I will not, during my employment with the Company, improperly use or disclose any proprietary information or trade secrets of any former or concurrent employer or other person or entity and that I will not bring onto the premises of the Company any unpublished document or proprietary information belonging to any such employer, person or entity.

(d) Third-Party Information. I recognize that the Company has received and in the future will receive from third parties their confidential or proprietary information subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. I agree to hold all such confidential or proprietary information in the strictest confidence and not to disclose it to any person, firm or corporation or to use it except as necessary in

carrying out my work for the Company consistent with the Company's agreement with such third party.

2. *Inventions*.

(a) Inventions Retained and Licensed (Shop Rights). I have attached hereto, as Exhibit A, a list describing all inventions, original works of authorship, developments, improvements, and trade secrets which were made by me prior to my employment with the Company which belong to me, which relate to the Company's proposed business, products or research and development, and which are not assigned to the Company hereunder (collectively referred to as "***Prior Inventions***"). If no such list is attached, I represent that there are no such Prior Inventions. If, in the course of my employment with the Company, I incorporate into a Company product, process or service a Prior Invention owned by me or in which I have an interest, the Company is hereby granted and shall have a nonexclusive, royalty-free, irrevocable, perpetual, worldwide license to make, have made, modify, use and sell such Prior Invention as part of or in connection with such product, process or service, and to practice any method related thereto.

(b) Assignment of Inventions. I agree that I will promptly make full written disclosure to the Company, will hold in trust for the sole right and benefit of the Company, will assign to the Company or its designee, and hereby do assign to the Company or its designee, all my right, title, and interest in and to any and all inventions, original works of authorship, developments, concepts, improvements, designs, discoveries, ideas, trademarks or trade secrets, whether or not patentable or registrable under copyright or similar laws, which I have solely or jointly conceived or developed or reduced to practice, or caused to be conceived or developed or reduced to practice and which I may solely or jointly conceive or develop or reduce to practice, or cause to be conceived or developed or reduced to practice, during the period of time I have been and am in the employ of the Company or prior to my employment with the Company when working with, for, or on behalf of the Company in a capacity other than as an employee (collectively referred to as "***Inventions***"), except as provided in Section 2(f) below. I further acknowledge that all original works of authorship which are made by me (solely or jointly with others) within the scope of and during the period of my employment with the Company and which are protectable by copyright are and shall be treated as "works made for hire" as that term is defined in the United States Copyright Act. I understand and agree that the decision whether or not to commercialize or market any Invention developed by me solely or jointly with others is within the Company's sole discretion and for the Company's sole benefit and that no royalty will be due to me as a result of the Company's efforts to commercialize or market any such Invention.

(c) Inventions Assigned to the United States. I agree to assign to the United States government all my right, title, and interest in and to any and all Inventions whenever such full title is required to be in the United States by a contract between the Company and the United States or any of its agencies.

(d) Maintenance of Records. I agree to keep and maintain adequate and current written records of all Inventions made by me (solely or jointly with others) during the term of my employment with the Company. The records will be in the form of notes, drawings and any other format that may be specified by the Company. The records will be available to and remain the sole property of the Company at all times.

(e) Patent and Copyright Registrations. I agree to assist the Company, or its designee, at the Company's expense, in every proper way to secure the Company's rights in the Inventions and any copyrights, patents, trademarks, trade secrets, mask work rights or other intellectual property rights relating thereto in any and all countries, including the disclosure to the Company of all pertinent information and data with respect thereto, the execution of all applications, specifications, oaths, assignments and all other instruments which the Company shall deem necessary in order to apply for and obtain such rights and in order to assign and convey to the Company, its successors, assigns, and nominees the sole and exclusive rights, title and interest in and to such Inventions, and any copyrights, patents, trademarks, trade secrets, mask work rights or other intellectual property rights relating thereto. I further agree that my obligation to execute or cause to be executed, when it is in my power to do so, any such instrument or papers shall continue after the termination of this Agreement. If the Company is unable because of my mental or physical incapacity or for any other reason to secure my signature to apply for or to pursue any application for any United States or foreign patents, trademarks or copyright registrations covering Inventions or original works of authorship assigned to the Company above, then I hereby irrevocably designate and appoint the Company and its duly authorized officers and agents as my agent and attorney in fact, to act for and in my behalf and stead to execute and file any such applications and to do all other lawfully permitted acts to further the prosecution and issuance of letters patent, trademarks or copyright registrations thereon with the same legal force and effect as if executed by me.

(f) No Self-Help or Unauthorized Code. I represent and warrant to the Company, that I will not knowingly infect, incorporate into or combine with any computer system, computer program, software product, database or computer storage media of the Company, except as known to and intended by the Company's senior management, any Unauthorized Code (as defined below).

"***Unauthorized Code***" means any back door, time bomb, drop dead device, virus, Trojan horse, worm, or other harmful routing, code, algorithm or hardware component designed or used: (i) to disable, erase, alter or harm any computer system, computer program, database, data, hardware or communications system, automatically, with the passage of time, or under the control of any person, or (ii) to access any computer system, computer program, database, data, hardware or communications system.

3. *Conflicting Employment*. I agree that, during the term of my employment with the Company, I will not engage in any other employment, occupation, consulting or other business activity directly related to the business in which the Company is now involved or becomes involved during the term of my employment, nor will I engage in any other activities that conflict with my obligations to the Company.

4. *Returning Company Documents*. I agree that, at the time of leaving the employ of the Company, I will deliver to the Company (and will not keep in my possession, recreate, copy or deliver to anyone else) any and all devices, documents, records, data, notes, reports, proposals, lists, correspondence, formulae, specifications, drawings, materials, equipment or property, or reproductions of any aforementioned items, developed by me pursuant to my employment with the Company or otherwise belonging to the Company. I understand and agree that compliance with this paragraph may require that data be removed from my personal computer equipment, and I agree to give the qualified personnel of the Company or its contractors access to such computer equipment for that purpose.

5. *Notification of New Employer*. In the event that I leave the employ of the Company, I hereby grant consent to notification by the Company to my new employer about my rights and obligations under this Agreement.

6. *Solicitation of Employees*. I agree that for a period of twelve (12) months immediately following the termination of my relationship with the Company for any reason, I shall not either directly or indirectly solicit, induce, recruit or encourage any of the Company's employees to leave their employment, or take away such employees, either for myself or for any other person or entity.

7. *Covenant Not to Compete*.

(a) Covenant. I agree that during the course of my employment and for twelve (12) months following the termination of my relationship with the Company (the "***Noncompetition Period***") for any reason, I will not, without the prior written consent of the Company, (i) serve as a partner, employee, consultant, officer, director, manager, agent, associate, investor, or (ii) directly or indirectly, own, purchase, organize or take preparatory steps for the organization of, or (iii) build, design, finance, acquire, lease, operate, manage, invest in, work or consult for or otherwise affiliate myself with any business, (a) in competition with or otherwise similar to the Company's business at the time my relationship with the Company terminated or (b) competing in any other line of business that I knew or had reason to know the Company had formed an intention to enter. This covenant shall not prohibit me from owning less than one percent of the securities of any company that is publicly traded on a nationally recognized stock exchange. The foregoing covenant shall cover my activities in every part of the Territory in which I may conduct business during the term of such covenant as set forth above. "***Territory***" shall mean (i) all counties in the State of Texas, (ii) all other states of the United States of America and (iii) all other countries of the world; *provided that*, with respect to clauses (ii) and (iii), the Company maintains non-trivial operations, facilities, or customers in such geographic area prior to the date of the termination of my relationship with the Company.

(b) Acknowledgement. I acknowledge that my fulfillment of the obligations contained in this Agreement is necessary to protect the Company's Confidential Information and to preserve the trade secrets, value and goodwill of the Company. I further acknowledge the time, geographic and scope limitations of my obligations under subsection (a) above are reasonable, especially in light of the Company's desire to protect its Confidential Information and trade secrets, and that I will not be precluded from gainful employment if I am obligated not to compete with the Company during the period and within the Territory as described above.

(c) Severability. The covenants contained in subsection (a) above shall be construed as a series of separate covenants, one for each county, state and country of any geographic area in the Territory. Except for geographic coverage, each such separate covenants shall be deemed identical in terms to the covenant contained in subsection (a) above. If, in any judicial proceeding, a court refuses to enforce any of such separate covenants (or any part thereof), then such unenforceable covenant (or such part) shall be eliminated from this Agreement to the extent necessary to permit the remaining separate covenants (or portions thereof) to be enforced. In the event the provisions of subsection (a) are deemed to exceed the time, geographic or scope limitations permitted by law, then such provisions shall be reformed to the maximum time, geographic or scope limitations, as the case may be, then permitted by law.

8. *Representations*. I agree to execute any proper oath or verify any proper document required to carry out the terms of this Agreement. I represent that my performance of all the terms of this Agreement will not breach any agreement to keep in confidence proprietary information acquired by me in confidence or in trust prior to my employment by the Company. I have not entered into, and I agree I will not enter into, any oral or written agreement in conflict herewith.

9. *Equitable Relief*. I acknowledge that the Company's Confidential Information is unique and that breach of my covenant of confidentiality contained in this Agreement will cause irreparable damage to the Company that is difficult to quantify in monetary terms. Accordingly, I consent to the Company obtaining equitable or injunctive relief against any threatened or actual breach of the terms of this Agreement without posting a bond or other security and I hereby waive any right to argue that the Company has an adequate remedy at law.

10. *At-Will Employment*. I UNDERSTAND AND ACKNOWLEDGE THAT MY EMPLOYMENT WITH THE COMPANY IS FOR AN UNSPECIFIED DURATION AND CONSTITUTES "AT-WILL" EMPLOYMENT. I ALSO UNDERSTAND THAT ANY REPRESENTATION TO THE CONTRARY IS UNAUTHORIZED AND NOT VALID UNLESS OBTAINED IN WRITING AND SIGNED BY THE CHIEF EXECUTIVE OFFICER OF THE COMPANY. I ACKNOWLEDGE THAT THIS EMPLOYMENT RELATIONSHIP MAY BE TERMINATED AT ANY TIME, WITH OR WITHOUT GOOD CAUSE OR FOR ANY OR NO CAUSE, AT THE OPTION EITHER OF THE COMPANY OR MYSELF, WITH OR WITHOUT NOTICE.

11. *General Provisions*.

(a) Governing Law; Consent to Personal Jurisdiction. This Agreement will be governed by the laws of the state of Texas without regard for conflicts of laws principles. I hereby expressly consent to the exclusive personal jurisdiction of the state and federal courts located in Texas for any lawsuit filed there against me by the Company arising from or relating to this Agreement.

(b) Entire Agreement. This Agreement sets forth the entire agreement and understanding between the Company and me relating to the subject matter herein and supersedes all prior discussions between us. No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, will be effective unless in writing signed by the party to be charged. Any subsequent change or changes in my duties, salary or compensation will not affect the validity or scope of this Agreement.

(c) Other Agreements. In the event of any direct conflict between any term of this Agreement and any term of any other agreement executed by me, the terms of this Agreement shall control. If I signed or sign any other agreement(s) relating to or arising from my employment with the company, all provisions of such agreement(s) that do not directly conflict with a provision of this Agreement shall not be affected, modified or superseded by this Agreement, but rather shall remain fully enforceable according to their terms.

(d) Severability. If one or more of the provisions in this Agreement are deemed void by law, then the remaining provisions will continue in full force and effect, and, with respect to the covenant not to compete in Section 7, the court is hereby authorized to reduce the duration or

geographic scope of such covenant as may be required so that in its reduced form the provision is enforceable to the fullest extent of the law.

(e) Survival. My obligations under this Agreement shall survive the termination of my employment with the Company and shall thereafter be enforceable whether or not such termination is claimed or found to be wrongful or to constitute or result in a breach of any contract or of any other duty owed or claimed to be owed to me by the Company or any Company employee, agent or contractor.

(f) Successors and Assigns. This Agreement will be binding upon my heirs, executors, administrators and other legal representatives and will be for the benefit of the Company, its successors, and its assigns.

(g) Construction. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent and no rules of strict construction will be applied against either party.

(h) Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be enforceable, and all of which together shall constitute one agreement.

12. *Acknowledgment*. I acknowledge and agree to each of the following items:

(a) I am executing this Agreement voluntarily and without any duress or undue influence by the Company or anyone else; and

(b) I have carefully read this Agreement. I have asked any questions needed for me to understand the terms, consequences and binding effect of this Agreement and fully understand them; and

(c) I sought the advice of an attorney of my choice if I wanted to before signing this Agreement.

Executed on this ____ day of _____, 20___.

EMPLOYEE

By: _____

Print Name: _____

GENPREX, INC.

By: _____

Print Name: _____

EXHIBIT A
LIST OF PRIOR INVENTIONS
AND ORIGINAL WORKS OF AUTHORSHIP

Title	*Date*	*Identifying Number or Brief Description*

____No inventions or improvements
____Additional Sheets Attached

Signature of Employee: _____
Print Name of Employee: _____

Date: _____

EXHIBIT B

GENERAL RELEASE AGREEMENT

In consideration of the severance and acceleration benefits (the "**Severance and Acceleration Benefits**") offered to me by Genprex, Inc. ("**Employer**") pursuant to my Employment Agreement with Employer dated April 13, 2018, (the "**Agreement**") and in connection with the termination of my employment, I agree to the following general release (the "**Release**").

1. On behalf of myself, my heirs, executors, administrators, successors, and assigns, I hereby fully and forever generally release and discharge Employer, its current, former and future parents, subsidiaries, affiliated companies, related entities, employee benefit plans, and their fiduciaries, predecessors, successors, officers, directors, shareholders, agents, employees and assigns (collectively, the "**Company**") from any and all claims, causes of action, and liabilities up through the date of my execution of the Release. The claims subject to this release include, but are not limited to, those relating to my employment with Employer and/or any predecessor or successor to Employer and the termination of such employment. All such claims (including related attorneys' fees and costs) are barred without regard to whether those claims are based on any alleged breach of a duty arising in statute, contract, or tort. This expressly includes waiver and release of any rights and claims arising under any and all laws, rules, regulations, and ordinances, including, but not limited to: Title VII of the Civil Rights Act of 1964; the Older Workers Benefit Protection Act; the Americans With Disabilities Act; the Age Discrimination in Employment Act; the Fair Labor Standards Act; the National Labor Relations Act; the Family and Medical Leave Act; the Employee Retirement Income Security Act of 1974, as amended ("**ERISA**"); the Workers Adjustment and Retraining Notification Act; the Equal Pay Act of 1963; and any similar law of any other state or governmental entity.

2. This Release does not extend to, and has no effect upon, any benefits that have accrued, and to which I have become vested, under any employee benefit plan within the meaning of ERISA sponsored by the Company.

3. In understanding the terms of the Release and my rights, I have been advised to consult with an attorney of my choice prior to executing the Release. I understand that nothing in this Release is intended to constitute an unlawful release or waiver of any of my rights under any laws and/or to prevent, impede, or interfere with my ability and/or rights, if any: (a) under applicable workers' compensation laws; (b) to seek unemployment benefits; (c) to file a charge or complaint with a government agency such as but not limited to the Equal Employment Opportunity Commission, the National Labor Relations Board, or any applicable state agency; (d) provide truthful testimony if under subpoena to do so, (e) file a claim with any state or federal agency or to participate or cooperate in such a matter, and/or (f) to challenge the validity of this release. Furthermore, notwithstanding any provisions and covenants herein, the Release shall not waive (a) any rights to indemnification I may have as an officer of Employer or otherwise in connection with my employment with Employer, under Employer's bylaws or other governing instruments or any agreement addressing such subject matter between Employer and me or under any merger or acquisition agreement addressing such subject matter, (b) any obligations owed to me pursuant to the Agreement, (c) my rights of insurance under any liability policy covering Employer's officers, or (d) any accrued but unpaid wages; any reimbursement for business expenses pursuant to Employer's policies for such reimbursements, any outstanding claims for benefits or payments under any benefit plans of Employer or subsidiaries, any accrued but unused vacation, any ongoing agreements evidencing outstanding equity awards granted to

me, any obligations owed to me pursuant to the terms of outstanding written agreements between myself and Employer and any claims I may not release as a matter of law, including indemnification claims under applicable law.

4. I understand and agree that Employer will not provide me with the Severance and Acceleration Benefits unless I execute the Release. I also understand that I have received or will receive, regardless of the execution of the Release, all wages owed to me together with any accrued but unused vacation pay, less applicable withholdings and deductions, earned through my termination date.

5. As part of my existing and continuing obligations to Employer, I have returned to Employer all documents (and all copies thereof) and other property belonging to Employer that I have had in my possession at any time, including but not limited to files, notes, drawings, records, business plans and forecasts, financial information, specification, computer-recorded information, tangible property (including, but not limited to, computers, laptops, pagers, etc.), credit cards, entry cards, identification badges and keys; and any materials of any kind which contain or embody any proprietary or confidential information of Employer (and all reproductions thereof). I understand that, even if I did not sign the Release, I am still bound by any and all confidential/proprietary/trade secret information, non-disclosure and inventions assignment agreement(s) signed by me in connection with my employment with Employer, or with a predecessor or successor of Employer, pursuant to the terms of such agreement(s).

6. I represent and warrant that I am the sole owner of all claims relating to my employment with Employer and/or with any predecessor of Employer, and that I have not assigned or transferred any claims relating to my employment to any other person or entity.

7. I agree to keep the Severance and Acceleration Benefits and the provisions of this Release confidential and not to reveal their contents to anyone except my lawyer, my spouse or other immediate family member, and/or my financial consultant, or as required by legal process or applicable law.

8. I understand and agree that the Release shall not be construed at any time as an admission of liability or wrongdoing by either the Company or me.

9. I understand and agree that the Release shall not be construed at any time as an admission of liability or wrongdoing by either the Company or myself.

10. I agree that I will not make any negative or disparaging statements or comments, either as fact or as opinion, about the Company, its employees, officers, directors, shareholders, vendors, products or services, business, technologies, market position or performance. Nothing in this paragraph shall prohibit me from providing truthful information in response to a subpoena or other legal process.

11. Any controversy or any claim arising out of or relating to the interpretation, enforceability or breach of the Release shall be settled in the courts of Texas in accordance with the Agreement.

12. I agree that I have had at least twenty-one (21) calendar days in which to consider whether to execute the Release, no one hurried me into executing the Release during that period, and no one coerced me into executing the Release. I understand that the offer of the Severance and Acceleration Benefits and the Release shall expire on the twenty-second (22nd) calendar day after my

employment termination date if I have not accepted it by that time. I further understand that Employer's obligations under the Release shall not become effective or enforceable until the eighth (8th) calendar day after the date I sign the Release provided that I have timely delivered it to Employer (the "**Effective Date**") and that in the seven (7) day period following the date I deliver a signed copy of the Release to Employer I understand that I may revoke my acceptance of the Release. I understand that the Severance and Acceleration Benefits will become available to me on or about the fourteenth (14th) calendar day after the Effective Date.

13. In executing the Release, I acknowledge that I have not relied upon any statement made by Employer, or any of its representatives or employees, with regard to the Release unless the representation is specifically included herein. Furthermore, the Release and the Agreement contain our entire understanding regarding eligibility for and the payment of severance benefits and supersede any or all prior representations and agreements regarding the subject matter. Once effective and enforceable, this agreement can only be changed by another written agreement signed by me and an authorized representative of Employer.

14. Should any provision of the Release be determined by an arbitrator, court of competent jurisdiction, or government agency to be wholly or partially invalid or unenforceable, the legality, validity and enforceability of the remaining parts, terms, or provisions are intended to remain in full force and effect. Specifically, should a court, arbitrator, or agency conclude that a particular claim may not be released as a matter of law, it is the intention of the parties that the general release and the waiver of unknown claims above shall otherwise remain effective to release any and all other claims. I acknowledge that I have obtained sufficient information to intelligently exercise my own judgment regarding the terms of the Release before executing the Release.

[SIGNATURE PAGE TO GENERAL RELEASE AGREEMENT FOLLOWS]

EXECUTIVE'S ACCEPTANCE OF RELEASE

BEFORE SIGNING MY NAME TO THE RELEASE, I STATE THE FOLLOWING: I HAVE READ THE RELEASE, I UNDERSTAND IT AND I KNOW THAT I AM GIVING UP IMPORTANT RIGHTS. I HAVE OBTAINED SUFFICIENT INFORMATION TO INTELLIGENTLY EXERCISE MY OWN JUDGMENT. I HAVE BEEN ADVISED THAT I SHOULD CONSULT WITH AN ATTORNEY BEFORE SIGNING IT, AND I HAVE SIGNED THE RELEASE KNOWINGLY AND VOLUNTARILY.

Date delivered to employee _____, _____.

Executed this _____ day of _____, _____.

Signature

Name (Please Print)

[SIGNATURE PAGE TO GENERAL RELEASE AGREEMENT]

Exhibit 31.1

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, J. Rodney Varner, certify that:

1. I have reviewed this annual report on Form 10-K of Genprex, Inc., a Delaware corporation (the "registrant");

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 17, 2018

By: /s/ J. RODNEY VARNER
J. Rodney Varner
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, J. Rodney Varner, certify that:

1. I have reviewed this annual report on Form 10-K of Genprex, Inc., a Delaware corporation (the "registrant");

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 17, 2018

By: /s/ RYAN M. CONFER
Ryan M. Confer
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Genprex, Inc. (the "Company") on Form 10-K for the period ending December 31, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: April 17, 2018

By: /s/ J. RODNEY VARNER

J. Rodney Varner
Chief Executive Officer
(Principal Executive Officer)

This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Genprex, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-K), irrespective of any general incorporation language contained in such filing.

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Genprex, Inc. (the "Company") on Form 10-K for the period ending December 31, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: April 17, 2018

By: /s/ RYAN M. CONFER
Ryan M. Confer
Chief Financial Officer
(Principal Financial Officer)

This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Genprex, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-K), irrespective of any general incorporation language contained in such filing.

{01368/0005/00217771.1}