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

Form 10-K

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2017

[ ] 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: 001-36426

AquaBounty Technologies, Inc.

(Exact name of the registrant as specified in its charter)

Delaware	**04-3156167**
(State or other jurisdiction of incorporation or organization)	(I.R.S. employer identification no.)

Two Mill & Main Place, Suite 395
Maynard, Massachusetts 01754
(978) 648-6000

(Address and telephone number of the registrant's principal executive offices)

Securities registered pursuant to Section 12(b) of the Securities Exchange Act of 1934 (the "Exchange Act"):

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

Securities registered pursuant to Section 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 of 1933.
Yes ☐ No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act.
Yes ☐ No x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act 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 x 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 during the preceding 12 months (or such shorter period that the registrant was required to submit and post such files).
Yes x No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the 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. x

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or 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. (Check one):

Large accelerated filer ☐ Accelerated filer ☐ Non-accelerated filer x Smaller reporting company ☐ Emerging growth company x

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 pursuant to Section 13(a) of the Exchange Act. ☐

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

At June 30, 2017, the aggregate market value of the 2,082,699 shares of common stock held by non-affiliates of the registrant was approximately $16.7 million. At March 2, 2018, the registrant had 12,598,552 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement for its Annual Meeting of Shareholders to be held on May 1, 2018 (the "2018 Proxy Statement"), are incorporated by reference into Part III of this Annual Report on Form 10-K.

ANNUAL REPORT ON FORM 10-K
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2017
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Cautionary Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K, particularly the sections titled "Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business," contains forward looking statements. All statements other than present and historical facts and conditions contained in this 10-K, including statements regarding our future results of operations and financial positions, business strategy, plans, and objectives for future operations, are forward-looking statements. When used in this 10-K, the words "anticipate," "believe," "can," "could," "estimate," "expect," "intend," "is designed to," "may," "might," "plan," "potential," "predict," "objective," "should," or the negative of these and similar expressions identify forward-looking statements. These forward-looking statements include statements that are not historical facts, including statements regarding management's expectations for future financial and operational performance and operating expenditures, expected growth, and business outlook; the nature of and progress toward our commercialization plan; the future introduction of our products to consumers; the countries in which we may obtain regulatory approval and the progress toward such approvals; any continued backing by our majority shareholder, Intrexon Corporation ("Intrexon"); the volume of eggs or fish we may be able to produce; the timeline for our production of saleable fish; the expected advantages of land-based systems over sea cage production; the validity and impact of legal actions; the potential for lifting of the FDA Import Alert and the issuance of labeling guidance; the completion of renovations at our new hatchery facility and the construction of a pilot-scale grow-out unit; and the establishment of a larger-scale grow-out facility.

We have based these forward-looking statements on our current expectations, assumptions, estimates, and projections. While we believe these expectations, assumptions, estimates, and projections are reasonable, such forward-looking statements are only predictions and involve known and unknown risks, uncertainties, and other factors, many of which are outside of our control, which could cause our actual results, performance, or achievements to differ materially from any results, performance, or achievements expressed or implied by such forward-looking statements. Forward-looking statements in this 10-K include, but are not limited to, statements about:

- the anticipated benefits and characteristics of our AquAdvantage® Salmon product;
- The implementation and likelihood of achieving the business plan, future revenue, and operating results;
- developments concerning our research projects;
- our expectations regarding our ability to successfully enter new markets or develop additional products;
- our competitive position and developments and projections relating to our competitors and our industry;
- expectations regarding anticipated operating results;
- our cash position and ability to raise additional capital to finance our activities;
- our ability to protect our intellectual property and other proprietary rights and technologies;
- the impact of and our ability to adapt to changes in laws or regulations and policies;
- the ability to secure any necessary regulatory approvals to commercialize any products;
- the rate and degree of market acceptance of any products developed through the application of genetic engineering, including genetically modified fish;
- our ability to retain and recruit key personnel;
- the success of any of our future acquisitions or investments;
- our expectations regarding the time during which we will be an emerging growth company under the Jumpstart Our Business Startups Act (the "JOBS Act"); and
- our estimates regarding expenses, future revenue, capital requirements, and needs for additional financing.

We caution you that the foregoing list may not contain all of the risks to which the forward-looking statements made in this 10-K are subject. We may not actually achieve the plans, intentions, or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions, and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included, particularly in the section titled "Risk Factors," that could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures, or investments that we may make.

Given these risks and uncertainties, you are cautioned not to place undue reliance on such forward-looking statements. These forward-looking statements are made only as of the date of this 10-K. We do not undertake and specifically decline any obligation to update any such statements or to publicly announce the results of any revisions to any such statements to reflect future events or developments unless required by federal securities law. New risks emerge from time to time, and it is not possible for us to predict all such risks.

Where You Can Find More Information

We file with the Securities and Exchange Commission (the "SEC") periodic reports and other information, including our Annual Report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports. The SEC maintains an internet site at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file, as we do, electronically with the SEC.

All of these documents are available free of charge on our website, www.aquabounty.com, and will be provided free of charge to any shareholders requesting a copy by writing to: Corporate Secretary, AquaBounty Technologies, Inc., 2 Mill & Main Place, Suite 395, Maynard Massachusetts 01754, Telephone: (978) 648-6000. We use our website as a channel for routine distribution of important information, including news releases, analyst presentations, and financial information. In addition, our website allows investors and other interested persons to sign up to automatically receive e-mail alerts when we post news releases and financial information on our website. The information contained on, or accessible from, our website or in any other report or document we file with or furnish to the SEC is intended to be inactive textual references only, and is not incorporated by reference into this Annual Report on Form 10-K.

Part I

Item 1. Business

Overview

AquaBounty Technologies, Inc., a Delaware corporation, was formed on December 17, 1991. Unless otherwise noted or indicated by the context, the terms "AquaBounty," "the Company," "we," "us," and "our" refer to AquaBounty Technologies, Inc., together with its consolidated subsidiaries. Headquartered in Maynard, Massachusetts, we are a biotechnology company focused on enhancing productivity in the fast-growing aquaculture market. Our principal place of business is located at 2 Mill & Main Place, Suite 395, Maynard, Massachusetts 01754, and our telephone number at that location is (978) 648-6000.

On January 19, 2017, our common stock began trading on the Nasdaq Capital Market under the symbol "AQB." Prior to our listing on the Nasdaq Capital Market, we were listed in 2006 on the Alternative Investment Market ("AIM"), the London Stock Exchange's international market for smaller growing companies, initially under the symbol "ABTX" and, commencing in 2014, under the symbol "ABTU." For the period from January 19, 2017, to May 31, 2017, we were dual listed on both the Nasdaq Capital Market and AIM. Effective June 1, 2017, we voluntarily delisted our common stock from AIM.

We use genetic modification and other molecular biologic techniques to improve the quality and yield of fish stocks and help the aquaculture industry meet growing consumer demand. Since 2008, we have been focused on the regulatory approval of our AquAdvantage Salmon product. Since that time, we completed the New Animal Drug Application ("NADA") process with the U.S. Food and Drug Administration ("FDA") for AquAdvantage Salmon, and, on November 19, 2015, we received approval of the NADA for the production, sale, and consumption of AquAdvantage Salmon.

On May 19, 2016, we received approval from Health Canada, the department of the government of Canada with responsibility for national public health, for the production, sale, and consumption of AquAdvantage Salmon as a novel food and feed in Canada. Previously, we had received approval from Environment Canada, the agency of the government of Canada with responsibility for regulating environmental policies and issues, which decided that AquAdvantage Salmon was not harmful to the environment or human health when produced in contained facilities. Consequently, we have now received approvals for our product from what we believe are two of the most respected and rigorous regulatory agencies in the world.

We believe that receipt of FDA approval for AquAdvantage Salmon not only represents a major milestone for us, but is also a significant pioneering development in introducing transgenic animals into the food chain. Although genetically modified crops have been accepted by consumers in the United States and South America for some time, AquAdvantage Salmon is the first genetically modified animal to be approved for human consumption. We intend to deploy AquAdvantage Salmon in land-based, contained, freshwater aquaculture systems, which would allow inland fish farms to be established close to major demand centers in a profitable and environmentally sustainable manner. The technology underlying AquAdvantage Salmon offers the potential to reintroduce salmon aquaculture in the United States, which imported more than $2.6 billion of Atlantic salmon in 2016 according to the U.S. Department of Commerce (the "DOC").

See "—Our Product" for more information on AquAdvantage Salmon and "—Regulatory Environment" for more information on our completed NADA process with the FDA.

Based on a provision added to the 2016 Omnibus Appropriations Act, the FDA is required to maintain an Import Alert prohibiting import of AquAdvantage Salmon into the United States until such labeling guidance is finalized. For more information, see "Risk Factors - Risks Relating to Our Business - We may become subject to increasing regulation, changes in existing regulations, and review of existing regulatory decisions."

We have incurred significant losses since our inception. We expect to continue to incur significant losses for the foreseeable future, and we may never achieve or maintain profitability. We have made our first sales of AquAdvantage Salmon from our farm site in Panama and expect modest revenues during 2018, with more significant revenues expected in the second half of 2019 once our facilities in Indiana and on Prince Edward Island are in full production. For the fiscal years ended December 31, 2017, 2016, and 2015, we experienced net losses of $9.3 million, $8.5 million, and $7.0 million, respectively.

Management is pursuing several paths to revenue generation that follow different timelines, including production of our fish at our existing farm sites, purchase or construction of additional production facilities in North America, and licensing or partnership arrangements. Additionally, management is pursuing regulatory approval for AquAdvantage Salmon in Brazil, Argentina, China, and Chile.

The Aquaculture Industry

Aquaculture is the farming of aquatic organisms such as fish, shellfish, crustaceans, and aquatic plants. It involves cultivating freshwater or saltwater species under controlled conditions, as an alternative to the commercial harvesting of wild species of aquatic organisms. According to Research and Markets, an industry research organization, the global aquaculture market was valued at $176.5 billion in 2017 and is expected to grow at an annual rate of 4.5% to reach a market size of $219.4 billion by the year 2022. We

believe that the aquaculture industry, and in particular salmon farming, is poised for significant additional growth in the coming years as the global population expands.

Salmon Farming

Atlantic salmon farming is a major industry in the cold-water countries of the northern and southern hemispheres. According to the United Nations Food and Agriculture Organization ("FAO"), Atlantic salmon aquaculture production grew by approximately 6.7% annually between 2000 and 2015. Total production volume of farmed Atlantic salmon during 2015 was just under 2.4 million metric tons with a value over $11.9 billion. Industry analyst Kontali Analyse expects increases in demand to drive continued production growth through 2020, although at a lower annual rate of approximately 3.0%, primarily due to supply constraints.

Below is a break-down by major producing country for the time period 2010 through 2015, which is the last year for which data is readily available.

Worldwide Atlantic Salmon Production by Country (in metric tons)

Country	2010	2011	2012	2013	2014	2015
Canada	101,544	110,328	116,101	97,629	86,347	121,926
United States	19,535	18,595	19,295	18,866	18,719	18,719
Chile	123,233	264,349	399,678	492,329	644,459	608,546
United Kingdom	154,633	158,310	162,547	163,518	179,397	172,143
Ireland	15,691	12,196	12,440	9,125	9,368	13,116
Norway	939,536	1,064,868	1,232,095	1,168,324	1,258,356	1,303,346
Faroe Islands	45,391	60,473	76,564	75,821	86,454	80,600
Australia	31,807	36,662	43,982	42,776	41,591	48,330
All other	5,682	9,607	11,696	25,549	23,376	14,850
WW Volume (mt)	1,437,052	1,735,388	2,074,398	2,093,937	2,348,067	2,381,576

Pricing

According to the DOC, which tracks the volume and value of Atlantic salmon imports into the United States, from 2011 to 2016 the average wholesale price of Atlantic salmon imported into the country increased from $3.81 per pound ($8.39/kilogram) to $4.30 per pound ($9.48/kilogram).

The daily spot (farm-gate or wholesale market) price for Atlantic salmon is very volatile due to the species' long production cycle, which typically ranges between two and three years, and its short shelf life, which typically ranges between two and three weeks. Farmed salmon is typically sold as fresh and thus must be consumed within this timeframe. Consequently, the available supply is very inelastic over the short term, while demand can be very elastic due to price, season, or market size.

Major Producers

The global Atlantic salmon farming industry includes several very large companies with operations in each of the major producing countries. Consolidation has been evident in the past few years as producers attempt to gain competitive cost advantages while overcoming the regulatory challenges associated with developing new marine farm sites. Major market producers, and their primary country of operation, include the following companies: Marine Harvest (Norway), Leroy Seafood Group ASA (Norway), Cermaq ASA (Norway), SalMar ASA (Norway), Empresas AquaChile S.A. (Chile), and Cooke Aquaculture Inc. (Canada).

U.S. Atlantic Salmon Market

According to the DOC, in 2016 the United States imported a record 619 million pounds (279 thousand metric tons) of Atlantic salmon with an aggregate market value of approximately $2.66 billion, or $4.30 per pound. The DOC also reported that over 75% of the total quantity of Atlantic salmon imports into the United States in 2016 originated from Chile and Canada. The Atlantic salmon farming industry in the United States contracted significantly beginning in the 1990s in the face of environmental concerns and lower costs of production from foreign sources, notably Chile. According to the FAO, a total of only 41 million pounds of farmed Atlantic salmon was produced in the United States in 2015, representing only 6.3% of the total farmed Atlantic salmon supplied.

Despite intensive public consumer education campaigns promoting its health benefits, seafood consumption in the United States still lags behind other protein sources and trails consumption in overseas markets. According to the DOC, during the period from 2007 to 2012, annual seafood consumption in the United States ranged between 14 and 16 pounds per capita, significantly behind consumption of chicken (80 to 85 pounds), beef (57 to 65 pounds), and pork (46 to 50 pounds). In comparison, according to SeaFood Business magazine, average seafood consumption throughout Europe was 48.5 pounds per capita in 2012. In 2016, average seafood consumption in the US was 14.9 pounds according to the National Fisheries Institute and the National Oceanic and Atmospheric Administration.

Perception of Genetically Modified Atlantic Salmon

Though Atlantic salmon is the second-most-consumed seafood in the United States, activist groups opposing genetic modifications of organisms have pressured a number of retail food outlets and grocery chains to publicly state that they will not carry genetically modified Atlantic salmon.

However, we do not expect that this will have a significant impact on overall consumer demand and product placement in the marketplace generally, and in particular the wholesale marketplace. To date, large wholesalers have not followed the example of these retailers, and we believe that there will be sufficient demand from smaller retailers, wholesalers, and institutional seafood buyers to absorb our projected production. We believe that FDA approval reinforces the message that AquAdvantage Salmon is a safe and nutritious seafood product that is equivalent to conventional farmed Atlantic salmon. This belief is based in part on the results of a 2014 survey released by the International Food Information Council, titled "Consumer Perceptions of Food Technology," which indicated that 59% of consumers are "somewhat" or "very" likely to buy genetically engineered seafood if the FDA deems it safe.

There are surveys that have been cited by various non-governmental organizations ("NGOs") that indicate that consumers are reluctant to purchase genetically modified food and that they would like to see labeling in order to avoid it. Consumer acceptance could also be adversely affected if AquAdvantage Salmon were found or believed to grow to a larger final size than traditional Atlantic salmon. In addition, our regulatory burdens could also increase. Internally generated data has shown that, although AquAdvantage Salmon exhibit an accelerated growth rate in early development stages, they do not grow to a larger end size than conventional Atlantic salmon. In response to these perceptions, we plan to educate consumers on the benefits of AquAdvantage Salmon versus conventional Atlantic salmon, including 25% better feed conversion (meaning less feed is needed to produce the same harvest), a lower carbon footprint due to local production, reduced impact on the environment and reduced exposure of the fish to environmental toxins due to use of land-based aquaculture systems, and reduced reliance on chemotherapeutics due to improved biosecurity.

Atlantic Salmon Disease Impact

An area of concern with current Atlantic salmon farming production is the environmental impact and the cost of disease management associated with those operations. Salmon farming systems, particularly conventional, open sea-cage systems, are vulnerable to disease introduction and transmission, primarily from the marine environment or adjacent culture systems. The economic impact of disease to these production systems can be significant, as farmers must incur the cost of preventative measures, such as vaccines and antibiotics and then, if infected, the cost of lost or reduced harvests.

The most prevalent disease and health management issues are infectious salmon anemia ("ISA") and sea lice. ISA is a viral disease in Atlantic salmon, and outbreaks have occurred in virtually every major salmon farming geography since 1984, including a major event in Chile in 2008 that impacted the country's production for three years. There is currently no effective treatment for the disease, and the salmon farming industry relies on vaccines and health management practices to mitigate its impact. Though primarily occurring in traditional sea-cage farming environments, ISA can also be introduced into populations that are in land-based, self-contained facilities. In November 2009, certain fish from our land-based hatchery on Prince Edward Island tested positive for ISA. In response, we notified the Canadian Department of Fisheries and Oceans ("DFO") following discovery of the virus, which was diagnosed as a strain with low pathogenicity and of unknown origin. We conducted an extensive screening program of all fish in the facility, destroying any fish that tested positive for ISA.

Subsequent tests conducted by DFO of fish in the facility began in March 2010 and indicated that the virus had been eliminated from the facility. We enacted improvements in biosecurity and facility operation, and the facility regained its disease-free status from DFO after four consecutive tests indicated no presence of the virus. The fish health status of the facility continues to be monitored by the Canadian Food Inspection Agency. The facility has not had any reportable disease outbreaks since the isolated incident in 2009.

Sea lice are marine parasites that occur naturally and attach to the skin of Atlantic salmon. Though a few lice on a large salmon present no problem, the presence of significant numbers can adversely impact the health and aesthetic appearance of the fish. The cost of managing sea lice in sea-cage farming environments can be significant.

The closed, contained, land-based production systems, using technology referred to as recirculating aquaculture systems ("RAS"), proposed for the grow-out of AquAdvantage Salmon, are less susceptible, though not immune, to the same disease-related pressures because this type of culture system is isolated from the environment. RAS facilities employ sophisticated water treatment technology including the use of ozone, salt treatment, and ultraviolet radiation to kill potential bacterial, fungal, or viral pathogens that might enter the system. In addition, incoming water is similarly filtered and treated prior to entering the system, and water quality is regularly measured as part of the standard procedures. The fish in RAS facilities are generally not vaccinated against typical fish diseases, and no antibiotics, pesticides, or pharmacological agents are typically required. RAS facilities employ effective biosecurity to prevent disease by reducing or eliminating the introduction of pathogens and continuously treating the water to assure optimal fish health. RAS production will allow the AquAdvantage Salmon to be raised in optimized conditions with total control of the water coming in and going out of the system, while recirculating greater than 95% of the water used.

In contrast, sea cage, or conventional aquaculture fish, are housed in large cages in coastal waterways exposed to currents which can bring a variety of pathogens in contact with the farmed salmon. The presence of pathogens in an uncontrolled environment is a universally accepted fact in human and animal health. The presence of disease agents in these uncontrolled water currents could result

in infection and spread of infection within the captive population. The risks and outcomes of conventional, open sea-cage systems are well established, and are often evidenced by outbreaks of a variety of bacterial and viral diseases as well as water fouling and contamination due to algal blooms and similar events. Furthermore, the use of antibiotics, vaccines, and other pharmacological agents is similarly well documented in conventional systems, presenting a risk to the environment and also to the consumers of treated fish.

Further, stocking RAS facilities with disease-free eggs results in a much higher degree of biosecurity and protection from disease. We expect that production and economic losses due to disease will be significantly less in the closed, land-based culture systems proposed for the production of AquAdvantage Salmon, because of greater control over environmental conditions and superior biosecurity than in traditional Atlantic salmon production systems.

Restrictions on Atlantic Salmon Farming

Environmental concerns have led certain states to impose legislative and regulatory restrictions or bans on the farming of Atlantic salmon. This could reduce the number of potential sites available to us for production farms in the United States. Nevertheless, we expect that many states will offer excellent potential sites for AquAdvantage Salmon production systems.

Our Product

Our product, AquAdvantage Salmon, is a genetically modified Atlantic salmon that can grow to marketable size in about half the time of traditional farmed Atlantic salmon. By placing a second copy of the salmon growth hormone gene under the control of an alternative genetic promoter (gene switch) from the ocean pout, an edible marine fish, more consistent levels of growth hormone are released, which accelerates the early stages of the salmon's development. By accelerating growth in the early stages of rearing, these fish can reach a marketable size sooner. In the case of Atlantic salmon, this can reduce farming time from 28 to 36 months to 18 to 20 months.

This accelerated growth has several advantages, both economic and environmental. The faster life cycle, from birth to harvesting, of AquAdvantage Salmon as compared to conventional salmon will allow it to be produced more economically in contained inland systems. Although this requires greater capital investment than the sea cage approach, we believe that the higher costs will be offset by more efficient growth, 25% better feed conversion, reduced exposure to environmental threats, and more effective control of disease. In addition, with a facility located nearer to the major food markets, we believe there will be savings on transportation of the harvested stock, a reduced carbon footprint, and an improved ability to get fresh product to market faster.

Plan of Operation

Our core business is to develop and market superior products to improve productivity in aquaculture. Our first product is the AquAdvantage Salmon, which received FDA and Health Canada approval as the first genetically modified animal for human consumption as food. Our business plan contemplates that we will initially establish two production facilities to prove the economic benefit and consumer acceptance for our product. We have begun construction of a 250-metric-ton production unit in Rollo Bay, Prince Edward Island, which will be operational in 2018. We have also acquired an existing facility in Albany, Indiana, which is currently undergoing upgrades to increase its annual production capacity to 1200 metric tons. Both of these facilities must be approved by the FDA prior to their initial stocking with AquAdvantage Salmon, but we anticipate both to be operational in 2018 with a first harvest of commercial production in late 2019.

Once these farm sites reach full production operation, we intend to explore additional channels to commercialize the product. Such efforts may involve producing AquAdvantage Salmon eggs for commercial production, licensing the technology to salmon growers, or continuing to grow out the salmon in our own land-based facilities.

In order to scale up our egg production capabilities, we have begun construction on a new broodstock facility at our farm site in Rollo Bay. Once completed and at full capacity, this facility will be capable of producing sufficient fertilized AquAdvantage Salmon eggs to satisfy our requirements for at least the next five years.

We intend to continue investing in research and development. We anticipate that our research and development expenditures will increase as we continue to develop our other AquAdvantage fish products and initiate new research projects under the Exclusive Channel Collaboration Agreement that we entered into in February 2013 with Intrexon Corporation (the "ECC"). See the section of this 10-K titled "Certain Relationships and Related Party Transactions-Exclusive Channel Collaboration Agreement." The timeline for development projects will depend on many factors, but could extend beyond ten to fifteen years, taking into account the time needed for development, regulatory approval, and pre-marketing activities.

Any additions to headcount in our research and production activities will depend on the number of development activities we undertake and the success of our commercialization efforts for AquAdvantage Salmon. We expect to increase our headcount in administration at our corporate headquarters as we begin to commercialize our product.

Our Markets

With regulatory approvals in the United States and Canada, we plan to market AquAdvantage Salmon throughout both countries. In addition, we intend to focus on those significant fish farming markets where we believe we will have success in gaining further

regulatory approvals and consumer acceptance. We currently expect to market AquAdvantage Salmon in the United States and Canada, as well as Panama, Argentina, Brazil, China, and Chile following receipt of required regulatory approval in the respective jurisdictions.

If we pursue a commercial strategy to sell AquAdvantage Salmon eggs, we expect the cost of production for each AquAdvantage Salmon egg will be higher than the industry norm, but will fall significantly once production volume increases. While no pricing structure has been set, we believe that the cost savings associated with AquAdvantage Salmon resulting from the ability to spread fixed costs over a greater number of fish and reduced grow-out time will allow AquAdvantage Salmon eggs to sell at a premium to standard Atlantic salmon eggs.

If we pursue a commercial strategy to grow out AquAdvantage Salmon in our own land-based facilities, we expect our production costs to be lower than traditional salmon farming due to the faster growth rate and 25% better feed conversion rate of our fish, along with lower relative transportation costs.

The salmon distribution system in the United States is complex and varied. Participants include fishermen, fish farmers, processors, importers, secondary processors, broadline distributors, specialty seafood distributors, brokers, traders, and many different kinds of retail and food service companies. Salmon distribution channels are evolving, with fewer and larger distributors handling an increasing share of total volume and an increasing share of salmon being sold directly by large fish-farming companies and large wild salmon processors to large retail and food service chains. We expect that harvested AquAdvantage Salmon will be sold into this distribution network.

Regulatory Environment

United States Regulation of Genetically Modified Products

The genetic modification of food using the tools of modern biotechnology is regulated in the United States by two government organizations, the United States Department of Agriculture (“USDA”) for genetically modified plants and the FDA for genetically modified animals.

The regulatory system for genetically modified plants is based upon the Coordinated Framework, issued by the Office of Science and Technology Policy in 1986 and regulated by the USDA’s Bureau of Regulatory Services and Animal and Plant Health Inspection Services under the Federal Plant Pest Act. Certain genetically modified plants are regulated under the Federal Insecticide, Fungicide, and Rodenticide Act by the Environmental Protection Agency (“EPA”). The USDA and the Environmental Protection Agency are also required to determine the environmental impact of a proposed application under the National Environmental Policy Act (“NEPA”). The process for plants is essentially one of issuing test permits and data dossiers for the product’s proposed use, followed by a process of de-regulation or approval if the application is found to be acceptable under the applicable regulations.

The regulatory process for food and animal feed is also based upon the Coordinated Framework, but the enabling legislation is the Federal Food, Drug, and Cosmetic Act, along with NEPA. In the case of animals for food or materials for feed, the FDA process is a pre-approval review followed by an approval if the application is acceptable under the relevant legislation.

We opened an Investigational New Animal Drug file for AquAdvantage Salmon with the FDA in 1995. At that time, there was no defined regulatory framework for the regulation of genetically engineered animals. There were, however, certain studies that were generally acknowledged to be necessary for an eventual approval process. We commenced work on those studies and began a phased submission of studies to the FDA that ultimately was responsive to each technical section of the NADA. These technical sections require submission of studies relating to molecular characterization of the construct; molecular characterization of AquAdvantage Salmon lineage; phenotypic characterization of AquAdvantage Salmon; a genotypic and phenotypic durability plan; support for environmental, food, and feed safety; and claim validation. The FDA’s phased review process, which included a cycle of study conduct, submission, review, and acceptance, continued over the period from 1995 to 2010. The following is a summary of certain submissions relating to the technical section of the NADA that we made to the FDA’s Center for Veterinary Medicine (“CVM”) during this period:

- In August 2006, we submitted to the CVM the last correspondence for the review of the molecular characterization of the AquAdvantage construct. On October 6, 2006, we received a letter from the CVM stating “the data and information that you have submitted adequately supports the molecular characterization of the opAFP-GHc2 construct.”
- In May 2007, we submitted to the CVM the last correspondence for the review of the molecular characterization of the AquAdvantage Salmon lineage. On July 2, 2008, we received a letter from the CVM stating “[w]e have reviewed the data and information you have submitted in support of the molecular characterization of the genetically engineered (GE) salmon referred to as ‘AquAdvantage Salmon’ and find that it is adequate support to conclude the molecular characterization of the inserted rDNA construct and GE animal lineage step of our review.”
- In July 2009, we submitted to the CVM the last of the correspondence for the review of AquAdvantage Salmon claim validation. On March 12, 2010, we received a letter from the CVM stating “[w]e have reviewed the data and information that you have submitted in support of the Claim Validation of the genetically engineered (GE) salmon referred to as ‘AquAdvantage Salmon’, and consider this section complete.”

- In December 2009, we submitted to the CVM the last of the correspondence for the review of the phenotypic characterization of AquAdvantage Salmon. On June 4, 2010, we received a letter from the CVM stating "[w]e have reviewed the data and information that you have submitted in support of the phenotypic characterization of the genetically engineered (GE) salmon referred to as 'AquAdvantage Salmon' and find that it is adequate support to conclude the phenotypic characterization step of our review."
- In March 2010, we submitted to the CVM the final correspondence for the review of data submitted in support of the safety of food from AquAdvantage Salmon. On August 27, 2010, we received a letter from the CVM stating "[w]e have reviewed the data and information that you have submitted in support of the food safety assessment of food from the genetically engineered (GE) salmon referred to as 'AquAdvantage Salmon' and find that it is adequate to conclude our evaluation of food safety."
- In April 2010, we submitted to the CVM the last of the correspondence for the review of the genotypic and phenotypic durability of AquAdvantage Salmon. On June 11, 2010, we received a letter from the CVM stating "[w]e have reviewed the data and information that you have submitted in support of the Genotypic and Phenotypic Durability of the genetically engineered (GE) salmon referred to as 'AquAdvantage Salmon' and find that you have adequately supported the Genotypic and Phenotypic Durability step of our review."

By the spring of 2010, we had submitted to the FDA data for each technical submission requirement for approval under the NADA. By the fall of 2010, we had received from the FDA technical section complete letters for each submission requirement.

Following this process, the FDA concluded that AquAdvantage Salmon "is as safe as food from [conventional] salmon, and that there is a reasonable certainty of no harm from consumption of food" from AquAdvantage Salmon.

In September 2010, the FDA held a public meeting of its Veterinary Medicine Advisory Committee (the "VMAC") to review the FDA's findings regarding AquAdvantage Salmon. The VMAC, which was disbanded in September 2013, was a group of independent experts charged with providing scientific advice to the FDA on animal drug and food issues. The VMAC had no authoritative power regarding the approval of the NADA but was convened to listen to the results of the FDA review process and to provide an outside opinion on the FDA's conclusions. At the public meeting, the FDA posed four questions to the VMAC relating to the safety and effectiveness of AquAdvantage Salmon, including safety to the animal, safety of consumption, safety to the environment, and effectiveness of the growth gene. The Chairman's Report of the VMAC relating to the public meeting stated that (1) the VMAC found no evidence to conclude that the gene construct was unsafe to the animal; (2) a large number of the test results studied by the VMAC established similarities and equivalence between AquAdvantage Salmon and traditional Atlantic salmon and that the levels of growth hormone contained in AquAdvantage Salmon did not appear to be biologically relevant from a food safety standpoint, although the VMAC noted that it could not conclude from the data submitted that AquAdvantage Salmon would be more or less allergenic than traditional Atlantic salmon; (3) the multitude of barriers to escape of AquAdvantage Salmon at both our Prince Edward Island and Panama facilities were extensive, mitigating the potential environmental impact of escape; and (4) there was evidence to support our claim that AquAdvantage Salmon grows faster than traditional Atlantic salmon. The VMAC did not vote or make a recommendation on whether to approve the NADA, and certain members of the panel recommended additional monitoring to determine whether the growing conditions could cause health abnormalities. While the FDA is not bound by the VMAC's recommendations or opinions, the VMAC did not dispute the FDA's conclusions that AquAdvantage Salmon is safe for human consumption.

On December 26, 2012, the FDA published its Environmental Assessment ("EA") and its preliminary Finding of No Significant Impact ("FONSI") determinations for AquAdvantage Salmon, confirming that an approval of the pending NADA would not have an adverse effect on the environment. The FDA opened up a 60-day period for public comment on the EA and preliminary FONSI. On February 14, 2013, the FDA extended the period for public comment by an additional 60 days, and that period expired April 26, 2013.

In July 2014, we submitted to the FDA revised label and package insert information, which updated label and package insert information that we initially submitted to the FDA in April 2011. The submission of revised label and package insert information was in response to a June 2014 request from the FDA to revise and update the initial submission. Under the NADA review process, we were required to submit to the FDA from time to time information responsive to an "all other information" portion of the NADA, which requires the submission of information, not included in any of the technical sections, that comes to our attention and is pertinent to an evaluation of the safety or effectiveness of AquAdvantage Salmon. We submitted our last supplement to the "all other information" portion of the NADA on July 15, 2015, and the FDA formally acknowledged its acceptance of this submission on November 18, 2015.

On November 19, 2015, the FDA finalized the FONSI on the EA and issued an approval letter for the NADA for AquAdvantage Salmon. This approval was published in the Federal Register on November 24, 2015. In conjunction with the approval, the FDA issued a guidance document on the voluntary labeling of food derived from Atlantic salmon that has or has not been genetically engineered. That document was intended to assist those manufacturers who wish to voluntarily make the distinction on the labeling of their food products.

Following the FDA approval, in April 2016, a coalition of NGOs sued the FDA for their approval of AquAdvantage Salmon. The NGOs claim that the FDA failed to analyze and prevent risks to wild salmon and the environment. Among other things, the claimants are seeking a judgment that the FDA decision to approve AquAdvantage Salmon is not authorized by the Federal Food, Drug and Cosmetic Act ("FFDCA"); that an injunction be issued requiring the FDA to withdraw its assertion of jurisdiction over genetically modified organism ("GMO") animals; that the FDA decision to approve AquAdvantage Salmon and it EA and FONSI be declared in violation of the FFDCA; and that the decision to approve the AquAdvantage Salmon NADA be vacated. Although we believe that these claims lack merit, this legal action is ongoing and is currently in the discovery phase.

In January 2016, the U.S. Congress passed the 2016 Omnibus Appropriations Act ("Appropriations Act"), which was signed into law. The Appropriations Act contained an amendment that directed the FDA to issue final guidance for labeling of AquAdvantage Salmon as a GMO, despite the absence of any GMO labeling requirement in the FDA's NADA approval. Current FDA policy does not require labeling for method of production if there is no material difference compared with its traditional counterpart, and the FDA arrived at the decision that AquAdvantage Salmon is as safe to eat, and as nutritious, as any non-genetically engineered Atlantic salmon. However, given this directive, the FDA issued an Import Alert on AquAdvantage Salmon and stated that a temporary hold was being implemented to comply with language in the Appropriations Act, which was due to expire on September 30, 2016, but which was extended through a series of continuing resolutions to March 23, 2018. At this time, there can be no certainty as to when or if the Import Alert will be lifted or when the FDA will finalize its labeling guidance.

In addition to FDA approval of the NADA for AquAdvantage Salmon, our operating sites in the United States and Panama and on Prince Edward Island, as well as those we plan to build or purchase in the future, must be registered with, and periodically inspected by, the FDA as drug manufacturing establishments. Drug manufacturing establishments that supply FDA-regulated products for use in the United States must comply with the product's conditions for approval, whether located in the United States or in a foreign country. Each of our Panama and Prince Edward Island operating sites is currently registered with the FDA, and the FDA has performed inspections and site visits at each facility. Our new facilities in Albany, Indiana, and in Rollo Bay, Prince Edward Island, will require FDA inspection and registration as drug manufacturing establishments.

With the FDA approval of our NADA, we must continue to comply with FDA requirements not only for manufacturing, but also for labeling, advertising, record keeping, and reporting to the FDA of adverse events and other information. Failure to comply with these requirements could subject us to administrative or judicial enforcement actions, including but not limited to product seizures, injunctions, civil penalties, criminal prosecution, refusals to approve new products, or withdrawal of existing approvals, as well as increased product liability exposure.

Other Regulatory Approvals

In February 2012, we filed a Novel Food application for AquAdvantage Salmon with Health Canada. In conjunction with this application, we filed to register AquAdvantage Salmon as a Novel Feed with the Canadian Food Inspection Agency, a prerequisite for a Novel Food approval. Health Canada and the Canadian Food Inspection Agency reviewed our data submission on the safety of AquAdvantage Salmon as a food and feed, respectively. On May 19, 2016, Health Canada concluded that AquAdvantage Salmon does not raise concerns related to food safety. Health Canada also noted in its opinion that fillets derived from AquAdvantage Salmon are as safe and nutritious as fillets from currently available farmed Atlantic salmon.

In April 2013, we filed a New Substances Notification for AquAdvantage Salmon with Environment Canada. On November 25, 2013, Environment Canada concluded that AquAdvantage Salmon is not harmful to the environment or human health when produced in contained facilities. This ruling, which was subject to a judicial review brought about by certain environmental groups on administrative procedural grounds, recognized that our Canadian hatchery, which produces sterile, all-female eggs, was no longer solely a research facility but could produce eggs on a commercial scale without harm to the environment or human health. In December 2015, the Federal Court in Canada ruled that the Ministers of Environment and Health decision to allow production of AquAdvantage Salmon in Canada for commercial use was "reasonable and made in the manner prescribed by the Canadian Environmental Protection Act." Accordingly, the court dismissed the entire application brought before it by the Ecology Action Centre and Living Oceans Society. This ruling was appealed by those organizations, but the Canadian Federal Court of Appeal dismissed the appeal on October 21, 2016.

We are required to comply with regulatory and permitting requirements in Panama, where we operate a demonstration farm for AquAdvantage Salmon. In November 2010, we received authority from Autoridad Nacional del Ambiente ("ANAM"), the Panamanian environmental regulator, to operate our facility in Panama. In March 2012, we were notified by ANAM that we had failed to comply with specified permitting, inspection, reporting, and other regulatory requirements in connection with the construction and operation of the facility. We initiated a program to remedy the deficiencies, and the issues were formally resolved in August 2014. We paid a fine of $9,500 in connection with the resolution of these issues, and the matter is now closed. We currently have all regulatory approvals necessary to operate our demonstration farm in Panama and we have obtained, and are in compliance in all material respects with, all permits necessary to operate that facility. We have moved forward with an application for the commercial production, sale, and consumption of AquAdvantage Salmon in Panama. This application process is new, and we do not have information on when, or if, the application will be approved. However, in June 2017, we received approval from the National Biosafety Commission in Panama for the production, harvest and export of AquAdvantage Salmon.

We have also received approval from regulators to conduct field trials for AquAdvantage Salmon in Argentina and Brazil, and those trials are currently on-going. We intend to initiate additional regulatory filings outside the United States in selected markets that offer a clear regulatory path and market opportunity.

Grow-out of AquAdvantage Salmon in the United States will require compliance with environmental regulations and local site permitting statutes. In addition, every production site for AquAdvantage Salmon in the United States will require approval by the FDA of both a Supplemental NADA and a site-specific EA, as well as compliance with local permitting requirements for construction of grow-out facilities. We expect that we will incur costs to comply with these environmental and regulatory requirements, which could take several years to complete for each production site. We are currently unable to estimate these costs, but they may be significant.

Raw Materials

We previously sourced the unfertilized eggs that we use for internal research and trials of our AquAdvantage Salmon eggs from a Canadian supplier. After our FDA approval, we purchased a salmon farm near our hatchery on Prince Edward Island to maintain our own source of unfertilized eggs. We are currently constructing a broodstock facility on this site, which, when completed and at full capacity, will provide sufficient fertilized AquAdvantage Salmon eggs to satisfy our production requirements for at least the next five years.

Intellectual Property

The AquAdvantage fish program is based upon a single, specific molecular modification in fish that results in more rapid growth in early development. This enables shorter production cycles and increased efficiency of production. Prior to February 2014, we were a party to a license agreement with Genesis Group, Inc., an affiliate of Memorial University of Newfoundland (“Genesis”), and an affiliate of the Hospital for Sick Children of Toronto (“HSC”) related to our transgenic fish program. Under the terms of this agreement, we were required to make an annual royalty payment of $25 thousand or revenue-based royalty payments equal to five percent of any gross revenues generated from products that utilize the technology covered under the license agreement. No revenue-based royalty payments were made under this agreement. The patent for the licensed technology, which had been issued in certain salmon producing countries, expired in August 2013. In February 2014, we entered into a new license agreement with Genesis and HSC that replaced the prior license agreement. Under the new agreement, we hold a global, perpetual, royalty-free, fully paid, sub-licensable, assignable, non-exclusive right to the technology covering genetically modified salmonid fish that express endogenous growth hormone under the control of a protein gene promoter from an edible fish. In consideration for this license, we agreed to pay to Genesis a one-time payment of $140 thousand, which amount was paid on March 6, 2014, but no additional patents are contemplated under this agreement. Despite the expiration of the patent for the licensed technology, we believe that the degree of know-how in the molecular modification process and the regulatory timescales associated with approval of genetically modified fish would present significant barriers to competition.

We rely on a combination of patent, trademark, and trade secret laws in the United States and applicable foreign jurisdictions, as well as confidentiality procedures and contractual provisions, to protect our proprietary technology, processes, and brand. In December 2015, we were granted a U.S. patent for our molecular sterility system, which renders sterile the progeny of any female fish carrying a defined maternal sterility gene. While the technology described in the sterility system patent is not currently used nor required under any of our current regulatory approvals, the technology may be desirable in the future to obtain or maintain regulatory approvals.

Patents for this technology have been granted regarding our rights to use certain technologies under the ECC with Intrexon. For more information, see the section of this 10-K titled “Certain Relationships and Related Party Transactions-Exclusive Channel Collaboration Agreement.”

For information regarding our rights to use certain technologies under the ECC with Intrexon, see “—Research and Development.”

Seasonality

Atlantic salmon spawn once per year, so there is a natural seasonality of three to five months in the production of Atlantic salmon eggs for commercial use. This natural seasonality can be lengthened through the use of photoperiod techniques to make Atlantic salmon eggs available year-round. We are not currently capable of producing AquAdvantage Salmon eggs on a year-round basis. Currently, we produce AquAdvantage Salmon eggs during the period of January through April of each year. We expect that, with the establishment of our new broodstock facility at our Rollo Bay farm site on Prince Edward Island, we will be able to produce AquAdvantage Salmon eggs year-round.

Competition

There are four major commercial salmonid breeding companies that market proprietary lines of Atlantic salmon eggs, as well as many small producers of salmonid eggs. Additionally, many of the largest Atlantic salmon producers maintain their own egg production capabilities. We do not believe, however, that we have a direct competitor for genetically modified, growth-enhanced Atlantic salmon eggs.

The industry and market for farmed Atlantic salmon is dominated by a group of large, multinational corporations with entrenched distribution channels, as discussed in the section of this 10-K titled “Business-The Aquaculture Industry-Major Producers.” While we do not believe that we have a direct competitor for genetically modified, growth-enhanced Atlantic salmon, we do believe that our product will need to compete with non-genetically modified salmon.

Research and Development

As of December 31, 2017, we had nineteen employees dedicated to research and development. Our primary research and development operations are located in our owned hatchery on Prince Edward Island. In addition, we contract some research activities to the Center for Aquaculture Technologies, Inc., our former research group, which was spun-off and sold to Tethys in 2012. We incurred expenses of $3.4 million in 2017, $3.4 million in 2016, and $3.3 million in 2015 on research and development activities.

In February 2013, we entered into the ECC with Intrexon pursuant to which we are permitted to use Intrexon’s UltraVector® and other technology platforms to develop and commercialize additional genetically modified traits in finfish for human consumption. The ECC grants us a worldwide license to use certain patents and other intellectual property of Intrexon in connection with the research, development, use, importing, manufacture, sale, and offer for sale of products involving DNA administered to finfish for human consumption. This license is exclusive with respect to any development, selling, offering for sale, or other commercialization of developed products, and otherwise is non-exclusive. Under the ECC and subject to certain exceptions, we are responsible for, among other things, the performance of the program, including development, commercialization, and certain aspects of manufacturing developed products. Among other things, Intrexon is responsible for the costs of establishing manufacturing capabilities and facilities for the bulk manufacture of certain products developed under the program; certain other aspects of manufacturing; costs of discovery-stage research with respect to platform improvements; and costs of filing, prosecution, and maintenance of Intrexon’s patents. We agreed to pay Intrexon, on a quarterly basis, 16.66% of the gross profits calculated for each developed product. We also agreed to pay Intrexon 50% of the quarterly revenue obtained from a sublicensee in the event of a sublicensing arrangement. In addition, we agreed to reimburse Intrexon for the costs of certain services provided by Intrexon.

Since its execution in February 2013, we and Intrexon have commenced development on two projects under the ECC, both of which are in their early stages. The first project, which commenced in June 2013, is a research effort to determine the effectiveness of utilizing precise genome engineering technology to produce desirable features in a finfish. The second project, which commenced in September 2013, is a research effort to determine if the use of germ cells to perform gene modification is effective in reducing the time required to develop new traits in finfish. If these technology-enabling projects prove to be successful, they will allow us to add additional beneficial traits to AquAdvantage Salmon.

In addition to the projects being undertaken under the ECC, we are exploring the potential development of a range of additional products, including a second generation of AquAdvantage Salmon to ensure 100% sterility, a line of AquAdvantage® Trout that grows faster than traditional rainbow trout, molecular sterility systems to provide an improved means of sterility for farmed fish, infection control in shrimp, and improved methods for generating transgenic fish.

Our research and development expenditures are directly tied to the number of projects that we choose to undertake. We expect to increase our development efforts as we commence additional projects either in-house or under our ECC with Intrexon. We expect that these projects could result in an increase in our research and development expenditures in the range of 5% to 10% per year.

Employees

As of December 31, 2017, we had thirty-seven employees. None of our employees are represented by a labor union, and we consider our employee relations to be good.

Financial Information About Geographic Areas

Our corporate headquarters are located in Maynard, Massachusetts, and consist of approximately 3,500 square feet of office space under a lease that expires in March 2023. We operate a demonstration farm for AquAdvantage Salmon in Panama under a lease that expires in May 2018. On Prince Edward Island, Canada, we own both a hatchery in Fortune and a salmon farm, consisting of a hatchery, a grow-out facility, and a broodstock facility, in Rollo Bay, and we own a production grow-out facility in Albany, Indiana. We believe that the spaces that we lease and own are sufficient to meet our current and near-term needs.

Recent Events

Our common stock was listed on AIM, the London Stock Exchange’s international market for smaller growing companies, from 2006 through May 31, 2017, initially under the symbol “ABTX” and, commencing in 2014, under the symbol “ABTU.” On January 19, 2017, our common stock began “regular way” trading on the Nasdaq Capital Market, and, effective June 1, 2017, we voluntarily delisted our common stock from AIM.

On January 18, 2017, we sold 2,421,073 shares of our common stock to Intrexon, our controlling shareholder, for proceeds of approximately $25 million. Following the closing of this sale, Intrexon distributed 1,776,557 shares of our common stock that it held prior to the closing via a share dividend to its shareholders.

On January 17, 2018, we completed a public offering of 3,692,307 shares of our common stock and 4,246,153 warrants for net proceeds of approximately $10.6 million. Intrexon participated in this offering, purchasing 1,538,461 shares of our common stock and warrants for $5 million.

Management is evaluating several paths to revenue generation that follow different timelines, including production of our fish at our existing farm sites in Panama, Indiana, Rollo Bay, and additional facilities in North America; sale of AquAdvantage Salmon eggs to Atlantic salmon farmers; and partnerships or licensing agreements. Depending on which path or combination of paths is chosen, we expect only modest revenues during 2018, with more significant revenues once our Indiana and Rollo Bay facilities are in full production.

Emerging Growth Company Status

We are an "emerging growth company," as defined in Section 2(a) of the Securities Act, as amended by the Jumpstart Our Business Startups Act (the "JOBS Act") enacted on April 5, 2012. For as long as we are an "emerging growth company," we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies." These include, but are not limited to, not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act"); an exemption from the adoption of new or revised financial accounting standards until they would apply to private companies; an exemption from compliance with any new requirements adopted by the Public Company Accounting Oversight Board (the "PCAOB") that require mandatory audit firm rotation or a supplement to the auditors' report in which the auditor would be required to provide additional information about the audit and the financial statements of the issuer; reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements; and exemptions from the requirements of holding advisory "say-on-pay" votes on executive compensation and shareholder advisory votes on golden parachute compensation not previously approved.

Section 107 of the JOBS Act 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 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 elected to take advantage of this extended transition period. Our financial statements may therefore not be comparable to those of companies that comply with such new or revised accounting standards. Section 107 of the JOBS Act provides that our decision not to opt out of the extended transition period for complying with new or revised accounting standards is irrevocable.

We may take advantage of these exemptions 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 upon the earliest to occur of (1) the last day of the fiscal year in which we have more than $1.07 billion in annual revenue; (2) the date we qualify as a "large accelerated filer," with at least $700.0 million of equity securities held by non-affiliates; (3) the issuance, in any three-year period, by our company of more than $1.0 billion in non-convertible debt securities; and (4) December 31, 2023, which is the last day of the fiscal year following the fifth anniversary of the date of the first sale of our common stock pursuant to an effective registration statement filed under the Securities Act.

Our Executive Officers

The following table sets forth certain information regarding our directors and executive officers as of March 2, 2018:

Name	Age	Position(s)
Ronald L. Stotish	68	Director, Chief Executive Officer and President
David A. Frank	57	Chief Financial Officer and Treasurer
Alejandro Rojas	56	Chief Operating Officer, AquaBounty Farms
Christopher Martin	51	General Counsel and Corporate Secretary

Our executive officers are elected by our Board of Directors and hold office until removed by the Board of Directors, and until their successors have been duly elected and qualified or until their earlier resignation, retirement, removal, or death.

Ronald L. Stotish, Ph.D., Chief Executive Officer and President. Dr. Stotish was appointed Executive Director, President, and Chief Executive Officer of AquaBounty in May 2008. He joined AquaBounty in 2006 as Vice- President for Regulatory Affairs and, most recently, was Senior Vice-President for R&D and Regulatory Affairs. Prior to joining AquaBounty, Dr. Stotish was Executive Vice-President for R&D at MetaMorphix, Inc. He has served as Vice-President for Pharmaceutical R&D at Fort Dodge Animal Health and held a variety of positions at American Cyanamid. He began his career in research at Merck & Co. Dr. Stotish has degrees in biochemistry and over 40 years' experience in the discovery, development, and commercialization of new animal health products. Dr. Stotish has a Bachelor of Science degree from Pennsylvania State University and a Master of Science and a Ph.D. from Rutgers University.

David A. Frank, M.B.A. Chief Financial Officer and Treasurer. Mr. Frank was appointed Chief Financial Officer and Treasurer of AquaBounty in October 2007. Previously he served as President and General Manager of TekCel LLC, a subsidiary of Magellan

Biosciences, after serving as Magellan's Chief Financial Officer since the company's founding in 2004 and as TekCel's Chief Financial Officer. Mr. Frank has over 30 years of financial management experience, including as Chief Financial Officer of SmartEnergy, an independent energy supplier, as Corporate Controller for Moldflow Corporation, and in financial roles at PerSeptive Biosystems, Inc., Lotus Development Corporation, Apollo Computer, Inc., and Honeywell International, Inc. He has a Bachelor of Science in finance and accounting from Boston College and a Master of Business Administration from Babson College.

Alejandro Rojas, D.V.M. Chief Operating Officer, AquaBounty Farms. Dr. Rojas joined AquaBounty as the Chief Operating Officer, AquaBounty Farms in February 2014. He formerly was the Production and Technical Manager for Marine Harvest from 1988 to 2000, where he was responsible for operations and the production of salmonids in Chile. He was also responsible for managing Quality Control Labs, Environmental Programs, and Fish Health Programs. Dr. Rojas has a doctorate in Veterinary Medicine and a Bachelor of Science degree from the Universidad Austral de Chile and for the past 14 years has been a Technical Advisor and Consultant to numerous global aquaculture and biotech companies working with marine fish, including salmon, seabass, seabream, and barramundi. His areas of expertise include benchmarking and market studies, technical and economic analysis for M&A activities, new species development in Latin America, the Middle East, and Africa, and consulting on fish production, aquatic health, environment, and biosecurity programs to private companies and governments.

Christopher Martin, J.D. General Counsel and Corporate Secretary. Mr. Martin has served as our General Counsel since June 2015 and as our Corporate Secretary since July 2015. Prior to joining AquaBounty, he was Assistant General Counsel at athenahealth, Inc. from 2012 to 2014 and Senior Corporate Counsel from 2008 to 2012. He also served as Corporate Counsel at LeMaitre Vascular, Inc. from 2006 to 2008 and practiced in the areas of commercial, corporate, finance, and intellectual property law with Hemenway & Barnes LLP in Boston and Cummings & Lockwood LLC in Connecticut. Mr. Martin holds a Bachelor of Arts from Stanford University and a Juris Doctor from the University of California, Berkeley (Boalt Hall).

Item 1A. Risk Factors

The following are certain risk factors that could affect our business, financial condition, and results of operations. You should carefully consider the risks described below, together with the other information contained in this 10-K, including our consolidated financial statements and the related notes. We cannot assure you that any of the events discussed in the risk factors below will not occur. These risks could have a material and adverse impact on our business, results of operations, financial condition, or prospects. If that were to happen, the trading price of our common stock could decline, and you could lose all or part of your investment.

This Annual Report on Form 10-K also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks faced by us described below and elsewhere in this Annual Report on Form 10-K. See "Cautionary Note Regarding Forward-Looking Statements" for information relating to these forward-looking statements.

Risks Relating to our Business

We have a history of net losses and will likely incur future losses, at least during the next five years, and we may not achieve or maintain profitability.

Although we were established in 1991, we did not start to develop our current product portfolio until 1996. In the period since incorporation to September 30, 2017, we have incurred net losses of approximately $108.5 million. These losses reflect our personnel, research and development, and marketing costs. We are constructing a 250-metric-ton annual capacity production facility in Rollo Bay, and in 2017 we acquired a facility in Albany, Indiana, which is undergoing renovations to increase its annual capacity to 1,200 metric tons. Modest revenues are expected from our Panama farm during 2018, with more significant revenues expected in late 2019 once our new facilities are in full production. However, our ability to realize revenues and the timing thereof are not certain, and achieving revenues does not assure that we will become profitable.

We will need substantial additional capital in the future in order to fund our business.

We do not expect significant sales until late 2019, at the earliest, and to date we have not generated any profit and expect to incur losses for the foreseeable future and may never become profitable. Therefore, based on our current business plan, we anticipate a need to raise further funds. Any issuance of shares of our common stock could have an effect of depressing the market price of shares of our common stock through dilution of earnings per share or otherwise.

The amount and timing of the expenditures needed to achieve our development and commercialization programs will depend on numerous factors, some of which are outside our control. Changes in our plans could result in the need for additional funds. The primary factor impacting the amount and timing of any additional expenditure is the timing of the stocking of our two new production facilities in Rollo Bay and Indiana, which are dependent upon the completion of construction and renovation activities at the sites and the approval from the FDA to operate the sites with AquAdvantage Salmon. Until these two sites become operational and reach full capacity, we will have only modest revenues from our Panama site to cover net losses, which were $9.3 million and $8.5 million in 2017 and 2016, respectively.

Following the completion of the first harvests from our two new production facilities, we plan to evaluate additional commercialization alternatives for our product through the channel we determine to be most advantageous to the Company. Such efforts may involve producing AquAdvantage Salmon eggs for commercial production, licensing the technology to salmon growers, and/or continuing to grow out the salmon in our own land-based facilities. If we elect to grow out the fish ourselves, we would need to invest in the construction or purchase of additional land-based recirculating aquaculture system facilities. These facilities have estimated construction costs of $17 million for each 1,000 metric tons of output.

There can be no assurance that additional funds will be available on a timely basis, on favorable terms, or at all, or that such funds, if raised, would be sufficient to enable us to continue to implement our business strategy.

To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interests of holders of our common stock will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of holders of our common stock. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures, or declaring dividends. If we raise additional funds through government or other third-party funding; marketing and distribution arrangements; or other collaborations, strategic alliances, or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs, or product candidates or to grant licenses on terms that may not be favorable to us.

Our ability to generate revenue to support our operations depends on obtaining additional regulatory approvals for AquAdvantage Salmon, the receipt of which is uncertain, and the maintenance of existing approvals.

As a genetically modified animal for human consumption, AquAdvantage Salmon required approval from the FDA in the United States and the Ministers of Health and Environment in Canada before it could be produced, sold, or consumed in those countries. Our FDA approval covers the production of our eggs in our hatchery in Canada and the grow-out of our eggs in our facility in Panama. FDA approvals will be needed for each additional facility we plan to bring on line. Additionally, we will require local regulatory approvals in other countries in which we hope to operate. There is no guarantee that we will receive or be able to maintain regulatory approvals from the FDA or other regulatory bodies or that there will not be a significant delay before approval. There is also no guarantee that any approvals granted will not be subject to onerous obligations in relation to matters such as production or labeling, or that any regulator will not require additional data prior to approval, which may be costly and time-consuming to acquire.

We will be required to continue to comply with FDA and foreign regulations.

Even with the approval of the NADA and other regulatory applications for AquAdvantage Salmon, we must continue to comply with FDA and other regulatory requirements not only for manufacturing, but also for labeling, advertising, record keeping, and reporting to the FDA and other regulators of adverse events and other information. Failure to comply with these requirements could subject us to administrative or judicial enforcement actions, including but not limited to product seizures, injunctions, civil penalties, criminal prosecution, refusals to approve new products, or withdrawal of existing approvals, as well as increased product liability exposure, any of which could have a material adverse effect on our business, financial condition, or results of operations.

Ethical, legal, and social concerns about genetically modified organisms could limit or prevent the use of our products and limit our revenues.

Our technologies involve the use of genetically modified organisms. Public perception about the safety and environmental hazards of, and ethical concerns over, genetically engineered products could influence public acceptance of our technologies and products. Activist groups opposing genetic modifications of organisms have in the past pressured a number of retail food outlets and grocery chains to publicly state that they will not carry genetically modified Atlantic salmon. If we are not able to overcome the ethical, legal, and social concerns relating to genetic engineering, products using our technologies may not be accepted in the marketplace, and demand for our products could fall short of what we expect. These concerns could also result in increased expenses, regulatory scrutiny, delays, or other impediments to implementation of our business plan.

The subject of genetically modified organisms has received negative publicity, which has aroused public debate. This adverse publicity could lead to greater regulation and trade restrictions on imports of genetically altered products. Further, there is a concern that products produced using our technologies could be perceived to cause adverse events, which could also lead to negative publicity.

We may have limited success in gaining consumer acceptance of our products.

There is an active and vocal group of opponents to genetically modified organisms who wish to ban or restrict the technology and who, at a minimum, hope to sway consumer perceptions and acceptance of this technology. Their efforts include regulatory legal challenges and labeling campaigns for genetically modified products, as well as application of pressure to consumer retail outlets seeking a commitment not to carry genetically modified Atlantic salmon. Consumer acceptance could also be adversely affected if AquAdvantage Salmon were found, or believed, to grow to a larger final size than traditional Atlantic salmon. We may not be able to overcome the negative consumer perceptions that these organizations have instilled against our products.

We or regulatory agencies approving of our products may be sued by non-governmental organizations and others who are opposed to the development or commercialization of genetically modified organisms.

There are many organizations in the United States and elsewhere that are fundamentally opposed to the development of genetically modified organisms. These groups have a history of bringing legal action against companies attempting to bring new biotechnology products to market. On December 23, 2013, an application was filed by two NGOs with the Canadian Federal Court seeking judicial review to declare invalid the decision by the Canadian Minister of the Environment to publish in the Canadian Gazette a Significant New Activity Notice ("SNAN") with respect to AquAdvantage Salmon. Though the Canadian Federal Court dismissed this challenge, the petitioners filed an appeal of the ruling, which was subsequently dismissed by the Canadian Federal Court of Appeal on October 21, 2016.

In the United States, a coalition of NGOs filed a complaint on March 30, 2016, against the FDA, the United States Fish and Wildlife Service, and related individuals for their roles in the approval of AquAdvantage Salmon, claiming that the FDA had no statutory authority to regulate genetically modified animals, and, if it did, that the agency failed to analyze and implement measures to mitigate ecological, environmental, and socioeconomic risks that could impact wild salmon and the environment, including the risk that AquAdvantage Salmon could escape and threaten endangered wild salmon stocks. Among other things, the claimants are seeking a judgment that the FDA decision to approve AquAdvantage Salmon is not authorized by the FFDCA, that an injunction be issued requiring the FDA to withdraw its assertion of jurisdiction over animals that contain GMOs, that the FDA decision to approve AquAdvantage Salmon and its EA and FONSI determinations be declared in violation of the FFDCA, and that the decision to approve the AquAdvantage Salmon NADA be vacated.

Though we believe this legal action lacks merit, it is currently ongoing, and may take considerable time to resolve. We may be subject to future litigation brought by one or more of these organizations in their attempt to block the development or sale of our product. In addition, animal rights groups and various other organizations and individuals have attempted to stop genetic engineering activities by pressing for legislation and additional regulation in these areas. To the extent the actions of these organizations are successful, commercialization of our product may be restricted, and our business may be adversely affected. Such actions, even if unsuccessful, may distract management from its operational priorities and may cause us to incur significant costs.

We may have to label our AquAdvantage Salmon at the retail level as containing a genetically modified organism, which could negatively impact consumer acceptance.

Until the passage of the National Sea Grant College Program Reauthorization in July 2016, which contained the National Bioengineered Food Disclosure Standard, or Labeling Act, our AquAdvantage Salmon did not need to be labeled as containing a genetically modified organism, because it had been deemed to be "substantially equivalent" to the traditional product. However, because several states either passed or considered new laws specifying varying requirements for labeling products sold at the retail level that contain genetically modified ingredients, the United States Congress passed the Labeling Act to establish a national standard for package labeling for foods containing genetically modified ingredients. The United States Department of Agriculture has until July 2018 to implement this new law. In addition, a bill was introduced in the United States Senate in July 2017 that could, if it became law, require labeling specific to AquAdvantage Salmon, rather than applicable to all genetically modified foods. Labeling requirements could cause consumers to view the label as either a warning or as an indication that AquAdvantage Salmon is inferior to traditional Atlantic salmon, which could negatively impact consumer acceptance of our product.

The markets in which we intend to sell our products are subject to significant regulations.

In addition to our FDA approval for the sale and consumption of AquAdvantage Salmon in the United States, we will also be subject to state and local regulations and permitting requirements, which could impact or delay the commercialization and commencement of revenue generation from the sale of AquAdvantage Salmon. International sales are also subject to rules and regulations promulgated by regulatory bodies within foreign jurisdictions. There can be no assurance that foreign, state, or local regulatory bodies will approve the sale and consumption of our product in their jurisdiction.

We may incur significant costs complying with environmental, health, and safety laws and regulations, and failure to comply with these laws and regulations could expose us to significant liabilities.

Our operations are subject to a variety of federal, state, local, and international laws and regulations governing, among other matters, the use, generation, manufacture, transportation, international shipment, storage, handling, disposal of, and human exposure to our products in both the United States and overseas, including regulation by governmental regulatory agencies, such as the FDA and the U.S. Environmental Protection Agency. We have incurred, and will continue to incur, capital and operating expenditures and other costs in the ordinary course of our business in complying with these laws and regulations.

We may become subject to increasing regulation, changes in existing regulations, and review of existing regulatory decisions.

Regulations pertaining to genetically modified animals are still developing and could change from their present state. In addition, new legislation could require new regulatory frameworks, changes in existing regulation, or re-evaluation of prior regulatory

decisions. For example, despite the FDA's final determination that AquAdvantage Salmon may be sold without being labeled as a GMO, a provision added to the 2016 Omnibus Appropriations Act requires the FDA to issue final guidance for such labeling. The FDA is therefore obligated to maintain an Import Alert prohibiting import of AquAdvantage Salmon until such guidance is finalized or the provision is no longer effective. Similarly, in July 2017, a bill was introduced in the United States Senate that could, if it became law, require labeling unique to, as well as re-examination of the environmental assessments used by the FDA in its 2015 approval of the NADA for AquAdvantage Salmon. Such legislatively imposed review of a completed regulatory process could result in new restrictions on, or delays in, commercialization of our product in the United States. We could be subject to increasing or more onerous regulatory hurdles as we attempt to commercialize our product, which could require us to incur significant additional capital and operating expenditures and other costs in complying with these laws and regulations. Our regulatory burdens could also increase if AquAdvantage Salmon are found, or believed, to grow to a larger final size than traditional Atlantic salmon.

Atlantic salmon farming is restricted in certain states.

Concerns regarding the possible environmental impact from AquAdvantage Salmon have led Washington and California to impose legislative and regulatory restrictions or bans on its farming. In addition, some states, such as Alaska, have enacted restrictions on Atlantic salmon farming generally. While we currently believe that many states will offer excellent potential sites for AquAdvantage Salmon production systems, if additional states adopt similar restrictions, or otherwise prohibit the rearing of AquAdvantage Salmon in those states, the number of potential sites available to us for production farms in the United States could be reduced.

The loss of AquAdvantage Salmon broodstock could result in the loss of our commercial technology.

AquAdvantage Salmon, or more specifically the breeding population of live fish, or broodstock, themselves, is a product of our combined intellectual property, which includes our trade secrets related to creating and maintaining the broodstock. Destruction of AquAdvantage Salmon broodstocks by whatever means would result in the loss of the product of that commercial technology. Live animals are subject to disease that may, in some cases, prevent or cause delay in the export of fish or eggs to customers. Disease organisms may be present undetected and transferred inadvertently. In addition, our broodstock is kept at a limited number of facilities, and damage to or failure of critical systems at any one of those facilities could lead to the loss of a substantial percentage of our broodstock. Such events may cause loss of revenue, increased costs, or both. The broodstock, however, could be reinstated, in whole or in part, using our technology and stored breeding reserves.

Atlantic salmon farming is subject to disease outbreaks, which can increase the cost of production and/or reduce production harvests.

Salmon farming systems, particularly conventional, open sea-cage systems, are vulnerable to disease introduction and transmission, primarily from the marine environment or adjacent culture systems. The economic impact of disease to these production systems can be significant, as farmers must incur the cost of preventative measures, such as vaccines and antibiotics, and then, if the fish become infected, the cost of lost or reduced harvests.

Although we will produce and grow our AquAdvantage Salmon in land-based, closed containment facilities, we will still be at risk for potential disease outbreaks. We have implemented biosecurity measures in our facilities intended to prevent or mitigate disease impact, but there can be no assurance that any measures will be 100% effective.

Our ability to compete may be negatively impacted if we do not adequately protect our proprietary technologies or if we lose some of our intellectual property rights.

Our success depends in part on our ability to obtain patents and maintain adequate protection of our intellectual property in the United States and abroad for our technologies and resultant products and potential products. We have adopted a strategy of seeking patent protection in the United States and abroad with respect to certain of the technologies used in or relating to our products; however, the patent to the technology covering AquAdvantage Salmon, which we license under a global, perpetual, royalty-free, non-exclusive license from Genesis Group, Inc., an affiliate of Memorial University of Newfoundland, and an affiliate of the Hospital for Sick Children of Toronto, expired in August 2013. We expect to protect our proprietary technology in regards to AquAdvantage Salmon through a combination of in-house know-how and the deterrence of the regulatory process that would need to be completed for a competing product to be commercialized, which we believe would be cost-prohibitive to our competitors. There can be no guarantee that this strategy will be successful.

We also rely on trade secrets to protect our technologies, particularly in cases when we believe patent protection is not appropriate or obtainable. However, trade secrets are difficult to protect, and we may not be able to adequately protect our trade secrets or other proprietary or licensed information. While we require our employees, academic collaborators, consultants, and other contractors to enter into confidentiality agreements with us, if we cannot maintain the confidentiality of our proprietary and licensed technologies and other confidential information, our ability and that of our licensor to receive patent protection, and our ability to protect valuable information owned or licensed by us may be imperiled.

Enforcing our intellectual property rights may be difficult and unpredictable.

Enforcing our intellectual property rights can be expensive and time consuming, and the outcome of such efforts can be unpredictable. If we were to initiate legal proceedings against a third party to enforce a patent covering one of our technologies, the defendant could counterclaim that our patent is invalid and/or unenforceable or assert that the patent does not cover its manufacturing processes, manufacturing components, or products. Furthermore, in patent litigation in the United States, defendant counterclaims alleging both invalidity and unenforceability are commonplace. Although we may believe that we have conducted our patent prosecution in accordance with the duty of candor and in good faith, the outcome following legal assertions of invalidity and unenforceability during patent litigation is unpredictable. With respect to the validity of our patent rights, we cannot be certain, for example, 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 not be able to exclude others from practicing the inventions claimed therein. Such a loss of patent protection could have a material adverse impact on our business. Even if our patent rights are found to be valid and enforceable, patent claims that survive litigation may not cover commercially valuable products or prevent competitors from importing or marketing products similar to our own, or using manufacturing processes or manufacturing components similar to those used to produce the products using our technologies.

Although we believe that we have obtained assignments of patent rights from all inventors, if an inventor did not adequately assign their patent rights to us, a third party could obtain a license to the patent from such inventor. This could preclude us from enforcing the patent against such third party.

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

The laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the United States. Many companies have encountered significant problems in protecting and defending intellectual property rights in certain foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, often do not favor the enforcement of patents and other intellectual property protection, particularly those relating to genetic engineering. This could make it difficult for us to stop the infringement of our patents or misappropriation of our other intellectual property rights. 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. Accordingly, our efforts to protect our intellectual property rights in such countries may be inadequate.

Security breaches and other disruptions could compromise our information, expose us to fraud or liability, or interrupt our operations, which would cause our business and reputation to suffer.

In the ordinary course of our business, we use our servers and networks to store sensitive data, including our proprietary business and financial information; general business information regarding our customers, suppliers, and business partners; and personally identifiable information of our employees. The secure storage and maintenance of this information is critical to our operations. Despite our security measures, our information technology and infrastructure may be vulnerable to attacks by hackers or breached due to employee error or malfeasance. A breach of our security could compromise our networks, and the information stored there could be accessed, manipulated, publicly disclosed, lost, or stolen. Any such access, manipulation, disclosure, or loss of information could result in errors in our records, fraudulent use of our financial information, legal claims or proceedings, liability under laws that protect the privacy of personal information, theft of our intellectual property, or damage to our reputation. In addition, our systems could be the subject of denial of service or other interference, which could disrupt our operations and commercial transactions. Any of the foregoing could adversely affect our business, revenues, and competitive position.

Competitors and potential competitors may develop products and technologies that make ours obsolete or garner greater market share than ours.

We do not believe that we have a direct competitor for genetically modified, growth-enhanced Atlantic salmon. However, the market for Atlantic salmon is dominated by a group of large, multinational corporations with entrenched distribution channels. Our ability to compete successfully will depend on our ability to demonstrate that AquAdvantage Salmon is superior to and/or less expensive than other products available in the market.

Certain of our competitors may benefit from government support and other incentives that are not available to us. As a result, our competitors may be able to develop competing and/or superior products and compete more aggressively and sustain that competition over a longer period of time than we can. As more companies develop new intellectual property in our markets, a competitor could acquire patent or other rights that may limit our ability to successfully market our product.

If our technologies or products are stolen, misappropriated, or reverse engineered, others could use the technologies to produce competing technologies or products.

Third parties, including our collaborators, contractors, and others involved in our business often have access to our technologies. If our technologies or products were stolen, misappropriated, or reverse engineered, they could be used by other parties that may be able to reproduce our technologies or products using our technologies for their own commercial gain. If this were to occur, it would be difficult for us to challenge this type of use, especially in countries with limited intellectual property protection.

If we lose key personnel, including key management personnel, or are unable to attract and retain additional personnel, it could delay our commercialization plans or harm our research and development efforts, and we may be unable to sell or develop our own products.

Our success depends substantially on the efforts and abilities or our officers and other key employees. The loss of any key members of our management, or the failure to attract or retain other key employees who possess the requisite expertise for the conduct of our business, could prevent us from developing and commercializing our products and executing on our business strategy. We may not be able to attract or retain qualified employees in the future due to the intense competition for qualified personnel among biotechnology and other technology-based businesses, or due to the unavailability of personnel with the particular qualifications or experience necessary for our business. If we are not able to attract and retain the necessary personnel to accomplish our business objectives, we may experience staffing constraints that could adversely affect our ability to meet the demands of our customers in a timely fashion or to support our internal research and development programs. In particular, our product development programs are dependent on our ability to attract and retain highly skilled scientists. Competition for experienced scientists and other technical personnel from numerous companies and academic and other research institutions may limit our ability to attract and retain such personnel on acceptable terms.

We may encounter difficulties managing our growth, which could adversely affect our business.

We could face a period of rapid growth following commercial availability of our products, which may place significant pressure on our management, sales, operational, and financial resources. The execution of our business plan and our future success will depend, in part, on our ability to manage current and planned expansion and on our ability to continue to implement and improve our operational management. Any failure to manage the planned growth may have a significant adverse effect on our business, financial condition, trading performance, and prospects.

We may pursue strategic acquisitions and investments that could have an adverse impact on our business if they are unsuccessful.

If appropriate opportunities become available, we may acquire businesses, assets, technologies, or products to enhance our business in the future. In connection with any future acquisitions, we could:

- issue additional equity securities, which would dilute our current shareholders;
- incur substantial debt to fund the acquisitions; or
- assume significant liabilities.

Acquisitions involve numerous risks, including:

- difficulties integrating the purchased operations, technologies, or products;
- unanticipated costs and other liabilities;
- diversion of management’s attention from our core business;
- adverse effects on existing business relationships with current and/or prospective customers and/or suppliers;
- risks associated with entering markets in which we have no or limited prior experience; and
- potential loss of key employees.

We do not have extensive experience in managing the integration process, and we may not be able to successfully integrate any businesses, assets, products, technologies, or personnel that we might acquire in the future without a significant expenditure of operating, financial, and management resources. The integration process could divert management time from focusing on operating our business, result in a decline in employee morale, or cause retention issues to arise from changes in compensation, reporting relationships, future prospects, or the direction of the business. Acquisitions also may require us to record goodwill and non-amortizable intangible assets that will be subject to impairment testing on a regular basis and potential periodic impairment charges, incur amortization expenses related to certain intangible assets, and incur large and immediate write-offs and restructuring and other related expenses, all of which could harm our operating results and financial condition. In addition, we may acquire companies that have insufficient internal financial controls, which could impair our ability to integrate the acquired company and adversely impact our financial reporting. If we fail in our integration efforts with respect to any of our acquisitions and are unable to efficiently operate as a combined organization, our business and financial condition may be adversely affected.

We have entered into agreements that require us to pay a significant portion of our future revenue to third parties.

In 2009, we received a grant from the Atlantic Canada Opportunities Agency to fund a research program. A total of CDN$2.9 million was made available under the grant, and we received the entire amount through December 31, 2015. Once we begin to generate revenue from any of the products from the research program, we must commence repayment of the outstanding loan in the

form of a 10% royalty. These payments could negatively impact our ability to support our operations. Revenues from sales of our AquAdvantage Salmon are not subject to the royalty.

In February 2013, we entered into the ECC with Intrexon, pursuant to which we are permitted to use Intrexon's UltraVector and other technology platforms to develop and commercialize additional genetically modified traits in finfish for human consumption. The ECC grants us a worldwide license to use certain patents and other intellectual property of Intrexon in connection with the research, development, use, importing, manufacture, sale, and offer for sale of products involving DNA administered to finfish for human consumption. We agreed under the ECC to pay Intrexon, on a quarterly basis, 16.66% of the gross profits calculated for each developed product. We also agreed to pay Intrexon 50% of the quarterly revenue obtained from a sublicensee in the event of a sublicensing arrangement. In addition, we agreed to reimburse Intrexon for the costs of certain services provided by Intrexon. The ECC remains in effect. These payments could negatively impact our ability to support our operations.

Our financial condition or results of operations may be adversely affected by international business risks, including exchange rate fluctuation.

The majority of our employees, including our research personnel, are currently located outside of the United States. As a consequence of the international nature of our business, we are exposed to risks associated with international operations. For example, we are based in the United States and present our financial statements in U.S. dollars, and the majority of our cash resources are held in U.S. dollars or in Canadian dollars. Some of our future expenses and revenues are expected to be denominated in currencies other than in U.S. dollars. Other risks include possible governmental restrictions of the movement of funds, limitation of contractual rights, or expropriation of assets without fair compensation. Therefore, movements in exchange rates to translate to foreign currencies and other international operational risks may have a negative impact on our reported results of operations, financial position, and cash flows.

We have received government research grants and loans in the past, but such grants and loans may not be available in the future.

We have in the past received government assistance in the form of research grants and loans to partially fund various research projects, including projects involving our AquAdvantage Salmon. There can be no assurance that additional government assistance will be available in the future to help offset the cost of our research activities, in which case we would need to fund our research projects entirely from our available cash resources, which may be limited. This could delay progress on future product development and introduction. In addition, we may be subject to audit by the government agencies that provided research assistance to ensure that the funds were used in accordance with the terms of the grant or loan. Any audit of the use of these funds would require the expenditure of funds and result in the diversion of management's attention.

Our success will depend in part on our ongoing relationship with Intrexon.

We are party to agreements with Intrexon, including the ECC. Our success will depend, in part, on the maintenance of our ongoing relationship with Intrexon.

Certain members of management and our Board of Directors may hold stock in both Intrexon and AquaBounty, and as a result may face actual or potential conflicts of interest.

The management and directors of each of Intrexon and AquaBounty may own both Intrexon common stock and AquaBounty common stock. This ownership overlap could create, or appear to create, potential conflicts of interest when AquaBounty management and directors and Intrexon management and directors face decisions that could have different implications for AquaBounty and Intrexon. For example, potential conflicts of interest could arise in connection with the resolution of any dispute between AquaBounty and Intrexon regarding the terms of their relationship. Potential conflicts of interest may also arise out of additional commercial arrangements that AquaBounty or Intrexon may enter into in the future.

Tax reform may significantly affect the Company and its stockholders.

On December 22, 2017, President Trump signed into law the Tax Cuts and Jobs Act (the "Tax Act"), which significantly reforms the Internal Revenue Code of 1986, as amended (the "Code"). The Tax Act, among other things, includes changes to U.S. federal tax rates, imposes significant additional limitations on the deductibility of interest and net operating loss carryforwards, allows for the expensing of capital expenditures, and puts into effect the migration from a "worldwide" system of taxation to a territorial system. We do not expect tax reform to have a material impact to our projection of minimal cash taxes or to our net operating losses. Our net deferred tax assets and liabilities have been revalued at the newly enacted U.S. corporate rate as of December 31, 2017. We continue to examine the impact this tax reform legislation may have on our business. The impact of this tax reform on holders of our common stock is uncertain and could be adverse. This Annual Report on Form 10-K does not discuss any such tax legislation or the manner in which it might affect purchasers of our common stock. We urge our stockholders to consult with their legal and tax advisors with respect to such legislation and the potential tax consequences of investing in our common stock.

Our ability to use net operating losses and other tax attributes to offset future taxable income may be subject to certain limitations.

In general, under Sections 382 and 383 of the Code, a corporation that undergoes an "ownership change" is subject to limitations on its ability to utilize its pre-change net operating losses ("NOLs"), tax credits, or other tax attributes to offset future taxable income or taxes. For these purposes, an ownership change generally occurs where the aggregate stock ownership of one or more stockholders or groups of stockholders who owns at least 5% of a corporation's stock increases its ownership by more than 50 percentage points over its lowest ownership percentage within a specified testing period. In addition to limitations imposed by the Tax Act, a portion of our NOLs are subject to substantial limitations arising from previous ownership changes, and, if we undergo an ownership change, our ability to utilize NOLs could be further limited by Sections 382 and 383 of the Code. In addition, future changes in our stock ownership, many of which are outside of our control, could result in an ownership change under Sections 382 and 383 of the Code. Our NOLs may also be impaired under state law. Accordingly, we may not be able to utilize a material portion of our NOLs. Furthermore, our ability to utilize our NOLs is conditioned upon our attaining profitability and generating U.S. federal and state taxable income.

Risks Relating to our Common Stock

Intrexon's significant share ownership position allows it to influence corporate matters.

Based solely on a Schedule 13D/A filed on January 19, 2018, by Randal J. Kirk, Intrexon, and Third Security, LLC ("Third Security"), Intrexon currently owns 6,700,738 shares of our common stock and has the right to acquire 1,538,461 additional shares upon exercise of warrants purchased by Intrexon on January 17, 2018, which are immediately exercisable. Intrexon therefore currently holds approximately 53% of our outstanding common stock and would own approximately 58% of our common stock upon exercise of the warrants. In addition, entities controlled by Randal J. Kirk, including Third Security and its affiliates other than Intrexon currently hold 837,544 shares of our common stock, or approximately 6% of our shares following exercise of the Intrexon warrants. Based on these holdings, Randal J. Kirk, Intrexon's Chairman, Chief Executive Officer, and controlling shareholder, and Third Security's Chief Executive Officer and Senior Managing Director, has reported control over approximately 64% of our outstanding stock following exercise of the Intrexon warrants. Given this, and our grant to Intrexon of certain rights to nominate members of our Board of Directors that are intended to ensure that Intrexon-nominated Board members represent a percentage of our Board that is proportionate to Intrexon's percentage ownership of our common stock, Intrexon will be able to significantly influence who serves on our Board of Directors and the outcome of matters required to be submitted to our shareholders for approval, including decisions relating to the outcome of any proposed merger or consolidation of our company. Intrexon's interests may not be consistent with those of our other shareholders. Furthermore, Intrexon's significant interest in us may discourage third parties from seeking to acquire control of us, which may adversely affect the market price of our common stock.

An active trading market for our common stock may not develop or be sustained.

Although our common stock is currently traded on the Nasdaq Capital Market, an active trading market for our common stock may never develop or, if developed, be maintained. If an active market for our common stock does not develop or is not maintained, it may be difficult for shareholders to sell shares of our common stock. An inactive trading market may impair our ability to raise capital to continue to fund operations by selling shares and may impair our ability to acquire other companies or technologies by using our shares as consideration.

The price of our shares of common stock is likely to be volatile.

The share price of publicly traded emerging companies can be highly volatile and subject to wide fluctuations. The prices at which our common stock are quoted and the prices which investors may realize will be influenced by a large number of factors, some specific to our company and operations and some that may affect the quoted biotechnology sector, or quoted companies generally. These factors could include variations in our operating results, publicity regarding the process of obtaining regulatory approval to commercialize our products, divergence in financial results from analysts' expectations, changes in earnings estimates by stock market analysts, overall market or sector sentiment, legislative changes in our sector, the performance of our research and development programs, large purchases or sales of our common stock, currency fluctuations, legislative changes in the genetic engineering environment, and general economic conditions. Certain of these events and factors are outside of our control. Stock markets have from time to time experienced severe price and volume fluctuations, which, if recurring, could adversely affect the market prices for our commons stock.

We do not anticipate paying cash dividends in the foreseeable future, and, accordingly, shareholders must rely on stock appreciation for any return on their investment.

We have never declared or paid cash dividends on our common stock. We do not anticipate paying cash dividends in the foreseeable future and intend to retain all of our future earnings, if any, to finance the operations, development, and growth of our business. There can be no assurance that we will have sufficient surplus under Delaware law to be able to pay any dividends at any time in the future. As a result, absent payment of dividends, only appreciation of the price of our common stock, which may never occur, will provide a

return to shareholders. You may also have to sell some or all of your shares of our common stock in order to generate cash flow from your investment in us.

If securities or industry analysts do not publish research or reports, or publish inaccurate or unfavorable research or reports about our business, our share price and trading volume could decline.

The U.S. trading market for our shares of common stock depends, in part, on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. If no securities or industry analysts commence coverage of us, the trading price for our shares of common stock may be negatively impacted. If we obtain securities or industry analyst coverage, and one or more of the analysts who covers us downgrades our shares of common stock, changes their opinion of our shares, or publishes inaccurate or unfavorable research about our business, our share price would likely decline. If one or more of these analysts ceases coverage of us or fails to publish reports on us regularly, demand for our shares of common stock could decrease, and we could lose visibility in the financial markets, which could cause our share price and trading volume to decline.

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

We are an "emerging growth company," as defined in Section 2(a) of the Securities 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 the auditor attestation requirements in the assessment of our internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act, compliance with any new requirements adopted by the PCAOB requiring mandatory audit firm rotation or a supplement to the auditors' report in which the auditor would be required to provide additional information about the audit and the financial statements of the issuer, disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and the requirements of holding advisory "say-on-pay" votes on executive compensation and shareholder advisory votes on golden parachute compensation not previously approved. Under the JOBS Act, we will remain an emerging growth company until the earliest of (1) December 31, 2023, which is the last day of the fiscal year following the fifth anniversary of the date of the first sale of our common stock pursuant to an effective registration statement filed under the Securities Act; (2) the last day of the fiscal year during which we have total annual gross revenues of $1 billion or more; (3) the date on which we have, during the previous three-year period, issued more than $1 billion in non-convertible debt; and (4) the date on which we are deemed to be a "large accelerated filer" as defined in Rule 12b-2 under the Exchange Act. We cannot predict if investors will find our shares of common stock to be less attractive because we may rely on these exemptions. If some investors find our shares of common stock less attractive as a result, there may be a less active trading market for our shares of common stock, and our share price may be more volatile.

Under the JOBS Act, emerging growth companies also can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have irrevocably elected to avail ourselves of this exemption from new or revised accounting standards and, therefore, will not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

Our shareholders may not have the same protections generally available to shareholders of other Nasdaq listed companies because we are currently a "controlled company" within the meaning of the Nasdaq listing rules.

Because Intrexon holds a majority of the voting power for the election of our Board of Directors, we are a "controlled company" within the meaning of Nasdaq Listing Rule 5615(c). As a controlled company, we qualify for exemptions from several of Nasdaq's corporate governance requirements, including requirements that:

- a majority of our Board of Directors consist of independent directors;
- compensation of officers be determined or recommended to our Board of Directors by a majority of its independent directors or by a compensation committee comprised solely of independent directors; and
- director nominees be selected or recommended to our Board of Directors by a majority of its independent directors or by a nominating committee that is composed entirely of independent directors.

While our Board of Directors has determined that a majority of its members are independent, we are not required to have a compensation committee or a nominating committee composed entirely of independent directors. Accordingly, our shareholders may not be afforded the same protections generally as shareholders of other Nasdaq-listed companies for so long as Intrexon controls the composition of our Board of Directors and our Board of Directors determines to rely upon exemptions available to controlled companies.

If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud.

Effective internal controls over financial reporting are necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, are designed to prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation, could cause us to fail to meet our reporting obligations. In addition, any testing by us conducted in connection with Section 404 of the Sarbanes-Oxley Act, or any subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses or that may require prospective or retroactive changes to our financial statements or identify other areas for further attention or improvement. Ineffective internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our common stock.

We may issue preferred stock with terms that could dilute the voting power or reduce the value of our common stock.

While we have no specific plan to issue preferred stock, our certificate of incorporation authorizes us to issue, without the approval of our shareholders, one or more series of preferred stock having such designation, relative powers, preferences (including preferences over our common stock respecting dividends and distributions), voting rights, terms of conversion or redemption, and other relative, participating, optional, or other special rights, if any, of the shares of each such series of preferred stock and any qualifications, limitations, or restrictions thereof, as our Board of Directors may determine. The terms of one or more classes or series of preferred stock could dilute the voting power or reduce the value of our common stock. For example, the repurchase or redemption rights or liquidation preferences we could assign to holders of preferred stock could affect the residual value of the common stock.

The financial reporting obligations of being a public company in the United States are expensive and time consuming and place significant additional demands on our management.

The obligations of being a public company in the United States place additional demands on our management and require significant expenditures, which we estimate will be approximately $400 thousand annually, including costs resulting from public company reporting obligations under the Exchange Act; the rules and regulations regarding corporate governance practices, including those under the Sarbanes-Oxley Act and the Dodd Frank Wall Street Reform and Consumer Protection Act; and the listing requirements for the Nasdaq Capital Market. Our management and other personnel devote a substantial amount of time to ensure that we comply with all of these requirements. Moreover, despite reforms made possible by the JOBS Act, the reporting requirements, rules, and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly, particularly if we were no longer to qualify as an emerging growth company. Any changes that we make to comply with these obligations may not be sufficient to allow us to satisfy our obligations as a public company on a timely basis, or at all.

These rules and regulations make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. These factors also could make it more difficult for us to attract and retain qualified persons to serve on our Board of Directors, particularly to serve on our Audit Committee and Compensation Committee, or as executive officers.

There can be no assurance that we will be able to comply with the continued listing standards of the Nasdaq Capital Market.

Even though our common stock has been listed on the Nasdaq Capital Market, we cannot assure you that we will be able to comply with standards necessary to maintain a listing of our common stock on the Nasdaq Capital Market. Our failure to meet the continuing listing requirements may result in our common stock being delisted from the Nasdaq Capital Market.

Provisions in our corporate documents and Delaware law could have the effect of delaying, deferring, or preventing a change in control of us, even if that change may be considered beneficial by some of our shareholders.

The existence of some provisions of our articles of incorporation or our bylaws or Delaware law could have the effect of delaying, deferring, or preventing a change in control of us that a shareholder may consider favorable. These provisions include:

- providing that the number of members of our board is limited to a range fixed by our bylaws;
- establishing advance notice requirements for nominations of candidates for election to our Board of Directors or for proposing matters that can be acted on by shareholders at shareholder meetings; and
- authorizing the issuance of “blank check” preferred stock, which could be issued by our Board of Directors to issue securities with voting rights and thwart a takeover attempt.

As a Delaware corporation, we are also subject to provisions of Delaware law, including Section 203 of the General Corporation Law of the State of Delaware. Section 203 prevents some shareholders holding more than 15% of our voting stock from engaging in certain business combinations unless the business combination or the transaction that resulted in the shareholder becoming an interested shareholder was approved in advance by our Board of Directors, results in the shareholder holding more than 85% of

our voting stock (subject to certain restrictions), or is approved at an annual or special meeting of shareholders by the holders of at least 66 2/3% of our voting stock not held by the shareholder engaging in the transaction. Any provision of our certificate of incorporation or our bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our shareholders to receive a premium for their shares of our common stock and affect the price that some investors are willing to pay for our common stock.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters are located in Maynard, Massachusetts, and consist of approximately 3,500 square feet of office space under a lease that expires in March 2023. We operate a demonstration farm for AquAdvantage Salmon in Panama under a lease that expires in May 2018. On Prince Edward Island, Canada, we own both a hatchery in Fortune and a salmon farm, consisting of a hatchery, a grow-out facility, and a broodstock facility, in Rollo Bay, and we own a production grow-out facility in Albany, Indiana. We believe that the spaces that we lease and own are sufficient to meet our current and near-term needs. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations-Contractual Obligations.

Item 3. Legal Proceedings

Lawsuit Against the FDA Approval of NADA

On March 30, 2016, a coalition of NGOs filed a complaint against the FDA, the United States Fish and Wildlife Service, and related individuals for their roles in the FDA approval of the NADA for AquAdvantage Salmon. The coalition, including the Centre for Food Safety and Friends of the Earth, claims that the FDA had no statutory authority to regulate genetically modified animals, and, if it did, that the agency failed to analyze and implement measures to mitigate ecological, environmental, and socioeconomic risks that could impact wild salmon and the environment, including the risk that AquAdvantage Salmon could escape and threaten endangered wild salmon stocks. This lawsuit is currently in the discovery phase of litigation.

Other than as set forth above, we are not party to any legal proceedings the outcome of which, we believe, if determined adversely to us, would individually or in the aggregate have a material adverse effect on our future business, consolidated results of operations, cash flows, or financial position. We may, from time to time, be subject to legal proceedings and claims arising from the normal course of business activities.

Item 4. Mine Safety Disclosures

Not applicable.

Part II

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

Market Information

Our common stock is currently traded on the Nasdaq Capital Market under the symbol "AQB." Prior to our listing on the Nasdaq Capital Market, we were listed in 2006 on the Alternative Investment Market ("AIM"), the London Stock Exchange's international market for smaller growing companies, initially under the symbol "ABTX" and, commencing in 2014, under the symbol "ABTU." For the period from January 19, 2017, to May 31, 2017, we were dual-listed on both the Nasdaq Capital Market and AIM. Effective June 1, 2017, we voluntarily delisted our common stock from AIM. As of March 2, 2018, 12,598,552 shares of our common stock were issued and outstanding.

As of March 2, 2018, there were approximately 349 holders of record of our common stock. The transfer agent for our common stock is Computershare Trust Company, N.A.

The following table sets forth the high and low closing sale prices for our common stock for the periods indicated, as reported by AIM, the only exchange on which our common stock was listed in 2016. These prices are as reported by the London Stock Exchange plc. Amounts presented in U.S. dollars reflect the currency exchange rate in effect on the date the price was reported on AIM.

	Price Per Share of Common			
Quarterly Period	**Low**		**High**	
2016				
Quarter ended March 31, 2016	£ 6.60	$ 9.51	£ 8.25	$ 11.85
Quarter ended June 30, 2016	£ 4.05	$ 5.87	£ 11.85	$ 17.26
Quarter ended September 30, 2016	£ 7.35	$ 9.67	£ 10.95	$ 14.18
Quarter ended December 31, 2016	£ 7.20	$ 8.81	£ 9.15	$ 11.79
2017				
Quarter ended March 31, 2017	£ 4.28	$ 5.20	£ 21.79	$ 26.49
Period to May 31, 2017	£ 6.01	$ 7.77	£ 9.05	$ 11.33

The following table sets forth the high and low sale prices for our common stock for the periods indicated, as reported on the Nasdaq Capital Market.

	Price Per Share of Common	
Quarterly Period	**Low**	**High**
2017		
Quarter ended March 31, 2017	$ 5.20	$ 26.49
Quarter ended June 30, 2017	$ 6.90	$ 11.33
Quarter ended September 30, 2017	$ 6.50	$ 8.02
Quarter ended December 31, 2017	$ 3.12	$ 7.35
2018		
Period to March 2, 2018	$ 2.37	$ 8.89

Dividends

We have never declared or paid any cash dividends on our common stock. We currently intend to retain earnings, if any, to finance the growth and development of our business. We do not expect to pay any cash dividends on our common stock in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our Board of Directors and will depend on our financial condition, results of operations, capital requirements, restrictions contained in current or future financing instruments, provisions of applicable law, and other factors the Board of Directors deems relevant.

Securities Authorized for Issuance Under Equity Compensation Plans

The information under “Equity Compensation Plan Information” to be included in our definitive proxy statement relating to our 2018 annual meeting of stockholders to be filed with the SEC within 120 days after the end of our fiscal year ended December 31, 2017, is incorporated herein by reference.

Recent Sales of Unregistered Securities

The following sets forth information regarding all unregistered securities sold since January 1, 2016:

- On December 16, 2016, we issued 1,212,908 shares of our common stock upon conversion of the Debt Facility.
- On January 18, 2017, we issued 2,421,073 shares of our common stock to Intrexon at a per-share price of $10.326 for aggregate consideration of approximately $25 million. The net proceeds are to be used for general corporate purposes.

Each of the sales of our common stock referenced above was exempt from the registration requirements of the Securities Act pursuant to the exemptions provided by Section 4(a)(2) of the Securities Act and/or Regulation D under the Securities Act. We did not pay or give, directly or indirectly, any commission or other remuneration, including underwriting discounts or commissions, in connection with any of the sales of our common stock referenced above. The recipients of the shares of our common stock in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed upon the stock certificates issued in these transactions. All recipients represented that they had adequate access to information about us. Each of the sales was made without any general solicitation or advertising.

Item 6. Selected Financial Data

The following table sets forth our selected consolidated financial data for the periods and as of the dates indicated. You should read the following selected consolidated financial data in conjunction with our audited consolidated financial statements and the related notes thereto included elsewhere in this Annual Report on Form 10-K and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

The consolidated statement of operations data for the years ended December 31, 2017, 2016, and 2015, and the consolidated balance sheet data as of December 31, 2017 and 2016, are derived from our audited consolidated financial statements. Our audited consolidated financial statements have been prepared in U.S. dollars in accordance with United States generally accepted accounting principles, or U.S. GAAP.

Our historical results for any prior period are not necessarily indicative of results to be expected in any future period.

	Fiscal Years Ended December 31,		
	2017	2016	2015
(in thousands, except share data)			
Statement of Operations Data:			
Revenues:			
Product revenues	$ 53	$ —	$ —
Costs and expenses:			
Product Costs	51	—	—
Sales and marketing	799	860	994
Research and development	3,372	3,430	3,338
General and administrative	5,063	3,775	2,697
Total costs and expenses	9,285	8,065	7,029
Operating loss	(9,232)	(8,065)	(7,029)
Other income (expense):			
Interest and other income (expense), net	(27)	(406)	(3)
Total other income (expense)	(27)	(406)	(3)
Net loss	$ (9,259)	$ (8,471)	$ (7,032)
Other comprehensive income:			
Foreign currency translation gain (loss)	72	(60)	229
Total other comprehensive income (loss)	72	(60)	229
Comprehensive loss	$ (9,187)	$ (8,531)	$ (6,803)
Basic and diluted net loss per share (1)	$ (1.06)	$ (1.60)	$ (1.40)
Weighted average number of common shares—basic and diluted (1)	8,772,494	5,303,114	5,037,368

(1) The basic and diluted net loss per share and weighted average number of common shares used in the net loss per share calculation have been adjusted to reflect the 1-for-30 reverse stock split effected January 2017.

	As of December 31,	
	2017	2016
Balance Sheet Data:		
Cash and CD's	$ 506	$ 3,335
Total assets	$ 23,732	$ 5,709
Debt	$ 3,084	$ 2,663
Stockholders' equity	$ 17,981	$ 2,028

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes that appear elsewhere in this Annual Report on Form 10-K. In addition to historical consolidated financial information, the following discussion contains forward-looking statements that reflect our plans, estimates, and beliefs. Our actual results could differ materially from those discussed in the forward-looking statements. Factors that could cause or

contribute to these differences include those discussed below and elsewhere in this Annual Report on Form 10-K, particularly in “Risk Factors.”

Overview

We believe that we are a leader in the field of biotechnology tools for improving the productivity of aquaculture. Our product is the AquAdvantage Salmon, which received FDA approval in 2015 as the first genetically modified animal available for sale for human consumption. We intend to commence commercial activities with operations in markets where we have received regulatory approval. The first steps in our commercial plan have been implemented, including the following:

- we received approval from the provincial regulatory authorities in Prince Edward Island for the construction of a broodstock facility to house our non-transgenic Atlantic salmon stock and a 250-metric-ton recirculating aquaculture system (“RAS”) facility to grow out our AquAdvantage Salmon;
- we made our first sales of AquAdvantage Salmon from our farm site in Panama in June 2017;
- we purchased certain assets of the aquaculture facility of Bell Fish Company LLC, which we intend to use to grow out our AquAdvantage Salmon for sale and consumption in the United States; and
- we are also continuing an active search in both the United States and Canada for either an existing land-based RAS facility or a site on which to build a new facility for the commercial production of AquAdvantage Salmon.

Financial Overview

We have incurred significant losses since our inception. We expect to continue to incur significant losses for the foreseeable future, and we may never achieve or maintain profitability. We generate product revenue through the sales of our AquAdvantage Salmon. During June 2017, the Company completed its first sales of AquAdvantage Salmon. We have had no revenues from any other product since 2008.

We expect our future capital requirements will be substantial, particularly as we continue to develop our business and expand our commercial activities. As discussed in “-Liquidity and Capital Resources,” in February 2016, we executed a convertible debt facility providing for borrowings of up to $10 million with Intrexon, our majority shareholder. On December 16, 2016, the entire $10 million (plus accrued interest) of convertible debt was converted into 1,212,908 shares of our common stock.

In January 2017, we sold 2,421,073 shares of our common stock to Intrexon for proceeds of approximately $25 million. In January 2018, we completed a public offering of 3,692,307 shares of our common stock and 4,246,153 warrants for net proceeds of approximately $10.6 million.

During the next several years, we expect that our annual spending on operations will increase. We expect that our research and development costs will increase as we expand the scope of our current projects and add new development projects under the ECC with Intrexon. We expect that our general and administrative expenses and capital expenditures will increase due to the operation of our new production facilities in Indiana and Rollo Bay and the anticipated growth of our company. We expect that our sales and marketing expenses will increase with the commencement of commercial activities for our AquAdvantage Salmon. We may also decide to construct or purchase additional production facilities to grow-out AquAdvantage Salmon. These activities would require substantial new investment to fund the cost of purchase or construction of land-based farming facilities. However, the uncertainty of the timing of the commencement of operations at our production facilities in Indiana and Rollo Bay for AquAdvantage Salmon makes it difficult to forecast these expenses or create a definitive operational plan beyond the short term. Upon completion of the first harvests at our production facilities in Indiana and Rollo Bay, we expect to finalize our operational plan and move forward with further expansion, which will require us to raise additional funds.

Revenue

We generate product revenue through the sales of our AquAdvantage Salmon. Revenue is recognized when we identify the performance obligation in the contract, determine the transaction price, allocate the transaction price to the performance obligations, and recognize revenue upon completion of the performance obligation. Sales orders contain a single deliverable, AquAdvantage Salmon, and revenue is recognized upon delivery. During June 2017, we completed our first sales of AquAdvantage Salmon.

In the future, our revenue will depend upon the number of countries in which we have received regulatory approval for the sale of our products, the number and capacity of grow-out facilities we have in operation, and the market acceptance we achieve.

Cost of Products

Cost of products includes the labor and related costs to grow out our fish, including feed, oxygen, and other direct costs; an application of overhead; and the cost to process and ship our fish to customers.

Sales and Marketing Expenses

Our sales and marketing expenses currently include personnel costs, travel, and consulting fees for market-related activities. As of December 31, 2017, we had three employees dedicated to sales and marketing.

Research and Development Expenses

As of December 31, 2017, we employed nineteen scientists and technicians at our facilities on Prince Edward Island to oversee our broodstock of AquAdvantage Salmon, as well as the lines of fish we maintain for research and development purposes. Beginning in 2012, we outsourced our research activities at the hatchery to Tethys Aquaculture Canada, Inc. (doing business as the Center for Aquaculture Technologies Canada) ("Tethys"), our former research group. During 2015, we made the decision to reinstitute our in-house research group, and we have hired personnel to reestablish that function internally. This has allowed us to phase-out and end our contract research agreement with Tethys. In addition, under the ECC, we have an agreement with Intrexon to conduct research on and develop new finfish products using their technology platform. We recognize research and development expenses as they are incurred. Our research and development expenses consist primarily of:

- salaries and related overhead expenses for personnel in research and development functions;
- fees paid to contract research organizations, Intrexon, and consultants who perform research for us;
- costs related to laboratory supplies used in our research and development efforts;
- costs related to the operation of our field trials; and
- costs related to the grow-out of fish at the Panama site that are not capitalized in inventory.

From time to time we receive government funding or assistance in support of certain research projects. Any funds received are credited against costs incurred for the specific program.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and related costs for employees in executive, corporate, and finance functions. Other significant general and administrative expenses include corporate governance and public market maintenance, regulatory compliance, rent and utilities, insurance, and legal services, along with the maintenance and repair costs for our Indiana facility. We had fifteen employees in our general and administrative group at December 31, 2017.

Other Income (Expense), Net

Interest income consists of interest earned on our cash and short-term investments. Interest expense includes the interest on our outstanding loans. Other income (expense) includes bank charges, fees, and interest income.

Critical Accounting Policies and Estimates

This Management's Discussion and Analysis of our Financial Condition and Results of Operations is based on our consolidated financial statements, which we have prepared in accordance with U.S. GAAP. The preparation of our consolidated 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 revenues and expenses during the reporting periods. We evaluate these estimates and judgments on an ongoing basis. We base our estimates on 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. Our actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are more fully described in Note 2 to our audited consolidated financial statements appearing elsewhere in this Annual Report on Form 10-K, we believe that the following accounting policies and estimates are the most critical for fully understanding and evaluating our financial condition and results of operations.

Valuation Allowance for Net Deferred Tax Assets

We record a valuation allowance to offset any net deferred tax assets if, based upon the available evidence, it is more likely than not that we will not recognize some or all of the deferred tax assets. We have had a history of net losses since inception, and, as a result, we have established a 100% valuation allowance for our net deferred tax assets. If circumstances change, and we determine that we will be able to realize some or all of these net deferred tax assets in the future, we will record an adjustment to the valuation allowance. Additionally, enacted changes in domestic or foreign tax rates, such as those enacted as part of the Tax Act, that require remeasurement of our deferred tax assets and liabilities, also require remeasurement of our valuation allowance.

Revenue Recognition

The Company has adopted Accounting Standards Update ("ASU") 2014-09, "Revenue from Contracts with Customers," which supersedes the revenue recognition requirements in Accounting Standards Codification ("ASC") 605, "Revenue Recognition," and

most industry-specific guidance throughout the ASC. ASU 2014-09 established principles for recognizing revenue upon the transfer of promised goods or services to customers, in an amount that reflects the expected consideration received in exchange for those goods or services. In applying ASU 2014-09, the Company identifies the performance obligation in the contract, determines the transaction price, allocates the transaction price to the performance obligations, and recognizes revenue upon completion of the performance obligation. During the quarter ended June 30, 2017, the Company completed its first sales of AquAdvantage Salmon. Sales orders contain a single deliverable, AquAdvantage Salmon, and revenue is recognized upon delivery.

Business Combinations

The Company has adopted ASU 2017-01, "Business Combinations: Clarifying the Definition of a Business." The revised guidance changes the definition of a business to assist entities with evaluating whether a set of transferred assets and activities is a business. During the quarter ended June 30, 2017, the Company acquired certain assets of Bell Fish Company LLC in Albany, Indiana, for $14.2 million, including legal and other expenses incurred. Management concluded, based on its analysis of the assets acquired, that the facility and related assets would provide one input into the Company's process for growing its product, and, accordingly, the acquisition was accounted for as an asset purchase.

Results of Operations

Comparison of the year ended December 31, 2017, to the year ended December 31, 2016.

The following table summarizes our results of operations for the years ended December 31, 2017 and 2016, together with the changes in those items in dollars and as a percentage (in thousands):

	Year Ended December 31,		Dollar Change	% Change
	2017	2016		
Product revenue	$ 53	$ —	$ 53	— %
Operating expenses:				
Product costs	51	—	51	0 %
Sales and marketing	799	860	(61)	(7)%
Research and development	3,372	3,430	(58)	(2)%
General and administrative	5,063	3,775	1,288	34 %
Operating loss	(9,232)	(8,065)	(1,167)	14 %
Total other (income) expense, net	(27)	(406)	379	(93)%
Net loss	$ (9,259)	$ (8,471)	$ (788)	9 %

Product Revenue and Product Costs

The first sales of AquAdvantage Salmon were recognized during the year ended December 31, 2017. Regulatory approval for the harvest and export of our fish from our Panama farm site was received during the year, and a batch of fish was sold and shipped to customers in Canada.

Product Costs on sales was $51 thousand and consisted of the labor and related overhead to grow out our fish, an application of overhead, and processing and shipping costs. We expect that sales of our fish will be infrequent and of small quantities until our Indiana and Rollo Bay facilities are operational and the fish in those facilities have matured, which is expected in the second half of 2019.

Sales and Marketing Expenses

Sales and marketing expenses for the year ended December 31, 2017, were down from the corresponding period in 2016 due to lower travel and outside service costs related to the design fees for a land-based recirculating aquaculture facility. We expect that our sales and marketing expenses will increase as we move forward with our commercial plans.

Research and Development Expenses

Research and development expenses for the year ended December 31, 2017, were down from the corresponding period in 2016 due to a reduction in outside contract research expenses and an allocation of cost to inventory, which were partly offset by an increase in compensation. We expect that our research and development expenses will increase as we further develop our new site at Rollo Bay and as we continue to pursue regulatory approval for additional products.

General and Administrative Expenses

General and administrative expenses for the year ended December 31, 2017, were significantly higher than the corresponding period in 2016 due to increased compensation charges and higher professional fees, corporate taxes, and the costs of maintenance and repair of the Indiana site, which were partially offset by a reduction in stock compensation charges and legal fees.

Total Other (Income) Expense

Total other (income) expense for 2017 is comprised of interest on debt, bank charges, interest income, and gains on asset disposals. Total other (income) expense for 2016 is comprised of interest on the convertible debt with Intrexon, bank charges, interest income, and gains on asset disposals.

Comparison of the year ended December 31, 2016, to the year ended December 31, 2015.

The following table summarizes our results of operations for the years ended December 31, 2016 and 2015, together with the changes in those items in dollars and as a percentage (in thousands):

	Years Ended December 31,		Dollar Change	% Change
	2016	2015		
Operating expenses:				
Sales and marketing	$ 860	$ 994	$ (134)	(13)%
Research and development	3,430	3,338	92	3 %
General and administrative	3,775	2,697	1,078	40 %
Operating loss	(8,065)	(7,029)	(1,036)	15 %
Total other (income) expense, net	(406)	(3)	(403)	13,433 %
Net loss	$ (8,471)	$ (7,032)	$ (1,439)	20 %

Sales and Marketing Expenses

The decrease in sales and marketing expenses for the year ended December 31, 2016, was due to a decrease in outside services related to design fees for a land-based recirculating aquaculture facility, which were completed in February 2016. This was partially offset by an increase in headcount and travel costs.

Research and Development Expenses

The increase in research and development expenses for the year ended December 31, 2016, was due to the shift of spending from the use of outside contract work to inside personnel, along with the commencement of field trials in Argentina and Brazil.

General and Administrative Expenses

The increase in general and administrative expenses for the year ended December 31, 2016, was due to the addition of headcount, increased legal fees from third-party challenges to our two regulatory approvals, and legal fees for the filing of the registration statement for our common shares with the Securities and Exchange Commission.

Total Other (Income) Expense

Total other (income) expense is comprised of interest on debts, gains on asset disposals, and bank charges for the years ended December 31, 2016 and 2015.

Liquidity and Capital Resources

Sources of Liquidity

We have incurred losses from operations since our inception in 1991, and, as of December 31, 2017, we had an accumulated deficit of $108.5 million. On February 22, 2016, we entered into a convertible debt facility with Intrexon (the “Debt Facility”). Advances under the Debt Facility carried an interest rate of 10% per year and had a maturity date of March 1, 2017. The entire $10 million (plus accrued interest) under the Debt Facility was converted into 1,212,908 shares of our common stock on December 16, 2016. On January 18, 2017, we completed a private placement of 2,421,073 shares of our common stock to Intrexon for proceeds of approximately $25 million. As of December 31, 2017, we had a cash balance of $0.5 million.

On January 17, 2018, we completed a public offering of 3,692,307 shares of our common stock and 4,246,153 warrants for net proceeds of approximately $10.6 million. Intrexon participated in this offering, purchasing 1,538,461 shares of our common stock and warrants for $5 million.

Cash Flows

The following table sets forth the significant sources and uses of cash for the periods set forth below (in thousands):

	Years Ended December 31,		
	2017	2016	2015
Net cash provided by (used in):			
Operating activities	$ (9,101)	$ (7,449)	$ (6,748)
Investing activities	(19,046)	(1,074)	(105)
Financing activities	25,238	10,541	3,044
Effect of exchange rate changes on cash	77	(7)	(41)
Net increase (decrease) in cash	$ (2,832)	$ 2,011	$ (3,850)

Cash Flows from Operating Activities

Net cash used in operating activities during the year ended December 31, 2017, was primarily comprised of our $9.3 million net loss, offset by non-cash depreciation and stock compensation charges of $307 thousand, and increased by working capital uses of $148 thousand. Spending on operations increased in 2017 due to headcount additions and renovation costs at our Indiana site, offset by a reduction in legal fees. The use of cash in working capital in 2017 was due to the establishment of inventory in Panama and Canada, deposits for insurance and utilities in Indiana, and costs of our public offering.

Net cash used in operating activities during the year ended December 31, 2016, was primarily comprised of our $8.5 million net loss, offset by non-cash depreciation and stock compensation charges and accrued interest of $765 thousand, and working capital sources of $257 thousand. Spending on operations increased during 2016 due to headcount additions, increased legal fees, the commencement of two international field trials, and the purchase of a new farm site. The increase in cash sourced by working capital in 2016 was due to an increase in accrued expenses, offset by an increase in government receivables.

Net cash used in operating activities during the year ended December 31, 2015, was primarily comprised of our $7.0 million net loss, offset by non-cash depreciation and stock compensation charges of $344 thousand, and working capital reductions of $59 thousand. Spending on operations was slightly down during 2015. We increased spending on research and pre-commercial activities and added headcount, but we reduced legal fees and benefited from favorable foreign exchange rates. Cash used for working capital went to an increase in prepaid expenses and outstanding receivables, along with a reduction in accounts payable and accrued liabilities.

Cash Flows from Investing Activities

During 2017, we used $19.0 million for property and equipment purchases, including $14.7 million for the purchase and initial renovation work of our Indiana site and $4.2 million for construction activities at our Rollo Bay site.

During 2016, we used $1.1 million for property and equipment purchases, primarily for the purchase of the Rollo Bay farm site, and $6 thousand for patent charges. This was offset by $24 thousand in proceeds from the sale of existing assets. During fiscal 2015, we used $74 thousand for equipment purchases and incurred $31 thousand for patent charges.

Cash Flows from Financing Activities

During 2017, we received $25.0 million in proceeds from the issuance of our common stock in a private placement of shares, $28 thousand from the exercise of stock options, and $221 thousand from the issuance of debt, net of repayments.

During 2016, we received $10.0 million in proceeds from the issuance of convertible debt, which was converted into common stock, and $541 thousand in proceeds from the issuance of term debt, net of repayments. In 2015, we received $3.0 million of net proceeds from the issuance of our common stock in a private placement of shares and $44 thousand from the issuance of term debt.

Future Capital Requirements

We have evaluated our cash resources in view of our planned spending for ongoing operations, capital expenditures, and working capital for the next twelve months and have determined that our current funds, which include $10.6 million of net proceeds from our public offering of shares in January 2018, are sufficient for our needs. We intend to devote a significant portion of our existing cash to our farm sites in Indiana and Rollo Bay and the continued investment in our research and development projects. We plan to seek additional financing in the form of debt or equity to fund our commercial plan.

We have based our estimates on assumptions that may prove to be wrong, and we may use our available capital resources sooner than we currently expect. Our future capital requirements will depend on many factors, including:

- the timing of additional regulatory approvals and permits for AquAdvantage Salmon, if any;
- the cost to complete construction activities at our Rollo Bay site;
- the cost to upgrade the equipment at our Indiana site; and

- the timing of costs related to the FDA legal challenge.

Until such time, if ever, as we can generate positive operating cash flows, we may finance our cash needs through a combination of equity offerings, debt financings, government or other third-party funding, strategic alliances, and licensing arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interests of holders of our common stock will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of holders of our common stock. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures, or declaring dividends. If we raise additional funds through government or other third-party funding; marketing and distribution arrangements; or other collaborations, strategic alliances, or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs, or product candidates or to grant licenses on terms that may not be favorable to us.

Management believes that the Company can continue as a going concern. Management's assessment is based on the Company's successful public offering of shares in January 2018 and its belief that it will be able to raise additional equity or debt to fund its future requirements. Additionally, management could reduce spending including the slow down, delaying or halting of construction in process at our farm sites, to conserve the Company's cash if there is a delay in obtaining new funding. Therefore, the accompanying financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. However, if we are unable to generate additional funds in the future through financings, sales of our products, government grants, loans, or from other sources or transactions, we will exhaust our resources and will be unable to maintain our currently planned operations. If we cannot continue as a going concern, our stockholders would likely lose most or all of their investment in us.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements as defined under SEC rules.

Contractual Obligations

The following table summarizes our significant contractual obligations and commercial commitments at December 31, 2017, and the effects such obligations are expected to have on our liquidity and cash flows in future periods (in thousands):

	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
PEI Finance loan	$ 545	$ 20	$ 42	$ 483	$ —
ACOA Loan	251	30	60	60	101
AIF grant (1)	2,288	—	—	—	2,288
Maynard office lease	333	54	128	134	17
Panama site lease	60	60	—	—	—
Total	$ 3,477	$ 164	$ 230	$ 677	$ 2,406

(1) repayment of the AIF grant is royalty-based and estimated on revenue projections of products resulting from the project

In addition to the obligations in the table above, as of December 31, 2017, we also have the following significant contractual obligations described below:

- In February 2013, we entered into the ECC with Intrexon, pursuant to which we are permitted to use Intrexon's UltraVector and other technology platforms to develop and commercialize additional genetically modified traits in finfish for human consumption. We agreed under the ECC to pay Intrexon, on a quarterly basis, 16.66% of the gross profits calculated for each developed product. We also agreed to pay Intrexon 50% of the quarterly revenue obtained from a sublicensor in the event of a sublicensing arrangement. In addition, we agreed to reimburse Intrexon for the costs of certain services provided by Intrexon. Amounts required to be paid to Intrexon under the ECC are not included in the table above due to the uncertainty of the timing of payments.

Recent Accounting Pronouncements

The following is a brief description of recent accounting pronouncements not yet adopted that could have a material effect on our financial statements:

In February 2016, the FASB issued ASU 2016-02, "Leases," which requires a lessee to recognize lease liabilities for the lessee's obligation to make lease payments arising from a lease, measured on a discounted basis, and right-of-use assets, representing the lessee's right to use, or control the use of, specified assets for the lease term. Additionally, the new guidance has simplified

accounting for sale and leaseback transactions. Lessor accounting is largely unchanged. The ASU is effective for fiscal years beginning after December 15, 2018. We are currently evaluating the impact of adopting the ASU on our financial statements.

We do not expect any other recently issued, but not yet effective, accounting standards to have a material effect on our results of operations or financial condition.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

The following sections provide quantitative information on our exposure to interest rate risk and foreign currency exchange risk. We make use of sensitivity analyses, which are inherently limited in estimating actual losses in fair value that can occur from changes in market conditions.

Interest Rate Risk

Our primary exposure to market risk is interest rate risk associated with debt financing that we utilize from time to time to fund operations or specific projects. The interest on this debt is usually determined based on a fixed rate and is contractually set in advance. At December 31, 2017, and December 31, 2016, we had $545 thousand and $527 thousand, respectively, in interest-bearing debt instruments on our consolidated balance sheet. All of our interest-bearing debt is at fixed rates.

Foreign Currency Exchange Risk

Our functional currency is the U.S. Dollar. The functional currency of our Canadian subsidiary is the Canadian Dollar, and the functional currency of our Panama, U.S., and Brazil subsidiaries is the U.S. Dollar. For the Canadian subsidiary, assets and liabilities are translated at the exchange rates in effect at the balance sheet date, equity accounts are translated at the historical exchange rate, and the income statement accounts are translated at the average rate for each period during the year. Net translation gains or losses are adjusted directly to a separate component of other comprehensive loss within shareholders' equity (deficit).

Item 8. Financial Statements and Supplementary Data

The financial statements required by this Item are located beginning on page F-1 of this Annual Report.

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

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Securities and Exchange Act of 1934 is (1) recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and (2) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure. As of December 31, 2017 (the "Evaluation Date"), our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities and Exchange Act of 1934). Our 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. Our Chief Executive Officer and Chief Financial Officer have concluded based upon the evaluation described above that, as of the Evaluation Date, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting for our company. Internal control over financial reporting is defined in Rules 13a-15(f) and 15(d)-15(f) promulgated under the Securities Exchange Act of 1934, as amended, as a process designed by, or under the supervision of, our Chief Executive and Chief Financial Officers and effected by our board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that:

- pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and disposition of our assets;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles;

- provide reasonable assurance that our receipts and expenditures are being made only in accordance with authorization of our management and directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on the financial statements.

Because of inherent limitations, internal controls over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risks that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

Our management, including our Chief Executive Officer and Chief Financial Officer, has conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2017. In conducting this evaluation, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control-Integrated Framework (2013).

Based upon this evaluation and those criteria, management believes that, as of December 31, 2017, our internal controls over financial reporting were effective.

This Annual Report on Form 10-K does not include an attestation report of the Company's independent registered accounting firm as we are an emerging growth company, as defined under the JOBS Act, and are subject to reduced public company reporting requirements. The JOBS Act provides that an emerging growth company is not required to have the effectiveness of the Company's internal control over financial reporting audited by its external auditors for as long as the Company is deemed to be an emerging growth company.

Changes in Internal Control

There have been no changes in our internal control over financial reporting for the three months ended December 31, 2017, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

Part III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this Item is set forth in our 2018 Proxy Statement to be filed with the SEC within 120 days of December 31, 2017, and is incorporated by reference into this Annual Report on Form 10-K by reference.

Item 11. Executive Compensation

We are an emerging growth company, as defined under the JOBS Act, and are therefore not required to provide certain disclosures regarding executive compensation required of larger public companies or hold a nonbinding advisory vote on executive compensation or obtain stockholder approval of any golden parachute payments not previously approved.

The information required by this Item is set forth in our 2018 Proxy Statement to be filed with the SEC within 120 days of December 31, 2017, and is incorporated by reference into this Annual Report on Form 10-K by reference.

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

The information required by this Item is set forth in our 2018 Proxy Statement to be filed with the SEC within 120 days of December 31, 2017, and is incorporated by reference into this Annual Report on Form 10-K by reference.

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

The information required by this Item is set forth in our 2018 Proxy Statement to be filed with the SEC within 120 days of December 31, 2017, and is incorporated by reference into this Annual Report on Form 10-K by reference.

Item 14. Principal Accounting Fees and Services

The information required by this Item is set forth in our 2018 Proxy Statement to be filed with the SEC within 120 days of December 31, 2017, and is incorporated by reference into this Annual Report on Form 10-K by reference.

Part IV

Item 15. Exhibits and Financial Statement Schedules

List of Documents Filed as Part of this Report

1. Consolidated Financial Statements

The following consolidated financial statements are filed herewith in accordance with Item 8 of Part II above:

(i) Report of Independent Registered Public Accounting Firm

(ii) Consolidated Balance Sheets

(iii) Consolidated Statements of Operations and Comprehensive Loss

(iv) Consolidated Statements of Changes in Stockholders' Equity (Deficit)

(v) Consolidated Statements of Cash Flows

(vi) Notes to Consolidated Financial Statements

2. Schedules

Schedules not listed are omitted because the required information is inapplicable or is presented in the consolidated financial statements.

3. Exhibits

Exhibit Number	Exhibit Description
3.1*	Third Amended and Restated Certificate of Incorporation of AquaBounty Technologies, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
3.2*	Certificate of Amendment of Third Amended and Restated Bylaws of AquaBounty Technologies, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed on January 6, 2017).
3.3*	Amended and Restated Bylaws of AquaBounty Technologies, Inc. (incorporated by reference to Exhibit 3.2 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
4.1*	Specimen Certificate of Common Stock (incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
4.2*	Specimen Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.2 to the Registrant's Registration Statement on Form S-1, filed on January 9, 2018).
10.1*	Stock Purchase Agreement, by and between AquaBounty Technologies, Inc. and Intrexon Corporation, dated November 7, 2016 (incorporated by reference to Exhibit 10.1 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.2*†	AquaBounty Technologies, Inc. 2006 Equity Incentive Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.3*†	Amendment No. 1 to AquaBounty Technologies, Inc. 2006 Equity Incentive Plan (incorporated by reference to Exhibit 10.3 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.4*†	Form of Stock Option Agreement pursuant to AquaBounty Technologies, Inc. 2006 Equity Incentive Plan (incorporated by reference to Exhibit 10.4 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.5*†	Form of Restricted Stock Agreement pursuant to AquaBounty Technologies, Inc. 2006 Equity Incentive Plan (incorporated by reference to Exhibit 10.5 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.6*†	AquaBounty Technologies, Inc. 2016 Equity Incentive Plan (incorporated by reference to Exhibit 10.6 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.7*†	Form of Stock Option Agreement pursuant to AquaBounty Technologies, Inc. 2016 Equity Incentive Plan (incorporated by reference to Exhibit 10.22 to the Registrant's Registration Statement on Form 10, filed on December 12, 2016).
10.8*†	Form of Restricted Stock Agreement pursuant to AquaBounty Technologies, Inc. 2016 Equity Incentive Plan (incorporated by reference to Exhibit 10.21 to the Registrant's Registration Statement on Form 10, filed on December 12, 2016).
10.9*	Relationship Agreement, by and between AquaBounty Technologies, Inc. and Intrexon Corporation, dated December 5, 2012 (incorporated by reference to Exhibit 10.7 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).

Exhibit Number	Exhibit Description
10.10*	Exclusive Channel Collaboration Agreement, by and between AquaBounty Technologies, Inc. and Intrexon Corporation, dated February 14, 2013 (incorporated by reference to Exhibit 10.8 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.11*	Subscription Agreement, by and between AquaBounty Technologies, Inc. and the investors listed therein, dated February 14, 2013 (incorporated by reference to Exhibit 10.9 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.12*	Subscription Agreement, by and between AquaBounty Technologies, Inc. and Intrexon Corporation, dated March 5, 2014 (incorporated by reference to Exhibit 10.10 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.13*	Subscription Agreement, by and between AquaBounty Technologies, Inc. and Intrexon Corporation, dated June 24, 2015 (incorporated by reference to Exhibit 10.11 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.14*	Promissory Note Purchase Agreement, by and between AquaBounty Technologies, Inc. and Intrexon Corporation, dated February 22, 2016 (incorporated by reference to Exhibit 10.12 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.15*	Lease and Management Agreement, by and between AquaBounty Panama, S. de R.L. and Luis Lamastus, dated October 1, 2013 (incorporated by reference to Exhibit 10.13 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.16*	Agreement, by and among Atlantic Canada Opportunities Agency and AQUA Bounty Canada Inc. and AquaBounty Technologies Inc., dated December 16, 2009 (incorporated by reference to Exhibit 10.14 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.17*†	Employment Agreement, by and between Ronald Stotish and AquaBounty Technologies, Inc., dated April 1, 2006 (incorporated by reference to Exhibit 10.15 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.18*†	Employment Agreement, by and between David Frank and AquaBounty Technologies, Inc., dated October 1, 2007 (incorporated by reference to Exhibit 10.16 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.19*†	Employment Agreement, by and between Alejandro Rojas and AquaBounty Technologies, Inc., dated December 30, 2013 (incorporated by reference to Exhibit 10.17 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.20*	Collaborative Research Agreement, by and between AQUA Bounty Canada Inc. and Tethys Aquaculture Canada, Inc., dated March 22, 2012 (incorporated by reference to Exhibit 10.18 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.21*	Intellectual Property License and Full and Final Release among Genesis Group, Inc., HSC Research and Development Partnership and AquaBounty Technologies, Inc., dated February 28, 2014 (incorporated by reference to Exhibit 10.19 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.22*	Amended and Restated Lease Agreement, by and between AquaBounty Panama, S. de R.L. and Ligia Gabriela Surgeon de Lamastus, dated May 1, 2016 (incorporated by reference to Exhibit 10.20 to the Registrant's Registration Statement on Form 10, filed on November 7, 2016).
10.23*	Asset Purchase Agreement by and between AquaBounty Technologies, Inc. and Bell Fish Company LLC, dated as of June 9, 2017 (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q, filed on August 4, 2017).
21.1	List of Subsidiaries of AquaBounty Technologies, Inc.
31.1	Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of the Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

*Incorporated herein by reference as indicated.

†Management contract or compensatory plan or arrangement.

The registrant hereby undertakes to file with the Securities and Exchange Commission, upon request, copies of any constituent instruments defining the rights of holders of long-term debt of the registrant or its subsidiaries that have not been filed herewith because the amounts represented thereby are less than 10% of the total assets of the registrant and its subsidiaries on a consolidated basis.

Item 16. Form 10-K Summary

Not applicable.

Signatures

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

AQUABOUNTY TECHNOLOGIES, INC.

By: /s/ Ronald L. Stotish

Ronald L. Stotish

Chief Executive Officer, President, and Director

Power of Attorney

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints David A. Frank and Christopher Martin, as his or her attorneys-in-fact, each with the power of substitution, for him or her in any and all capacities, to sign any amendment 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 his substitute or substitutes, may do or cause to be done by virtue hereof.

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

Signature	Title	Date
/s/ Ronald L. Stotish Ronald L. Stotish	President, Chief Executive Officer and Director (Principal Executive Officer)	March 8, 2018
/s/ David A. Frank David A. Frank	Chief Financial Officer and Treasurer (Principal Financial Officer and Principal Accounting Officer)	March 8, 2018
/s/ Richard J. Clothier Richard J. Clothier	Chairman of the Board, Director	March 8, 2018
/s/ Jack A. Bobo Jack A. Bobo	Director	March 8, 2018
/s/ Richard L. Huber Richard L. Huber	Director	March 8, 2018
/s/ Christine St.Clare Christine St.Clare	Director	March 8, 2018
/s/ Rick Sterling Rick Sterling	Director	March 8, 2018
/s/ James C. Turk James C. Turk	Director	March 8, 2018

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of AquaBounty Technologies, Inc.:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of AquaBounty Technologies, Inc. (the "Company") as of December 31, 2017 and 2016, the related consolidated statements of operations and comprehensive loss, changes in stockholders' equity (deficit), and cash flows, for each of the three years in the three-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 as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the three-year period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

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/ Wolf & Company, P.C.
Boston, Massachusetts
March 8, 2018

We have served as the Company's auditor since 2011.

AquaBounty Technologies, Inc.

Consolidated Balance Sheets

	As of December 31,	
	2017	**2016**
Assets		
Current assets:		
Cash and cash equivalents	**$ 492,861**	$ 3,324,609
Certificate of deposit	**13,422**	10,666
Other receivables	**183,926**	164,743
Inventory	**172,363**	—
Prepaid expenses and other current assets	**527,322**	72,983
Total current assets	**1,389,894**	3,573,001
Property, plant and equipment, net	**21,802,976**	1,723,707
Definite-lived intangible assets, net	**184,995**	198,698
Indefinite-lived intangible assets	**191,800**	191,800
Other assets	**162,093**	21,628
Total assets	**$ 23,731,758**	$ 5,708,834
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable and accrued liabilities	**$ 2,666,855**	$ 1,017,851
Current debt	**49,794**	17,913
Total current liabilities	**2,716,649**	1,035,764
Long-term debt	**3,034,420**	2,645,015
Total liabilities	**5,751,069**	3,680,779
Commitments and contingencies		
Stockholders' equity:		
Common stock, $0.001 par value, 200,000,000 shares authorized;		
8,895,094 (2016: 6,463,936) shares outstanding	**8,895**	6,464
Additional paid-in capital	**126,718,186**	101,581,724
Accumulated other comprehensive loss	**(213,884)**	(286,272)
Accumulated deficit	**(108,532,508)**	(99,273,861)
Total stockholders' equity	**17,980,689**	2,028,055
Total liabilities and stockholders' equity	**$ 23,731,758**	$ 5,708,834

See accompanying notes to the consolidated financial statements and report of the independent registered public accounting firm.

AquaBounty Technologies, Inc.

Consolidated Statements of Operations and Comprehensive Loss

	Years ended December 31,		
	2017	**2016**	**2015**
Revenues			
Product Revenues	**$ 53,278**	$ —	$ —
Costs and expenses			
Product Costs	**50,777**	—	—
Sales and marketing	**799,009**	860,365	993,706
Research and development	**3,371,767**	3,429,400	3,338,411
General and administrative	**5,063,824**	3,775,289	2,696,369
Total costs and expenses	**9,285,377**	8,065,054	7,028,486
Operating loss	**(9,232,099)**	(8,065,054)	(7,028,486)
Other income (expense)			
Gain on disposal of equipment	**941**	2,861	1,912
Interest expense	**(21,537)**	(402,554)	(10)
Other income (expense), net	**(5,952)**	(5,914)	(4,928)
Total other income (expense)	**(26,548)**	(405,607)	(3,026)
Net loss	**$ (9,258,647)**	$ (8,470,661)	$ (7,031,512)
Other comprehensive income (loss):			
Foreign currency translation gain (loss)	**72,388**	(59,840)	228,740
Total other comprehensive income (loss)	**72,388**	(59,840)	228,740
Comprehensive loss	**$ (9,186,259)**	$ (8,530,501)	$ (6,802,772)
Basic and diluted net loss per share	**$ (1.06)**	$ (1.60)	$ (1.40)
Weighted average number of common shares -basic and diluted	**8,772,494**	5,303,114	5,037,368

See accompanying notes to the consolidated financial statements and report of the independent registered public accounting firm.

AquaBounty Technologies, Inc.

Consolidated Statements of Changes in Stockholders' Equity (Deficit)

	Common stock issued and outstanding	Par value	Additional paid-in capital	Accumulated other comprehensive loss	Accumulated deficit	Total
Balance at December 31, 2014	4,818,002	$ 4,818	$ 87,731,421	$ (455,172)	$ (83,771,688)	$ 3,509,379
Net loss					(7,031,512)	(7,031,512)
Other comprehensive income				228,740		228,740
Issuance of common stock, net of expenses	424,269	425	2,999,575			3,000,000
Share based compensation	5,334	5	237,817			237,822
Balance at December 31, 2015	5,247,605	$ 5,248	$ 90,968,813	$ (226,432)	$ (90,803,200)	$ (55,571)
Net loss					(8,470,661)	(8,470,661)
Other comprehensive loss				(59,840)		(59,840)
Conversion of debt and accrued interest to common stock	1,212,908	1,213	10,394,620			10,395,833
Cashless exercise of options for common stock	524	—	—			—
Share based compensation	2,899	3	218,291			218,294
Balance at December 31, 2016	6,463,936	$ 6,464	$ 101,581,724	$ (286,272)	$ (99,273,861)	$ 2,028,055
Net loss					**(9,258,647)**	**(9,258,647)**
Other comprehensive income				**72,388**		**72,388**
Issuance of common stock, net of expenses	**2,421,073**	**2,421**	**24,986,836**			**24,989,257**
Exercise of options for common stock	**8,334**	**8**	**27,494**			**27,502**
Share based compensation	**1,751**	**2**	**122,132**			**122,134**
Balance at December 31, 2017	**8,895,094**	**$ 8,895**	**$ 126,718,186**	**$ (213,884)**	**$ (108,532,508)**	**$ 17,980,689**

See accompanying notes to the consolidated financial statements and report of the independent registered public accounting firm.

AquaBounty Technologies, Inc.

Consolidated Statements of Cash Flows

	Years ended December 31,		
	2017	**2016**	**2015**
Operating activities			
Net loss	**$ (9,258,647)**	$ (8,470,661)	$ (7,031,512)
Adjustment to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	**184,946**	153,996	105,952
Share-based compensation	**122,134**	218,294	237,822
Gain on disposal of equipment	**(941)**	(2,861)	(1,912)
Non-cash interest expense	**—**	395,833	—
Changes in operating assets and liabilities:			
Other receivables	**(11,440)**	(121,640)	(21,195)
Inventory	**(169,991)**	—	—
Prepaid expenses and other assets	**(592,602)**	38,054	(12,421)
Accounts payable and accrued liabilities	**625,763**	340,092	(25,032)
Net cash used in operating activities	**(9,100,778)**	(7,448,893)	(6,748,298)
Investing activities			
Purchase of property, plant and equipment	**(18,893,264)**	(934,495)	(74,113)
Deposits on equipment purchases	**(153,663)**	(156,982)	—
Proceeds from sale of equipment	**941**	23,844	—
Payment of patent costs	**—**	(5,664)	(30,372)
Net cash used in investing activities	**(19,045,986)**	(1,073,297)	(104,485)
Financing activities			
Proceeds from issuance of debt	**256,807**	547,142	44,004
Repayment of term debt	**(35,812)**	(6,268)	—
Proceeds from the issuance of convertible debt	**—**	10,000,000	—
Proceeds from the issuance of common stock, net	**24,989,257**	—	3,000,000
Proceeds from exercise of stock options	**27,502**	—	—
Net cash provided by financing activities	**25,237,754**	10,540,874	3,044,004
Effect of exchange rate changes on cash and cash equivalents	**77,262**	(7,496)	(41,062)
Net change in cash and cash equivalents	**(2,831,748)**	2,011,188	(3,849,841)
Cash and cash equivalents at beginning of period	**3,324,609**	1,313,421	5,163,262
Cash and cash equivalents at the end of period	**$ 492,861**	$ 3,324,609	$ 1,313,421
Supplemental disclosure of cash flow information and non-cash transactions:			
Interest paid in cash	**$ 21,537**	$ 6,721	$ 10
Conversion of convertible debt and accrued interest to common stock	**$ —**	$ 10,395,833	$ —
Property and equipment included in accounts payable and accrued liabilities	**$ 1,036,240**	$ 50,132	$ —

See accompanying notes to the consolidated financial statements and report of the independent registered public accounting firm.

1. Nature of business and organization

Nature of business

AquaBounty Technologies, Inc. (the "Parent") was incorporated in December 1991 in the State of Delaware for the purpose of conducting research and development of the commercial viability of a group of proteins commonly known as antifreeze proteins (AFPs). In 1996, the Parent obtained the exclusive licensing rights for a gene construct (transgene) used to create a breed of farm-raised Atlantic salmon that exhibit growth rates that are substantially faster than traditional salmon.

In 2015, the Parent obtained approval from the US Food and Drug Administration for the production, sale, and consumption of its AquAdvantage Salmon product in the United States.

In 2016, the Parent obtained approval from Health Canada for the sale and consumption of its AquAdvantage Salmon product in Canada. Previously, in 2013, the Parent obtained approval from Environment Canada for the production of the product.

AQUA Bounty Canada Inc. (the "Canadian Subsidiary") was incorporated in January 1994 in Canada for the purpose of establishing a biotechnology laboratory to conduct research and development programs related to the Parent's technologies and to commercialize the Parent's products.

AquaBounty Panama, S. de R.L. (the "Panama Subsidiary") was incorporated in May 2008 in Panama for the purpose of conducting commercial trials of the Parent's products.

AquaBounty Farms, Inc. (the "US Subsidiary") was incorporated in December 2014 in the State of Delaware for the purpose of conducting field trials and commercializing the Parent's products in the United States.

AquaBounty Farms Indiana LLC (the "Indiana Subsidiary"), which is wholly owned by the US Subsidiary, was formed in June 2017 in the State of Delaware for the purpose of operating its aquaculture facility in Albany, Indiana.

AquaBounty Brasil Participacoes Ltda. (the "Brazil Subsidiary") was incorporated in May 2015 in Brazil for the purpose of conducting field trials and commercializing the Parent's products.

Basis of presentation

The consolidated financial statements include the accounts of AquaBounty Technologies, Inc. and its wholly owned subsidiaries, AQUA Bounty Canada Inc.; AquaBounty Panama, S. de R.L.; AquaBounty Farms, Inc.; AquaBounty Farms Indiana LLC; and AquaBounty Brasil Participacoes Ltda. The entities are collectively referred to herein as the "Company." All inter-company transactions and balances have been eliminated upon consolidation. Certain balances in the prior periods Financial Statements have been reclassified to conform with the presentation of the 2017 Financial Statements.

On January 5, 2017, the Company implemented a 1-for-30 reverse share split of its outstanding common shares. All share balances in the Financial Statements and accompanying notes have been restated to reflect this change.

Liquidity and Management's Plan

The Company has experienced net losses and negative cash flows from operations since its inception and has cumulative losses attributable to common stockholders of $108.5 million as of December 31, 2017. As a result, management has performed an analysis to evaluate the entity's ability to continue as a going concern within one year after the date that the financial statements are available to be issued.

The Company has historically financed its operations through issuances of equity and the proceeds of debt instruments and will continue to do so until such time that the Company is able to achieve positive cash flows from operations. The Company continues to actively pursue various funding options, including equity offerings, to obtain additional funds to continue the development of its products and bring them to commercial markets. In January 2018, the Company completed a public offering resulting in net proceeds of $10.6 million (Note 16).

Using the proceeds of this financing and the ability to manage expenditures, including the slow down, delaying, or halting of construction projects at our farm sites, management has determined that the Company has sufficient funds to continue as a going concern. Therefore, the accompanying financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business.

2. Summary of significant accounting policies

Use of estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities as of the date of the consolidated financial statements, and the reported amounts of expenses during the reporting periods. Actual results could differ from those estimates.

Comprehensive loss

The Company displays comprehensive loss and its components as part of its consolidated financial statements. Comprehensive loss consists of net loss and other comprehensive income (loss). Other comprehensive income (loss) includes foreign currency translation adjustments.

Foreign currency translation

The functional currency of the Parent is the US Dollar. The functional currency of the Canadian Subsidiary is the Canadian Dollar (C$), and the functional currency of the Panama, US, Indiana, and Brazil Subsidiaries is the US Dollar. For the Canadian Subsidiary, assets and liabilities are translated at the exchange rates in effect at the balance sheet date, equity accounts are translated at the historical exchange rate, and the income statement accounts are translated at the average rate for each period during the year. Net translation gains or losses are adjusted directly to a separate component of other comprehensive income (loss) within stockholders' equity (deficit).

Cash equivalents

The Company considers all highly liquid investments with maturities of three months or less when purchased to be cash equivalents. Cash equivalents consist primarily of business savings accounts.

Certificate of deposit

The Company has a six-month certificate of deposit at December 31, 2017 and 2016, that currently bears interest at 0.45%. It is renewable semi-annually in January and July.

Inventories

The Company measures inventory at the lower of cost or net realizable value (NRV), where NRV is defined as the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation.

Intangible assets

Definite-lived intangible assets include patents and licenses. Patent costs consist primarily of legal and filing fees incurred to file patents on proprietary technology developed by the Company. Patent costs are amortized on a straight-line basis over 20 years beginning with the filing date of the applicable patent. License fees are capitalized and expensed over the term of the licensing agreement.

Indefinite-lived intangible assets include trademark costs, which are capitalized with no amortization as they have an indefinite life.

Property, plant and equipment

Property, plant and equipment are carried at cost, and depreciation expense commences when the asset is placed into service, which may include receiving applicable regulatory approval. The Company depreciates all asset classes over their estimated useful lives, as follows:

Building	25 years
Equipment	7 - 10 years
Office furniture and equipment	3 years
Leasehold improvements	shorter of asset life or lease term
Vehicles	3 years

Impairment of long-lived assets

The Company reviews the carrying value of its long-lived tangible assets and definite-lived intangible assets on an annual basis or more frequently if facts and circumstances suggest that they may be impaired. The carrying values of such assets are considered

impaired when the anticipated identifiable undiscounted cash flows from such assets are less than their carrying values. An impairment loss, if any, is recognized in the amount of the difference between the carrying amount and fair value.

Indefinite-lived intangible assets are subject to impairment testing annually or more frequently if impairment indicators arise. The Company's impairment testing utilizes a discounted cash flow analysis that requires significant management judgment with respect to revenue and expense growth rates, changes in working capital, and the selection and use of the appropriate discount rate. An impairment loss is recognized in the amount of the difference between the carrying amount and fair value.

Revenue Recognition

The Company records revenue on the sale of a product when all revenue recognition criteria are fulfilled, including identifying the contract with a customer; identifying the performance obligations in the contract; determining the transaction price; allocating the transaction price to the performance obligations in the contract; and recognizing revenue when (or as) the Company satisfies a performance obligation. In addition, collectability is assessed before applying the revenue recognition criteria. The Company evaluates customer credit risk in order to conclude it is "probable" it will collect the amount of consideration due in exchange for the goods or services.

Income taxes

The Company uses the liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are recorded for the expected future tax consequences of temporary differences between the financial reporting and income tax bases of assets and liabilities and are measured using the enacted tax rates and laws that are expected to be in effect when the differences reverse. A valuation allowance is established to reduce net deferred tax assets to the amount expected to be realized. The Company follows accounting guidance regarding the recognition, measurement, presentation, and disclosure of uncertain tax positions in the financial statements. Tax positions taken or expected to be taken in the course of preparing the Company's tax returns are required to be evaluated to determine whether the tax positions are "more likely than not" to be upheld under regulatory review. The resulting tax impact of these tax positions is recognized in the financial statements based on the results of this evaluation. The Company did not recognize any tax liabilities associated with uncertain tax positions, nor has it recognized any interest or penalties related to unrecognized tax positions. Generally, the Company is no longer subject to federal and state tax examinations by tax authorities for years before 2014.

Net loss per share

Basic and diluted net loss per share available to common stockholders has been calculated by dividing net loss by the weighted average number of common shares outstanding during the year. Basic net loss is based solely on the number of common shares outstanding during the year. Fully diluted net loss per share includes the number of shares of common stock issuable upon the exercise of warrants and options with an exercise price less than the fair value of the common stock. Since the Company is reporting a net loss for all periods presented, all potential common shares are considered anti-dilutive and are excluded from the calculation of diluted net loss per share.

Share-based compensation

The Company measures and recognizes all share-based payment awards, including stock options made to employees and Directors, based on estimated fair values. The fair value of a share-based payment award is estimated on the date of grant using an option pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as an expense over the requisite service period in the Company's consolidated statement of operations. The Company uses the Black-Scholes option pricing model ("Black-Scholes") as its method of valuation. Non-employee stock-based compensation is accounted for using Black-Scholes to determine the fair value of warrants or options awarded to non-employees with the fair value of such issuances expensed over the period of service.

Business Combinations

In accounting for business combination transactions, the Company first evaluates whether substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or a group of similar identifiable assets. If that threshold is met, the set is not a business and the transaction is deemed an asset purchase. If, however, the assets acquired include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs, then the transaction is deemed to be the purchase of a business.

3. Risks and uncertainties

The Company is subject to risks and uncertainties common in the biotechnology and aquaculture industries. Such risks and uncertainties include, but are not limited to: (i) results from current and planned product development studies and trials; (ii) decisions made by the FDA or similar regulatory bodies in other countries with respect to approval and commercial sale of any of the Company's proposed products; (iii) the commercial acceptance of any products approved for sale and the Company's ability to

manufacture, distribute, and sell for a profit any products approved for sale; (iv) the Company's ability to obtain the necessary patents and proprietary rights to effectively protect its technologies; and (v) the outcome of any collaborations or alliances entered into by the Company.

Concentration of credit risk

Financial instruments that potentially subject the Company to credit risk consist principally of cash and cash equivalents and certificates of deposit. This risk is minimized by the Company's policy of investing in financial instruments with short-term maturities issued by highly rated financial institutions. The Company's cash balances may at times exceed insurance limitations. The Company holds cash balances in bank accounts located in Canada to fund its local operations. These amounts are subject to foreign currency exchange risk, which is minimized by the Company's policy to limit the balances held in these accounts. Balances in Canadian bank accounts totaled C$71,308 ($56,804) at December 31, 2017.

Financial instruments

The carrying amounts reported in the consolidated balance sheets for other receivables and accounts payable approximate fair value based on the short-term maturity of these instruments. The carrying value of term debt approximates its fair value since it provides for market terms and interest rates.

Included in other assets is a long-term investment that consists of 216,281 shares of common stock of A/F Protein, Inc. (AFP), equating to less than 1% ownership, with a cost basis of $21,628, which the Company believes to be the best estimate of market value. AFP and the Company have certain shareholders in common.

4. Inventory

Major classifications of inventory are summarized as follows for December 31, 2017 and 2016:

		2017		2016
Feed	**$**	**60,161**		—
Eggs		**73,967**		—
Fish in process		**38,235**		—
Total inventory	**$**	**172,363**	**$**	**—**

5. Property, plant and equipment

Major classifications of property, plant and equipment are summarized as follows for December 31, 2017 and 2016:

		2017		2016
Land	**$**	**676,083**	$	157,107
Building and improvements		**9,187,160**		1,436,814
Construction in process		**5,119,961**		277,352
Equipment		**8,211,510**		1,037,549
Office furniture and equipment		**136,091**		78,780
Vehicles		**29,135**		27,201
Total property and equipment	**$**	**23,359,940**	$	3,014,803
Less accumulated depreciation and amortization		**(1,556,964)**		(1,291,096)
Property, plant and equipment, net	**$**	**21,802,976**	$	1,723,707

Depreciation and amortization expense for 2017 on property, plant and equipment was $171,242 (2016: $140,649; 2015: 104,842).

In July 2016, the Company purchased the property, plant and equipment of the former Atlantic Sea Smolt plant in Rollo Bay West on Prince Edward Island for $717,225, including legal and other expenses incurred. The Company allocated the purchase price to land, building, and equipment based on valuations and management's estimates. Included in construction in process is $4.5 million for construction costs incurred at the site for the renovation of the existing hatchery building and the construction of two new buildings for grow-out of our fish and for maintaining our broodstock. The Company currently has an additional $0.9 million committed to this project.

In June 2017, the Company purchased the aquaculture facility of Bell Fish Company LLC in Albany, Indiana, for $14.2 million, including legal and other expenses incurred. The facility and related assets acquired from Bell Fish Company LLC provide one input into the Company's process for growing its product, and, accordingly, the purchase of the facility was accounted for as an asset

purchase rather than the acquisition of a "business," consistent with ASU 2017-01, "Business Combinations: Clarifying the Definition of a Business." There are no future obligations related to the asset purchase for the Company; no liabilities were assumed; and no workforce, inventory, or customers were acquired. The Company allocated the purchase price to land, buildings, and equipment based on external valuations and management's estimates. The Company intends to invest approximately $5.0 million to upgrade the facility for use to grow out its AquAdvantage Salmon for harvest and sale in the United States. Included in construction in process is $0.6 million in renovations costs incurred at the site. The Company currently has an additional $1.2 million committed to this project.

6. Prepaid expenses and other current assets

Prepaid expenses and other current assets include the following at December 31, 2017 and 2016:

		2017		2016
Prepaid insurance	**$**	**84,801**	$	35,544
Prepaid supplies		**33,132**		17,066
Prepaid professional services		**16,059**		17,533
Prepaid rent and lease deposits		**5,852**		2,840
Deferred costs of public offering		**387,478**		—
Total prepaid expenses and other current assets	**$**	**527,322**	$	72,983

7. Accounts payable and accrued liabilities

Accounts payable and accrued liabilities include the following at December 31, 2017 and 2016:

		2017		2016
Accounts payable	**$**	**1,089,919**	$	161,768
Accrued payroll including vacation		**364,368**		242,436
Accrued professional fees		**438,378**		500,430
Accrued research and development costs		**4,800**		87,751
Accrued franchise and excise taxes		**240,880**		22,994
Accrued construction costs		**509,950**		—
Accrued other		**18,560**		2,472
Accounts payable and accrued liabilities	**$**	**2,666,855**	$	1,017,851

8. Debt

The current terms and conditions of long-term debt outstanding at December 31, 2017 and 2016, are as follows:

	Interest rate	**Monthly repayment**	**Maturity date**		**2017**		**2016**
ACOA AIF grant (C$2,871,919)	0%	Royalties	-	**$**	**2,287,771**	$	2,135,846
ACOA term loan (C$337,000)	0%	C$3,120	June 2026		**251,056**		—
PEI Finance term loan (C$717,093)	4%	C$4,333	July 2021		**545,387**		527,082
Total debt				**$**	**3,084,214**	$	2,662,928
less: current portion					**(49,794)**		(17,913)
Long-term debt				**$**	**3,034,420**	$	2,645,015

Principal payments due on the long-term debt are as follows:

Year	**AIF**	**ACOA**	**FPEI**	**Total**
2018	$ —	$ 29,825	$ 19,969	$ 49,794
2019	—	29,825	20,783	50,608
2020	—	29,825	21,628	51,453
2021	—	29,825	483,007	512,832
2022	—	29,825	—	29,825
Thereafter	2,287,771	101,931	—	2,389,702
Total	$ 2,287,771	$ 251,056	$ 545,387	$ 3,084,214

Atlantic Canada Opportunities Agency ("ACOA")

ACOA is a Canadian government agency that provides funding to support the development of businesses and to promote employment in the Atlantic region of Canada.

In January 2009, the Canadian Subsidiary was awarded a grant from ACOA to provide a contribution towards the funding of a research and development project. The total amount claimed under the award over the five-year claim period was C$2,871,919 ($2,287,771). No further funds are available under this grant. Amounts claimed by the Canadian Subsidiary must be repaid in the form of a 10% royalty on any products that are commercialized out of this research project, until the loan is fully repaid. The first scheduled repayment was June 30, 2015, and subsequent repayments are due annually until the full balance of the contributed funds is paid. The Company did not generate any revenue from the sale of products related to this research during 2016 or 2017 and therefore did not make a royalty payment during 2017. Revenue from the sale of AquaAdvantage Salmon are not subject to the royalty and the Company does not expect to commercialize products that would be subject to the royalty in the next five years.

In February 2016, the Canadian Subsidiary executed an agreement with ACOA to partially finance the renovations to the Rollo Bay site. The terms of the agreement include funding up to C$337,000 ($268,454) with repayment commencing after the final draw-down of the funds. The loan term is nine years with a zero percent interest rate. As of December 31, 2017, the Canadian Subsidiary has drawn down the full amount of available funds and commenced repayment.

Finance PEI ("FPEI")

FPEI is a corporation of the Ministry of Economic Development and Tourism for Prince Edward Island, Canada, and administers business financing programs for the provincial government. In August 2016, the Canadian Subsidiary obtained a loan from FPEI in the amount of C$717,093 ($571,236) to partially finance the purchase of the assets of the former Atlantic Sea Smolt plant in Rollo Bay West on Prince Edward Island. The loan is being repaid through monthly payments of principal and interest with a balloon payment for the balance due in July 2021. The loan is collateralized by a mortgage executed by the Canadian Subsidiary, which conveys a first security interest in all of its current and acquired assets. The loan is guaranteed by the Parent.

Intrexon

Intrexon is a public company specializing in next-generation synthetic biology and the Company's majority shareholder. In February 2016, Intrexon agreed to provide the Company with a $10.0 million convertible debt facility. The unsecured loan could be drawn-down in increments of $2.5 million, carried an interest rate of 10.0%, and all principal and accrued interest would mature on March 1, 2017. In December 2016, Intrexon converted the outstanding balance of $10.0 million plus accrued interest of $395,833 into 1,212,908 common shares in the Company.

The Company recognized interest expense in 2017 of $21,520 (2016: $402,554; 2015: $0) on its interest-bearing debt.

9. Stockholders' equity

The Company is presently authorized to issue up to 240 million shares of stock, of which 40 million are authorized as preferred stock and 200 million as common stock. At December 31, 2017, the Company had zero shares (2016: zero) of preferred stock and 8,895,094 shares (2016: 6,463,936) of common stock, issued and outstanding.

In December 2016, the Board approved a reverse share split ratio of 1-for-30 to be implemented on January 5, 2017. All share balances in the Financial Statements and accompanying notes have been restated to reflect this change.

Common stock

The holders of the common stock are entitled to one vote for each share held at all meetings of stockholders. Dividends and distribution of assets of the Company in the event of liquidation are subject to the preferential rights of any outstanding preferred shares. At December 31, 2017, the Company had reserved 227,203 shares of common stock for the exercise of options.

Recent issuances

In January 2017, the Company closed an equity subscription of $25 million with Intrexon for 2,421,073 common shares at a price of $10.326.

In December 2016, the Company issued 1,212,908 shares of common stock upon the conversion of the outstanding principal and accrued interest of $10.4 million on the convertible debt facility with Intrexon.

In June 2015 the Company closed an equity subscription of $3.0 million with Intrexon for 424,269 common shares at a price of $7.07.

Restricted stock

The Company grants restricted common stock to the Chairman of the Board of Directors as part of his compensation package. Generally, the shares are fully vested upon the third anniversary of the grant date. Unvested shares can be cancelled upon termination of the Chairman's services.

A summary of the Company's unvested shares of restricted stock as of December 31, 2017, is as follows:

	Shares	Weighted average grant date fair value
Unvested at December 31, 2016	4,169	$ 7.72
Granted	1,751	14.20
Vested	(3,223)	8.19
Unvested at December 31, 2017	2,697	$ 11.37

During 2017, the Company expensed $26,400 (2016: $18,070; 2015: $8,604) related to the Chairman's restricted stock awards. At December 31, 2017, the balance of unearned share-based compensation to be expensed in future periods related to the restricted stock awards is $30,652. The period over which the unearned share-based compensation is expected to be earned is approximately two years.

Stock options

In 2006, the Company established the 2006 Equity Incentive Plan (the "2006 Plan"). The 2006 Plan provided for the issuance of incentive stock options to employees of the Company and non-qualified stock options and awards of restricted stock to Directors, officers, employees, and consultants of the Company. In accordance with its original terms, no further shares may be granted under the 2006 Plan subsequent to March 18, 2016. All outstanding awards under the 2006 Plan will continue until their individual termination dates.

In March 2016, the Company's Board of Directors adopted the AquaBounty Technologies, Inc. 2016 Equity Incentive Plan (the "2016 Plan") to replace the 2006 Plan. The 2016 Plan provides for the issuance of incentive stock options, non-qualified stock options, and awards of restricted and direct stock purchases to Directors, officers, employees, and consultants of the Company. The aggregate number of shares of common stock that may be issued pursuant to awards granted under the 2016 Plan cannot exceed 450,000. The 2016 Plan was approved by the Company's shareholders at its Annual Meeting on April 26, 2016.

The Company's option activity under the 2006 Plan and the 2016 Plan is summarized as follows:

	Number of options	Weighted average exercise price
Outstanding at December 31, 2016	185,591	$ 7.89
Issued	52,500	14.20
Exercised	(8,334)	3.30
Expired	(2,554)	19.50
Outstanding at December 31, 2017	227,203	$ 9.39
Exercisable at December 31, 2017	192,748	$ 8.55

Unless otherwise indicated, options issued to employees, members of the Board of Directors, and non-employees are vested over one to three years and are exercisable for a term of ten years from the date of issuance.

The weighted average fair value of stock options granted during 2017 was $4.55 (2016: $4.46; 2015: $4.06). The total intrinsic value of options exercised in 2017 was $43,420 (2016: $6,338; 2015: $0). At December 31, 2017, the total intrinsic value of all options outstanding was $17,454 (2016: $602,773), the total intrinsic value of exercisable options was $17,454 (2016: $597,872), and the total number of shares available for grant under the 2016 Plan was 397,500 (2016: 450,000).

The following table summarizes information about options outstanding and exercisable at December 31, 2017:

Weighted average exercise price of outstanding options	Number of options outstanding	Weighted average remaining estimated life (in years)	Number of options exercisable	Weighted average price of outstanding and exercisable options
$3.30 - $5.70	90,473	2.2	90,395	
$6.90 - $9.60	53,175	4.7	52,713	
$9.90 - $10.80	4,800	5.2	4,800	
$14.20 - $23.40	78,755	8.2	44,840	
	227,203		192,748	$8.55

The fair values of stock option grants to employees and members of the Board of Directors during 2017, 2016, and 2015 were measured on the date of grant using Black-Scholes, with the following weighted average assumptions:

	2017	2016	2015
Expected volatility	**78%**	53%	88%
Risk free interest rate	**1.80%**	1.31%	1.54%
Expected dividend yield	**0.0%**	0.0%	0.0%
Expected life (in years)	**5**	5	5

The risk-free interest rate is estimated using the Federal Funds interest rate for a period that is commensurate with the expected term of the awards. The expected dividend yield is zero because the Company has never paid a dividend and does not expect to do so for the foreseeable future. The expected life was based on a number of factors including historical experience, vesting provisions, exercise price relative to market price, and expected volatility. The Company believes that all groups of employees demonstrate similar exercise and post-vesting termination behavior and, therefore, does not stratify employees into multiple groups and forfeitures are recognized as they occur. The expected volatility was estimated using the Company's historical price volatility over a period that is commensurate with the expected term of the awards.

Total share-based compensation on stock-option grants amounted to $95,734 in 2017 (2016: $200,224; 2015: $229,218). At December 31, 2017, the balance of unearned share-based compensation to be expensed in future periods related to unvested share-based awards is $157,395. The period over which the unearned share-based compensation is expected to be earned is approximately two years.

Share-based compensation

The following table summarizes share-based compensation costs recognized in the Company's Consolidated Statements of Operations and Comprehensive Loss for the years ended December 31, 2017, 2016, and 2015:

	2017	2016	2015
Research and development	**$ 3,168**	$ 2,115	$ 6,699
Sales and marketing	**9,315**	65,517	75,843
General and administrative	**109,651**	150,662	155,280
Total share-based compensation	**$ 122,134**	$ 218,294	$ 237,822

10. Income taxes

On December 22, 2017, the Tax Cuts and Jobs Act (the "Tax Act") was signed into law and significantly revised U.S. corporate income tax law by, among other things, reducing the corporate income tax rate to 21% effective January 1, 2018, and implementing a modified territorial tax system that includes a one-time transition tax on deemed repatriated earnings of foreign subsidiaries. The SEC staff issued Staff Accounting Bulletin No. 118 ("SAB 118") to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed, including computations, in reasonable detail to complete the accounting for certain income tax effects of the Tax Act. The Company has recognized provisional tax impacts related to revaluation of the Company's domestic deferred tax assets and the impact of revaluation of those deferred tax assets on the Company's valuation allowance and included those amounts in the consolidated financial statements for the year ended December 31, 2017. The actual impact of the Tax Act may differ from the Company's estimates due to, among other things, changes in interpretations and assumptions made and guidance that may be issued as a result of the Tax Act.

The components of loss before income taxes for the years ended December 31, 2017, 2016, and 2015, are presented below:

	2017	2016	2015
Domestic	**$ (6,526,706)**	$ (5,950,862)	$ (4,780,607)
Foreign	**(2,731,941)**	(2,519,799)	(2,250,905)
Loss before income taxes	**$ (9,258,647)**	$ (8,470,661)	$ (7,031,512)

Income taxes computed using the federal statutory income tax rate differs from the Company's effective tax rate for the years ended December 31, 2017, 2016, and 2015, primarily due to the following:

	2017	2016	2015
Income tax benefit	**$ (3,147,940)**	$ (2,880,025)	$ (2,390,714)
State and provincial income tax, net of federal benefit	**(678,438)**	(604,354)	(47,976)
Permanent differences	**(2,923)**	234,247	158,207
US-Foreign rate differential	**371,551**	359,729	(165,029)
Other, net	**(98,947)**	73,220	(11,125)
Effect of tax reform	**3,687,844**	—	—
	131,147	(2,817,183)	(2,456,637)
Change in valuation allowance	**(131,147)**	2,817,183	2,456,637
Total income tax	**$ —**	$ —	$ —

As of December 31, 2017, the Company has net domestic operating loss carryforwards of approximately $28.2 million to offset future federal taxable income, which begin to expire in 2019. The future utilization of the net operating loss and tax credit carryforwards, however, is subject to annual use limitations based on the change in stock ownership rules of Internal Revenue Code Sections 382 and 383. The Company experienced a change in ownership under these rules during 2012 and revised its calculation of net operating loss carryforwards based on annual limitation rules. The Company also has foreign net operating loss carryforwards in the amount of approximately $15.7 million and foreign research and development expense tax credits of approximately $2.8 million at December 31, 2017, which expire at various times commencing in 2018. Since the Company has incurred only losses from inception and there is uncertainty related to the ultimate use of the loss carryforwards and tax credits, a valuation allowance has been recognized to offset the Company's deferred tax assets, and no benefit for income taxes has been recorded.

Significant components of the Company's deferred tax assets and liabilities are as follows:

	2017	2016
Deferred tax assets:		
Net operating loss carryforwards	**$ 12,411,425**	$ 12,844,999
Foreign research and development tax credit carryforwards	**2,832,340**	2,428,094
Property and equipment	**482,161**	412,283
Accounts receivable and other	**270**	400
Stock options	**40,071**	50,580
Accrued vacation	**26,054**	34,107
Accrued compensation	**58,131**	—
Intangible assets	**(110,899)**	(162,057)
Total deferred tax assets	**$ 15,739,553**	$ 15,608,406
Valuation allowance	**$ (15,739,553)**	$ (15,608,406)
Net deferred tax assets	**$ —**	$ —

The valuation allowance increased by $131,147 during 2017 and increased by $2,817,183 during 2016. The increase in 2017 is primarily due to increases in foreign research and development tax credits and property and equipment, offset by a reduction in net operating loss carryforwards resulting from the impact of tax reform.

The increase in 2016 was primarily due to an increase in deferred tax assets for net operating loss carryforwards and foreign tax credits.

11. Commitments and contingencies

The Company recognizes and discloses commitments when it enters into executed contractual obligations with other parties. The Company accrues contingent liabilities when it is probable that future expenditures will be made and such expenditures can be reasonably estimated.

Lease commitments

In July 2017, the Company extended the lease for its office space in Maynard, Massachusetts. The new lease for 3,558 square feet of office space has a term of five years and seven months, ending March 2023. Lease payments over the term total $332,824.

In May 2016, the Company extended its lease for its Panama farm site. The lease has a term of two years, ending in May 2018, with total rent payments of $360,000.

In addition, the Company leases office space in Brazil on a month-to-month basis.

Total rent expense in 2017 was $214,634 (2016: $202,788; 2015: $202,237). Future minimum commitments under the Company's operating leases are $392,824 with $114,411 in 2018 and $62,858 in 2019.

The following table summarizes our significant contractual obligations and commercial commitments at December 31, 2017, and the effects such obligations are expected to have on our liquidity and cash flows in future periods (in thousands):

	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Maynard office lease	333	54	128	134	17
Panama site lease	60	60	—	—	—
Total	$ 393	$ 114	$ 128	$ 134	$ 17

Employment agreements

The Company has employment agreements with certain of its officers. The agreements provide for base pay and benefits, as defined. Under certain circumstances of termination, the Company must make severance payments.

12. Retirement plan

The Company has a savings and retirement plan for its US employees that qualifies under Section 401(k) of the Internal Revenue Code. The plan covers substantially all employees and provides for voluntary contributions by participating employees up to the maximum contribution allowed under the Internal Revenue Code. Contributions by the Company can be made, as determined by the Board of Directors, provided the amount does not exceed the maximum permitted by the Internal Revenue Code. Company contributions made and expensed in operations in connection with the plan during the year ended December 31, 2017, amounted to $31,308 (2016: $33,422; 2015: $29,931).

The Company also has a Registered Retirement Savings Plan for its Canadian employees. Company contributions made and expensed in operations in connection with the plan during the year ended December 31, 2017, amounted to $26,578 (2016: $21,777; 2015: $16,274).

13. Related Party Collaboration Agreement

In February 2013, the Company entered into the ECC with Intrexon, its majority shareholder, pursuant to which the Company will use Intrexon's UltraVector and other technology platforms to develop and commercialize additional genetically modified traits in finfish for human consumption. The ECC, which can be terminated by the Company upon 90 days' written notice, grants the Company a worldwide license to use specified patents and other intellectual property of Intrexon in connection with the research, development, use, importing, manufacture, sale, and offer for sale of products involving DNA administered to finfish for human consumption. Such license is exclusive with respect to any clinical development, selling, offering for sale, or other commercialization of developed products, and otherwise is non-exclusive.

Under the ECC and subject to certain exceptions, the Company is responsible for, among other things, the performance of the program, including development, commercialization, and certain aspects of manufacturing developed products. Among other things, Intrexon is responsible for the costs of establishing manufacturing capabilities and facilities for the bulk manufacture of certain products developed under the program; certain other aspects of manufacturing; costs of discovery-stage research with respect to platform improvements; and costs of filing, prosecution, and maintenance of Intrexon's patents.

The Company will pay Intrexon quarterly 16.66% of the gross profits calculated under the terms of the agreement for each developed product. The Company has likewise agreed to pay Intrexon 50% of quarterly revenue obtained from a sublicensor in the event of a sublicensing arrangement. In addition, the Company will reimburse Intrexon for the costs of certain services provided by Intrexon. No royalties were paid to Intrexon in 2017, and the Company does not expect to pay royalties in 2018.

Total Intrexon service costs incurred under the terms of this agreement amounted to $562,039 in 2017 (2016: $912,182; 2015: $1,186,404), of which $135,301 is included in accounts payable and accrued liabilities at December 31, 2017 (2016: $73,780), and is included as a component of research and development expense in the Consolidated Statements of Operations and Comprehensive Loss.

14. Recently Issued Accounting Standards

Recently issued accounting pronouncements that may be relevant to the Company are the following:

In August 2014, the Financial Accounting Standards Board (the “FASB”) issued Accounting Standards Update (“ASU”) 2014-15 “Disclosure of Uncertainties about an Entity’s Ability to Continue as a Going Concern.” The core principle of the guidance is that an entity’s management should evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the entity’s ability to continue as a going concern within one year after the date that the financial statements are available to be issued. When management identifies conditions or events that raise substantial doubt about an entity’s ability to continue as a going concern, management should consider whether its plans that are intended to mitigate those relevant conditions or events that will alleviate the substantial doubt are adequately disclosed in the footnotes to the financial statements. This guidance is now effective and has been adopted by the Company.

In February 2016, the FASB issued ASU 2016-02, “Leases,” which requires a lessee to recognize lease liabilities for the lessee’s obligation to make lease payments arising from a lease, measured on a discounted basis, and right-of-use assets, representing the lessee’s right to use, or control the use of, specified assets for the lease term. Additionally, the new guidance has simplified accounting for sale and leaseback transactions. Lessor accounting is largely unchanged. The ASU is effective for fiscal years beginning after December 15, 2018. It is expected that assets and liabilities will increase based upon the present value of remaining lease payments for leases in place at the adoption date. Based on current leases in place, this is not expected to be material to the Company’s consolidated financial statements; however, such amounts may be material to the financial statements depending on terms of any lease renewals and other leases entered into.

Management does not expect any other recently issued, but not yet effective, accounting standards to have a material effect on its results of operations or financial condition.

15. Quarterly Financial Information (unaudited)

The following information has been derived from unaudited consolidated statements that, in the opinion of management, include all recurring adjustments necessary for a fair statement of such information.

	Three Months Ended 2017			
	March 31	June 30	September 30	December 31
Revenue	$ —	$ 53,278	$ —	$ —
Operating loss	(2,049,098)	(2,087,074)	(2,439,230)	(2,655,756)
Net loss	(2,055,743)	(2,093,436)	(2,446,219)	(2,663,249)
Basic and diluted net loss per share	$ (0.24)	$ (0.24)	$ (0.28)	$ (0.30)
	Three Months Ended 2016			
	March 31	June 30	September 30	December 31
Revenue	$ —	$ —	$ —	$ —
Operating loss	(1,796,159)	(1,979,021)	(2,008,917)	(2,280,957)
Net loss	(1,818,977)	(2,063,836)	(2,141,826)	(2,446,022)
Basic and diluted net loss per share	$ (0.35)	$ (0.39)	$ (0.41)	$ (0.45)

16. Subsequent events

On January 17, 2018, the Company completed a public offering totaling $12 million for 3,692,307 of its common shares at a price of $3.25. The transaction included an equivalent number of warrants, each with a five-year term and a $3.25 strike price. The Company’s underwriter had a thirty-day period within which it had the option to purchase up to 533,846 additional common shares and/or

warrants to cover over-allotments. As of February 17, 2018, the underwriter had exercised its option to purchase zero common shares and 533,846 warrants for a total of $5,338. Intrexon participated in the offering, purchasing 1,538,461 shares of common stock and warrants for $5 million.

EXHIBIT 21.1

List of Subsidiaries of AquaBounty Technologies, Inc.

The following is a list of subsidiaries of AquaBounty Technologies, Inc., the names under which such subsidiaries do business, and the state or country in which each was organized:

Name	Jurisdiction of Organization
AquaBounty Brasil Participações Ltda.	Brazil
AQUA Bounty Canada Inc.	Canada
Aqua Bounty Farms Chile Limitada	Chile
AquaBounty Farms, Inc.	Delaware
AquaBounty Farms Indiana LLC	Delaware
AquaBounty Panama, S. de R.L.	Panama

EXHIBIT 31.1

Certification

I, Ronald L. Stotish, certify that:

1. I have reviewed this Annual Report on Form 10-K of AquaBounty Technologies, Inc;

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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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) designed such internal controls over financial reporting, or caused such internal controls over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) 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

(d) 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; and

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 controls 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: March 8, 2018

/s/ Ronald L. Stotish

Chief Executive Officer

EXHIBIT 31.2

Certification

I, David A. Frank, certify that:

1. I have reviewed this Annual Report on Form 10-K of AquaBounty Technologies, Inc;

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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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) designed such internal controls over financial reporting, or caused such internal controls over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) 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

(d) 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; and

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 controls 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: March 8, 2018

/s/ David A. Frank

Chief Financial Officer

EXHIBIT 32.1

The following certification is being made to the Securities and Exchange Commission solely for purposes of Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. 1350). This certification is not to be deemed a part of the Report, nor is it deemed to be "filed" for any purpose whatsoever.

In accordance with the requirements of Section 906 of the Sarbanes-Oxley Act of 2002 (18 USC 1350), each of the undersigned hereby certifies, to his knowledge, that:

(i) this Annual Report on Form 10-K for the year ended December 31, 2017, which this statement accompanies, fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and

(ii) the information contained in this Annual Report on Form 10-K for the year ended December 31, 2017, fairly presents, in all material respects, the financial condition and results of operations of AquaBounty Technologies, Inc.

Dated as of this 8th day of March 2018.

/s/ Ronald L. Stotish	/s/ David A. Frank
Ronald L. Stotish Chief Executive Officer	David A. Frank Chief Financial Officer