UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2023

☐ **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 001-39011

EXICURE, INC.

(Exact name of registrant as specified in its charter)

Delaware	**81-5333008**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

2430 N. Halsted St.
Chicago, IL 60614
(Address of principal executive offices and Zip Code)
(847) 673-1700
(Registrant's telephone number, including area code)

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

Common Stock, par value $0.0001 per share	**XCUR**	**The Nasdaq Stock Market LLC**
(Title of each class)	**(Trading symbol(s))**	**(Name of each exchange on which registered)**

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. Yes ☐ No ☒

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☐ No ☒

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

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

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to § 240.10D-1(b). ☐

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

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant as of June 30, 2023 was approximately $5.8 million, based on a closing price of $1.31 per share of the registrant's common stock as reported on The Nasdaq Capital Market. For purposes of this computation, all officers, directors, and 10% beneficial owners of the registrant are deemed to be affiliates. Such determination should not be deemed to be an admission that such officers, directors or 10% beneficial owners are, in fact, affiliates of the registrant.

As of May 31, 2024, the registrant had 8,651,148 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

None.

EXICURE, INC.

ANNUAL REPORT ON FORM 10-K

TABLE OF CONTENTS

PART I

Item 1. Business	7
Item 1A. Risk Factors	11
Item 1B. Unresolved Staff Comments	22
Item 1C. Cybersecurity	23
Item 2. Properties	23
Item 3. Legal Proceedings	23
Item 4. Mine Safety Disclosures	24

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	25
Item 6. [Reserved]	26
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations	27
Item 7A. [Reserved]	36
Item 8. Financial Statements and Supplementary Data	37
Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure	81
Item 9A. Controls and Procedures	81
Item 9B. Other Information	82
Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections	82

PART III

Item 10. Directors, Executive Officers and Corporate Governance	83
Item 11. Executive Compensation	85
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	89
Item 13. Certain Relationships and Related Transactions, and Director Independence	90
Item 14. Principal Accounting Fees and Services	92

PART IV

Item 15. Exhibits and Financial Statement Schedules	94
Item 16. Form 10-K Summary	96

Signatures 97

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, including the sections titled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," contains express or implied "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. All statements other than statements of historical fact contained in this Annual Report on Form 10-K are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "may," "could," "will," "would," "should," "expect," "plan,", "anticipate," "believe," "estimate," "intend," "predict," "seek," "contemplate," "project," "continue," "potential," "ongoing" or the negative of these terms or other comparable terminology. Forward-looking statements also include the assumptions underlying or relating to such statements.

Although we believe that the expectations reflected in the forward-looking statements contained herein are reasonable, such expectations or any of the forward-looking statements may prove to be incorrect and actual results could differ materially from those projected or assumed in the forward-looking statements. Our future financial condition and results of operations, as well as any forward-looking statements, are subject to inherent risks and uncertainties, including, but not limited to, the risk factors set forth in Part I, Item 1A "Risk Factors" below and for the reasons described elsewhere in this Annual Report on Form 10-K. All forward-looking statements and reasons why results may differ included in this report are made as of the date hereof and we do not intend to update any forward-looking statements except as required by law. These forward-looking statements include, but are not limited to, statements concerning the following:

- substantial uncertainties regarding our exploration of strategic alternatives to maximize stockholder value, including whether we are able to identify potential partners and consummate transactions, in a timely manner or at all, whether we would be able to obtain sufficient funding to complete this process and whether any such transactions would generate value for stockholders;
- our ability to generate any meaningful value from sales, out-licensing or other transactions involving our historical assets;
- our ability to raise the substantial additional capital that is needed within the next few months to fund our operations and our pursuit of strategic alternatives, particularly given our current lack of a revenue source or committed financing and the substantial doubt about our ability to continue as a going concern;
- our ability to successfully appeal the delisting determination made by the Nasdaq staff and correct deficiencies and to remain listed on The Nasdaq Capital Market ("Nasdaq"), including the ability to maintain minimum stockholders' equity and stock price, and comply with applicable governance requirements, for continued listing on Nasdaq;
- any strategic plan or alternative that we may identify and pursue may involve unexpected costs, liabilities and/or delays and may not deliver anticipated benefits to our stockholders;
- our estimates of expenses, use of cash, timing of future cash needs, ongoing losses and capital requirements may prove to be inaccurate;
- uncertainty about reaction from investors and potential business partners to our recent changes of control and board and management composition and the future direction of the Company, and the ability of our controlling stockholders and new board members and management to earn the confidence of investors and potential partners despite limited experience with U.S. public companies, and how these factors may impact our ability to obtain funding and execute any strategic alternatives that we may identify;
- potential turnover of senior management in the near term, and any inability to attract and retain qualified management and other key personnel, could create significant continuity risk and could impair our ability to raise capital and execute on our exploration of strategic alternatives;

- our ability to comply with all applicable laws, which may be particularly challenging given the recent turnover in our board and management, significant reductions in force, limited resources and the potential to enter into new business areas with which we have no past experience;
- our ability to obtain and maintain intellectual property protection for our technologies and our ability to operate our business without infringing the intellectual property rights of others;
- the impact of macroeconomic conditions, including global inflation, actions taken by central banks to counter inflation, capital market and bank instability, exchange rate fluctuations, supply chain disruptions and energy and fuel prices;
- the impact of government laws and regulations; and
- other factors that may impact our financial results and condition and our ongoing strategic efforts.

These statements relate to future events or our future operational or financial performance, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Factors that may cause actual results to differ materially from current expectations include, among other things, those listed in Part I, Item 1A of this Annual Report on Form 10-K under the section titled “Risk Factors” and elsewhere in this Annual Report on Form 10-K.

Any forward-looking statement in this Annual Report on Form 10-K reflects our current view with respect to future events and is subject to these and other risks, uncertainties and assumptions relating to our business, results of operations, industry and future growth. Given these uncertainties, you should not place undue reliance on these forward-looking statements. No forward-looking statement is a guarantee of future performance. You should read this Annual Report on Form 10-K and the documents that we reference herein and have filed with the SEC as exhibits thereto completely and with the understanding that our actual future results may be materially different from any future results expressed or implied by these forward-looking statements. Except as required by law, we assume no, and specifically decline any, obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.

This Annual Report on Form 10-K also contains or may contain estimates, projections and other information concerning our industry, our business and the markets for certain therapeutics, including data regarding the estimated size of those markets, their projected growth rates and the incidence of certain medical conditions. Information that is based on estimates, forecasts, projections or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained these industry, business, market and other data from reports, research surveys, studies and similar data prepared by third parties, industry, medical and general publications, government data and similar sources. In some cases, we do not expressly refer to the sources from which these data are derived.

Except where the context otherwise requires, in this Annual Report on Form 10-K, the “Company,” “Exicure,” “we,” “us” and “our” refers to Exicure, Inc., a Delaware corporation, and, where appropriate, our subsidiary.

TRADEMARKS

All trademarks, service marks and trade names appearing in this Annual Report on Form 10-K are the property of their respective holders. Use or display by us of other parties' trademarks, trade dress, or products in this Annual Report is not intended to, and does not, imply a relationship with, or endorsements or sponsorship of, us by the trademark or trade dress owners.

PART I

Unless otherwise stated or the context otherwise indicates, references to "Exicure," the "Company," "we," "our," "us," or similar terms refer to Exicure, Inc. and our wholly-owned subsidiary, Exicure Operating Company. Exicure Operating Company, which we refer to as "Exicure OpCo," holds all material assets and conducts all business activities and operations of the Company.

Item 1. Business.

Overview

Historically, we have been an early-stage biotechnology company focused on developing nucleic acid therapies targeting ribonucleic acid against validated targets. In September 2022, we announced a significant reduction in force, suspension of preclinical activities and halting of all research and development, and that we were exploring strategic alternatives to maximize stockholder value. While the foregoing efforts are continuing, with respect to the Company's historical assets, we do not expect they will generate significant value for stockholders. Therefore, we are engaging in a broader exploration of strategic alternatives. This effort involves exploring growth through transactions with potential partners that see opportunity in joining an existing, publicly-traded organization. We are exploring transactions in industries unrelated to our historical operations.

Because we currently have no source of revenue or committed financing, we will require substantial additional funding in the very near term in order to satisfy existing obligations, continue operations and our exploration of strategic alternatives and consummate any transactions that we may identify.

Recent Developments

Restructuring

On December 10, 2021, we announced a strategic reduction in force and other cost cutting measures to reduce cash burn. On September 26, 2022, we announced our commitment to a plan to wind down our existing preclinical programs, including the development of our SCN9A program, to suspend all of our research and development ("R&D") activities, including suspension of all partnered programs, and to implement a reduction in force whereby we reduced approximately 66% of our then-existing workforce, as well as other cost-cutting measures (collectively, the "Plan"). The purpose of the Plan was to decrease expenses, thereby, extending our cash runway, and enable us to maintain a streamlined organization to support key corporate functions.

Change of Control

On September 26, 2022, the Company entered into a securities purchase agreement (the "Securities Purchase Agreement") with CBI USA, Inc. ("CBI USA"), pursuant to which the Company agreed to issue and sell to CBI USA in a private placement an aggregate of 3,400,000 shares of Common Stock, at a purchase price of $1.60 per share. The private placement closed on February 24, 2023 (the "Closing Date").

CBI USA funded the acquisition pursuant to the Securities Purchase Agreement through a loan from its affiliate, DGP Co., Ltd. ("DGP"). On June 23, 2023, DGP exercised its the option pursuant to the loan and acquired the 3,400,000 shares of Common Stock initially acquired by CBI USA pursuant to the Securities Purchase Agreement. DGP subsequently agreed to sell its shares to a third party, with the closing of 10% (340,000 shares) occurring in February 2024 and the remainder to close by or on June 30, 2024.

The Securities Purchase Agreement, as confirmed and clarified by that certain letter agreement, dated October 31, 2022, between the Company and CBI USA, provided CBI USA together with its affiliates and any "group" of which it or they are a member with the right to designate directors to the Company's board of directors in proportion to the ownership of CBI USA and its affiliates and any such group. CBI USA and DGP have announced they expect to exercise such rights as a group. Together, they beneficially own 45% of the outstanding shares of Common Stock based on their most recent Schedule 13D amendment. As noted above, DGP has entered into an agreement to sell its remaining shares to a third party by or on June 30, 2024.

Current Focus

The Company currently expects to focus its efforts on the following:

- explore growth through transactions with potential partners that see opportunity in joining an existing, publicly-traded organization. The board of directors will consider any promising transactions that it believes can create value for stockholders, including in industries unrelated to our historical operations. The Company expects these efforts may be focused in Asia where its significant investors and board members have relationships and business connections, although domestic transactions will also being considered. Transactions that may be explored could include reverse mergers or share exchanges, as well as acquisitions of other businesses or investments. There can be no assurance that any agreement, arrangement or understanding with respect to such a transaction will be reached, or the potential structure or financial and other terms of any agreement, arrangement or understanding that may be reached.

- seek additional financing for the Company as needed to support these activities. Without a current source of revenue or committed financing, it is necessary to obtain substantial additional financing in the very near term in order to satisfy existing obligations, operate and pursue these activities. There can be no assurance that such financing, or financing in sufficient amounts or on acceptable terms, will be received.

- continue our efforts to seek to maximize stockholder value that can be derived from historical biotechnology assets. In February 2024, the Company exclusively licensed its relevant patents in the field of hepatitis to a third party for the development of our prior drug candidate cavrotolimod. In return, the Company received a small, one-time payment and is entitled to a modest royalty on future sales of the licensed technology. We are continuing to explore additional licenses or sales of our intellectual property. While these transactions may provide short-term liquidity relief in the form of upfront payments and/or the possibility to receive royalties in the future, we do not expect they will provide material benefits to the Company or our stockholders, either in the short or long term. The Company expects to evaluate on an ongoing basis whether the resources dedicated to these activities are sustainable and commensurate with the potential value that can be derived from them.

Our Intellectual Property

In our historical business, we built an intellectual property portfolio relating to our prior therapeutic candidates and our SNA technology platform. We have a patent portfolio that includes pending patent applications and issued patents in the United States and in foreign countries. In the past, our portfolio included patents licensed from Northwestern University under two separate license agreements related to SNA technology, as well as owned patents. Our licenses from Northwestern University were terminated in 2023, but we continue to own numerous issued patents and pending patent applications.

As described above, we are exploring ways to generate value from our historical intellectual property. We have entered into one license agreement as described above and expect to continue to explore others. However, we do not expect these efforts to generate significant value for stockholders and expect to evaluate on an ongoing basis whether the resources dedicated to these efforts are appropriate. As part of these efforts, we may abandon or let lapse some of our patents and applications, unless any completed license agreements require us to continue to maintain such patents and applications (as is the case with the license agreement completed in February 2024).

Manufacturing and Supply

We do not currently own or operate manufacturing facilities. Following our restructuring in September 2022 (discussed above), we currently do not have any manufacturing or supply needs.

Competition

In our historical operations, we faced competition at the technology and therapeutic indication levels from both large and small biotechnology companies, academic institutions, government agencies and public and private research institutions. Many of our competitors had significantly greater financial resources and expertise in research

and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. These competitors also competed with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

Government Regulation and Product Approval

Governmental authorities in the U.S., at the federal, state and local level, and other countries extensively regulate, among other things, the research, development, testing, manufacture, labeling, packaging, promotion, storage, advertising, distribution, marketing, sales, and export and import of products such as those we historically were developing. Therapeutic candidates must be approved by the FDA through the NDA process before they may be legally marketed in the U.S. and are subject to similar requirements in other countries prior to marketing in those countries. The process of obtaining regulatory approvals and the subsequent compliance with applicable federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. Although we are no longer pursuing clinical or preclinical development activities or R&D, any third parties interested in licensing or acquiring our assets would need to comply with such regulations. If we are able to consummate any such transaction, it is possible that our ability to realize value therefrom could be dependent on the counterparty's ability to obtain necessary approvals.

Sales and Marketing

We currently do not have marketing, sales and distribution capabilities.

Employees

As of December 31, 2023, we had 6 full time employees which were engaged in finance, human resources, and general management activities after the wind down of our research and development programs. We have no collective bargaining agreement with our employees and we have not experienced any work stoppages. We consider our relations with our employees to be good.

Corporate Information

We were originally incorporated in the State of Delaware on February 6, 2017 under the name "Max-1 Acquisition Corporation." Prior to the Merger (as defined below), Max-1 was a "shell" company registered under the Securities Exchange Act of 1934, as amended, or the Exchange Act, with no specific business plan or purpose until it began operating the business of Exicure Operating Company (Exicure OpCo) through a transaction on September 26, 2017, or the Merger. Exicure OpCo was originally formed as a limited liability company under the name AuraSense Therapeutics, LLC in the State of Delaware in June 2011 and was a clinical-stage biotechnology company developing gene regulatory and immuno-oncology therapeutics based on its proprietary SNA technology. AuraSense Therapeutics, LLC was subsequently converted into AuraSense Therapeutics, Inc., a Delaware corporation, on July 9, 2015, and changed its name on the same date to Exicure, Inc. Immediately after giving effect to the Merger and the initial closing of a private placement transaction on September 26, 2017, the business of Exicure OpCo became our business.

Our corporate headquarters are located at 2430 N. Halsted St., Chicago, Illinois 60614, and our telephone number is (847) 673-1700.

Available Information

We are subject to the informational requirements of the Exchange Act, and, accordingly, file Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, with the Securities and Exchange Commission, or SEC. In addition, the SEC maintains a web site (http://www.sec.gov) that contains material regarding issuers that file electronically, such as ourselves, with the SEC.

We maintain a website at www.exicuretx.com, to which we regularly post copies of our press releases as well as additional information about us. Our filings with the SEC will be available free of charge through the website as

soon as reasonably practicable after being electronically filed with or furnished to the SEC. Information contained in our website is not a part of, nor incorporated by reference into, this Annual Report on Form 10-K or our other filings with the SEC.

Item 1A. Risk Factors.

In addition to other information contained in this Annual Report on Form 10-K, the following risks should be considered in evaluating our business and future prospects and an investment in our common stock. The risks and uncertainties described below are not the only ones we face. If any of the following risks and uncertainties develops into actual events, our business, financial condition, results of operations and cash flows could be materially adversely affected. In that case, the price of our common stock could decline and you may lose all or part of your investment.

Risks Related to Our Business

Our exploration of strategic alternatives may not be successful.

Given the Company's current focus to explore growth through strategic transactions with potential partners, the Company's ability to execute its current business plan depends on its ability to obtain additional funding via a strategic transaction or a series of strategic transactions, or to obtain funding to support such a transaction. We currently have no source of revenues or committed financing, and our financial resources are limited to our cash and cash equivalents. Substantial additional funding is needed in the very near term. With respect to our efforts to maximize value from historical assets, while those efforts are continuing, based on the interest we have received to date we do not think it is likely they will generate significant value.

The Company plans to continue actively pursuing strategic alternatives, however, there can be no assurance that the Company will have sufficient resources or obtain additional financing necessary to complete this effort. Even if we do have such resources or can obtain financing, we may not be able to consummate such a transaction in a timely manner or at all or in a manner that would not adversely impact our business. The accompanying financial statements do not include any adjustments that might result from the outcome of this uncertainty. Strategic transactions are complex and time-consuming to identify, evaluate, negotiate and consummate in compliance with applicable laws and Nasdaq requirements. Our board and management do not have meaningful experience executing this type of endeavor in the U.S. public markets. Even if we are successful in entering into a strategic transaction, the terms and conditions of that transaction may restrict us from entering into future agreements with other potential collaborators. Additionally, such strategic transactions may not be favorable to investors nor deliver any anticipated benefits by the time of business integration.

We need to obtain substantial funding in the very near term in order to continue operations and our exploration of strategic alternatives.

We require significant capital resources in order to continue to operate our business and conduct our exploration of strategic alternatives, and our very limited liquidity could materially and adversely affect our business operations. Because we have no current source of revenue or committed financing, our current available cash and cash equivalents provide us with very limited liquidity. Our existing cash and cash equivalents are not sufficient for us to continue to fund our business operations. Substantial additional funding is needed in the very near term. Any such required additional capital may not be available on reasonable terms, if at all, due to a variety of factors, including uncertainty about the future direction of the Company and investor reaction to our new controlling stockholders and board and management composition, as well as broader conditions in the economy and capital markets, including recent volatility caused by inflation, questions about bank stability and other factors. The Company has already engaged in significant cost reductions, so our ability to further cut costs and extend our operating runway is limited. Without sufficient additional capital funding in the very near term, we may be required, among other things, to seek bankruptcy protection and/or cease operations.

We may not be able to redeem the investment in convertible notes receivable.

In March 2024, the Company notified the issuer of the investment in convertible notes receivable that it was exercising its redemption right with respect to the entire principal amount of the investment in convertible notes receivable after the first anniversary of their issue dates (May 3 and May 16, 2024, respectively) for an aggregate

redemption price of $2.090 million (representing the principal amount plus 4.5% per annum yield to the redemption date).

The investment in convertible notes receivable indicate that the Company may request redemption on the first anniversary of the issue date. However, the investment in convertible notes receivable contain schedules for dates of redemption notices and redemption prices that do not contemplate a first redemption date until three months after the first anniversary of the issue dates. Although the Company believes this was a clear error and is inconsistent with the plain language that the investment in convertible notes receivable are redeemable on the first anniversary of their issue dates, the issuer has taken the position that the investment in convertible notes receivable are not redeemable until August 3, 2024 and August 16, 2024.

The Company expects to continue to seek to redeem the investment in convertible notes receivable as soon as practicable. However, there can be no assurance that the Company will be able to do so, in the near term or at all. If we are unable to redeem the investment in convertible notes receivable, or otherwise recognize value from them, it will adversely impact our financial condition and prospects.

Our controlling stockholders, executive officers and members of our board, have limited experience controlling or governing a public company operating in the United States status.

Our controlling stockholders have not previously controlled a U.S. public company. In addition, , and no members of the board or our chief executive officer or chief financial officer have experience serving as directors or management of a U.S. publicly traded company. This could make it difficult to ensure that the Company complies with all applicable laws and stock exchange requirements, maintains adequate internal and disclosure controls and appropriately assesses and manages risk. This concern is exacerbated by the limited resources the Company has following recent reductions in force, and if there are further reductions in force or members of management leave the Company, it may be very difficult to manage this risk. The transitional state of the Company and ongoing exploration of strategic alternatives also exacerbates the challenging environment in this respect. If the board of directors does not successfully or efficiently manage their roles and responsibilities, including the significant regulatory oversight and reporting obligations under the federal securities laws and the continuous scrutiny of investors, our prospects may be adversely impacted. In addition, against this backdrop, it may be difficult to earn the confidence of prospective investors or strategic partners, threatening our ability to obtain much needed financing and hindering our exploration of strategic alternatives.

Turnover of our board and senior management, and any inability to attract and retain qualified management and other key personnel, could impair our ability to implement our business plan.

As we continue our exploration of strategic alternatives, and potentially pursue transactions involving new business lines or industries, we may experience additional turnover in our board and senior management. Departures of our senior management team and board members have created, and will create if they continue, significant continuity risks and challenges to our ability to operate our business, assess and manage risks and comply with applicable laws. If key members of our senior management team depart, it will be important that we attract and retain qualified managers promptly and develop and implement an effective succession plan. We expect to face significant competition in attracting experienced executives and other key personnel, and there can be no assurance that we will be able to do so. In addition, there are significant uncertainties as to how our controlled status, transitional state of operations, financial condition and related matters will impact our ability to attract the necessary personnel and manage these succession risks. Depending on the circumstances of any management departures, it is also possible that we will be required to pay significant severance, adversely impacting our financial condition. Our urgent need to raise capital and engage with potential partners in strategic transactions magnify these risks. If we are unable to adequately address these concerns in the near term, and earn the confidence of potential investors and/or business partners, our prospects and financial condition would be adversely impacted.

Our consolidated financial statements have been prepared assuming that we will continue as a going concern.

Our ability to continue as a going concern will require us to obtain additional funding. Based on our current operating plans and existing working capital at December 31, 2023, our current liquidity is not sufficient to continue

to fund operations. As a result, there is substantial doubt about our ability to continue as a going concern. Substantial additional financing will be needed by us in the very near term to fund our operations and exploration of strategic alternatives. The perception of our ability to continue as a going concern may make it more difficult for us to obtain financing for the continuation of our operations and could result in the loss of confidence by investors and employees. Obtaining additional financing contains risks, including:

- additional equity financing may not be available to us on satisfactory terms and any equity we are able to issue could lead to dilution for current stockholders;
- loans or other debt instruments may have terms and/or conditions, such as interest rate, restrictive covenants and control or revocation provisions;
- the current environment in capital markets combined with our capital constraints may prevent us from being able to obtain adequate debt financing; and
- if we fail to obtain required additional financing to grow our business we may need to seek bankruptcy protection in the near term.

We currently do not comply with the Nasdaq continued listing requirements and have received a delisting determination notice from the Nasdaq staff. Our common stock may be delisted from Nasdaq which could negatively impact the price of our common stock, liquidity and our ability to access the capital markets.

Our common stock is currently listed on Nasdaq under the symbol "XCUR." As previously disclosed, the Company has received numerous deficiency notices with respect to various Nasdaq listing requirements in the past year and recently received a delisting determination from the Nasdaq staff. These related to:

- Compliance with Nasdaq's minimum bid price rule due to the Company's stock trading below $1.00 for a sustained period of time. The Company effected a one-for-thirty reverse stock split on June 29, 2022 in order to attempt to raise the stock price. On September 13, 2023, the Company received a delinquency notification that the closing bid price of the Company's stock traded below $1.00 for the previous 30 consecutive business days. The Company's stock price has remained below $1.00 since receipt of the notification, which must be cured by September 9, 2024, per the March 12, 2024 extension letter received from Nasdaq.
- Compliance with Nasdaq's rule requiring stockholders' equity of at least $2,500,000 based on the Company's balance sheet as of December 31, 2023. The Company believes it is in compliance with this requirement based on its December 31, 2023 balance sheet, but does not expect to be in compliance as of March 31, 2024.
- Compliance with Nasdaq's corporate governance requirements with respect to board and committee composition. The Company has received numerous deficiency notifications with respect to these requirements in the past year. Although the Company is currently in compliance, there can be no assurance it will remain in compliance.
- Compliance with Nasdaq's requirement to hold an annual meeting. On January 11, 2024, Nasdaq notified the Company that it did not comply with listing requirements by not holding an annual meeting in 2023. The Company received an extension letter on March 12, 2024 from Nasdaq noting it must hold its annual meeting by June 28, 2024.
- On November 22, 2023, the Company received a delinquency notification as it had not filed its third quarter Form 10-Q at the deadline, which was cured by filing of such Form 10-Q on May 16, 2024.
- On April 17, 2024, the Company received a delinquency notification as it had not filed its Annual Report Form 10-K for the year ended December 31, 2023. The extended deadline for compliance was established by Nasdaq at May 20, 2024, the same deadline for our Form 10-Q for the quarter ended September 30, 2023, which had yet to be filed at the time.

- Although the Company filed its Form 10-Q for the quarter ended September 30, 2023 prior to the extended deadline of May 20, 2024, on May 21, 2024, the Company received a delisting determination from the Nasdaq staff as a result of not filing its Annual Report Form 10-K by the May 20, 2024 deadline and failure to timely file its Form 10-Q for the period ended March 31, 2024. The staff's delisting determination also noted the failure to hold its 2023 annual meeting as another basis of the delisting determination.
- On May 28, 2024, the Company requested an appeal of the delisting determination to Nasdaq's hearings panel. A hearing has been scheduled for July 9, 2024. In connection with its request for an appeal, the Company also requested an extended stay on the suspension of trading in the Company's common stock through the decision of the hearings panel. If the extended stay is not granted, the automatic stay would only be in place for 15 calendar days from the May 28 appeal request.

We may not be successful in our appeal or be able to regain compliance with Nasdaq's listing requirements and our failure to do so may resulted in the delisting of our Common Stock by Nasdaq's. Even if the Company is successful in our appeal and regains compliance with Nasdaq's listing requirements and addresses the outstanding deficiency notices to Nasdaq's satisfaction, there can be no assurance that the Company will remain in compliance with Nasdaq's requirements and will not be delisted in the future.

If Nasdaq suspends or delists our securities from trading on its exchange for failure to meet the listing standards, we and our stockholders could face significant negative consequences including:

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

Suspension or delisting from Nasdaq could also result in other negative consequences, including the potential loss of institutional investor interest and make obtaining new financing much more challenging. In addition, fewer strategic opportunities may be available, particularly from counterparties that are interested in combining with a listed company.

We have a history of losses. We expect to continue to incur significant losses for the foreseeable future and may never achieve or maintain profitability, which could result in a decline in the market value of our common stock.

Since our inception in June 2011, we have devoted our resources to the development of SNA technology, and are currently exploring out-licensing opportunities and strategic alternatives to maximize stockholder value. We have had significant operating losses since our inception. As of December 31, 2023, we have generated an accumulated deficit of $208.4 million, including $18,837 of additional paid-in capital reclassed to accumulated deficit upon C-corporation conversion,. For the years ended December 31, 2023 and 2022, our net loss was $16.9 million and $2.6 million, respectively. Substantially all of our losses have resulted from expenses incurred in connection with our research programs and from general and administrative costs associated with our operations.

We have not generated, and do not expect to generate, any product revenue for the foreseeable future and currently have no source of revenue or committed financing, and we expect to continue to incur significant operating losses for the foreseeable future. The amount of future losses is uncertain. Our future financial performance and condition are substantially dependent on the results of our ongoing exploration of strategic alternatives, and we cannot predict whether we will be successful.

We are pursuing asset out-licenses, asset sales and similar strategic transactions with respect to our historical assets. There can be no assurance that we will be successful in executing such a strategic transaction and at this point we do not expect these efforts to generate significant value for our stockholders.

Our internal computer systems, or those of contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of our therapeutic development programs.

Despite the implementation of security measures, our internal computer systems and those of our contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. Such events could cause interruptions of our operations. For instance, theft or other exposure of data may interfere with our ability to protect our intellectual property, trade secrets, and other information critical to our operations. We can provide no assurances that certain sensitive and proprietary information relating to one or more of our therapeutic candidates has not been, or will not in the future be, compromised. Although we have invested resources to enhance the security of our computer systems, there can be no assurances we will not experience additional unauthorized intrusions into our computer systems, or those of our contractors and consultants, that we will successfully detect future unauthorized intrusions in a timely manner, or that future unauthorized intrusions will not result in material adverse effects on our financial condition, reputation, or business prospects. Payments related to the elimination of ransomware may materially affect our financial condition and results of operations.

To the extent that any disruption or security breach were to result in a loss of, or damage to, our data, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the development of our therapeutic candidates could be delayed.

Our information technology systems could face serious disruptions that could adversely affect our business.

Our information technology and other internal infrastructure systems, including corporate firewalls, servers, documents storage systems, backup systems, leased lines and connection to the Internet, face the risk of systemic failure that could disrupt our operations. A significant disruption in the availability of our information technology and other internal infrastructure systems could cause interruptions and delays in our operations.

Our business and operations could suffer in the event of system failures or unauthorized or inappropriate use of or access to our information technology systems.

We are increasingly dependent on our information technology systems and infrastructure for our business. We collect, store and transmit sensitive information including intellectual property, proprietary business information and personal information in connection with business operations. The secure maintenance of this information is critical to our operations and business strategy. Some of this information could be an attractive target of criminal attack or unauthorized access and use by third parties with a wide range of motives and expertise, including organized criminal groups, “hacktivists,” patient groups, disgruntled current or former employees and others. Cyber-attacks are of ever-increasing levels of sophistication, and despite our security measures, our information technology systems and infrastructure may be vulnerable to such attacks or may be breached, including due to employee error or malfeasance.

The pervasiveness of cybersecurity incidents in general and the risks of cyber-crime are complex and continue to evolve. Although we are making significant efforts to maintain the security and integrity of our information systems and are exploring various measures to manage the risk of a security breach or disruption, there can be no assurance that our security efforts and measures will be effective or that attempted security breaches or disruptions would not be successful or damaging. Despite the implementation of security measures, our internal computer systems and those of our employees, contractors and consultants are vulnerable to damage or interruption from computer viruses, unauthorized or inappropriate access or use, natural disasters, pandemics (including COVID-19), terrorism, war, and telecommunication and electrical failures. Such events could cause interruption of our operations. For example, the loss or compromise of preclinical data for our therapeutic candidates could result in delays in our regulatory filings and development efforts, as well as delays in the commercialization of our products, and significantly increase our costs. To the extent that any disruption, security breach or unauthorized or inappropriate use or access to our systems were to result in a loss of or damage to our data, or inappropriate disclosure of confidential or proprietary information, including but not limited to patient, employee or vendor information, we could incur notification obligations to affected individuals and government agencies, liability, including potential lawsuits from patients, collaborators, employees, stockholders or other third parties and liability

under foreign, federal and state laws that protect the privacy and security of personal information, and the development and potential commercialization of our therapeutic candidates could be delayed. Existing insurance arrangements may not provide protection for the costs that may arise from such loss or damage. Any long-term disruption in our ability to access our information technology systems could have a material adverse effect on our operations, our business, results of operations and stock price.

Our current operations are concentrated in one location and any events affecting this location may have material adverse consequences.

Our current operations are located in our facilities situated in Chicago, Illinois. Any unplanned event, such as flood, fire, explosion, earthquake, extreme weather condition, medical epidemics, power shortage, telecommunication failure or other natural or man-made accidents or incidents that result in us being unable to fully utilize the facilities, may have a material adverse effect on our ability to operate our business, particularly on a daily basis, and have significant negative consequences on our financial and operating conditions. Loss of access to these facilities may result in increased costs, delays in the development of our therapeutic candidates or interruption of our business operations. As part of our risk management policy, we maintain insurance coverage at levels that we believe are appropriate for our business. However, in the event of an accident or incident at these facilities, we cannot assure you that the amounts of insurance will be sufficient to satisfy any damages and losses. If our facilities are unable to operate because of an accident or incident or for any other reason, even for a short period of time, any or all of our research and development programs may be harmed. Any business interruption may have a material adverse effect on our business, financial position, results of operations and prospects.

If we fail to maintain proper and effective internal controls, our ability to produce accurate financial statements on a timely basis could be impaired.

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, the Sarbanes-Oxley Act of 2002, or Sarbanes-Oxley Act, and the rules and regulations of The Nasdaq Capital Market. Pursuant to Section 404 of the Sarbanes-Oxley Act, or Section 404, we are required to perform system and process evaluation and testing of our internal control over financial reporting to allow our management to report on the effectiveness of our internal control over financial reporting. However, while we remain a non-accelerated filer, we will not be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm.

During the evaluation and testing process, we identified material weaknesses as described under Part II, Item 9 of this Form 10-K. If we fail to remediate that material weakness, or if we identify one or more material weaknesses in our internal control over financial reporting, we will be unable to assert that our internal control over financial reporting is effective. Further, we may in the future discover weaknesses in our system of internal financial and accounting controls and procedures that could result in a material misstatement of our financial statements. Moreover, our internal controls over financial reporting will not prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected. Moreover, we are aware that the remote working arrangements implemented in connection with the COVID-19 pandemic potentially present new areas of risk, and we continue to carefully monitor any impact to our internal controls and procedures.

Our limited resources and recent reductions in force, as well as the turnover in our board of directors and the potential for future management changes, present significant continuity risk and could impact our ability to maintain effective internal control over financial reporting.

If we are unable to assert that our internal control over financial reporting is effective, investors could lose confidence in the reliability of our financial statements, the market price of our stock could decline and we could be subject to sanctions or investigations by The Nasdaq Capital Market, the SEC or other regulatory authorities.

The restatement of our prior quarterly financial statements may affect stockholder and investor confidence in us or harm our reputation, and may subject us to additional risks and uncertainties, including increased costs and the increased possibility of legal proceedings and regulatory inquiries, sanctions or investigations.

Management identified material weaknesses in the Company's internal control over financial reporting and restated its first quarter and second quarter unaudited interim condensed consolidated via Forms 10-Q/A. As a result of the restatement, we have incurred, and may continue to incur, unanticipated costs for accounting and legal fees in connection with, or related to, such restatement. In addition, such restatement could subject us to a number of additional risks and uncertainties, including the increased possibility of legal proceedings and inquiries, sanctions or investigations by the SEC or other regulatory authorities. Any of the foregoing may adversely affect our reputation, the accuracy and timing of our financial reporting, or our business, results of operations, liquidity and financial condition, or cause stockholders, investors, members and customers to lose confidence in the accuracy and completeness of our financial reports or cause the market price of our common stock to decline.

Risks Related to Intellectual Property

We, or any current or future strategic partners or licensors, may become subject to third-party claims or litigation alleging infringement of patents or other proprietary rights or seeking to invalidate patents or other proprietary rights, and we may need to resort to litigation to protect or enforce our patents or other proprietary rights, all of which could be costly, time consuming, delay or prevent the development and commercialization of our therapeutic candidates, or put our patents and other proprietary rights at risk.

We or our licensors, or any current or future strategic partners, may be subject to third-party claims for infringement or misappropriation of patent or other proprietary rights. We are generally obligated under our license agreements to indemnify and hold harmless our licensors for damages arising from intellectual property infringement by us. If we or our licensors, or any current or future strategic partners, are found to infringe a third-party patent or other intellectual property rights, we could be required to pay damages, potentially including treble damages, if we are found to have willfully infringed. In addition, we or our licensors, or any current or future strategic partners, may choose to seek, or be required to seek, a license from a third-party, which may not be available on acceptable terms, if at all. Even if a license can be obtained on acceptable terms, the rights may be non-exclusive, which could give our competitors access to the same technology or intellectual property rights licensed to us. If we fail to obtain a required license, we or any current or future collaborator may be unable to effectively market therapeutic candidates based on our technology, which could limit our ability to generate revenue or achieve profitability and possibly prevent us from generating revenue sufficient to sustain our operations. In addition, we may find it necessary to pursue claims or initiate lawsuits to protect or enforce our patent or other intellectual property rights. The cost to us in defending or initiating any litigation or other proceeding relating to patent or other proprietary rights, even if resolved in our favor, could be substantial, and litigation would divert our management's attention. Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could delay our research and development efforts and limit our ability to continue our operations.

If we were to initiate legal proceedings against a third-party to enforce a patent covering one of our therapeutics or our technology, the defendant could counterclaim that our patent is invalid or unenforceable. In patent litigation in the U.S., defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, for example, lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. The outcome following legal assertions of invalidity and unenforceability during patent litigation is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection on one or more of our therapeutics or certain aspects of our technology. Such a loss of patent protection could have a material adverse impact on our business. Patents and other intellectual property rights also

will not protect our technology if competitors design around our protected technology without legally infringing our patents or other intellectual property rights.

It is also possible that we have failed to identify relevant third-party patents or applications. For example, U.S. applications filed before November 29, 2000 and certain U.S. applications filed after that date that will not be filed outside the U.S. remain confidential until patents issue. Patent applications in the U.S. and elsewhere are published approximately 18 months after the earliest filing for which priority is claimed, with such earliest filing date being commonly referred to as the priority date. Therefore, patent applications covering our therapeutics or technology could have been filed by others without our knowledge. Additionally, pending patent applications which have been published can, subject to certain limitations, be later amended in a manner that could cover our SNA technology, our therapeutics or the use of our therapeutics. Third-party intellectual property right holders may also actively bring infringement claims against us. We cannot guarantee that we will be able to successfully settle or otherwise resolve such infringement claims. If we are unable to successfully settle future claims on terms acceptable to us, we may be required to engage in or continue costly, unpredictable and time-consuming litigation and may be prevented from or experience substantial delays in marketing our therapeutics. If we fail in any such dispute, in addition to being forced to pay damages, we may be temporarily or permanently prohibited from commercializing any of our therapeutic candidates that are held to be infringing. We might, if possible, also be forced to redesign therapeutic candidates so that we no longer infringe the third-party intellectual property rights. Any of these events, even if we were ultimately to prevail, could require us to divert substantial financial and management resources that we would otherwise be able to devote to our business.

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

We may also be subject to claims that former employees or other third parties have an ownership interest in our patents or other intellectual property. Litigation may be necessary to defend against these and other claims challenging inventorship or ownership. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and distraction to management and other employees.

Risks Related to Government Regulation

We are subject to European data protection laws, including the European Union's General Data Protection Regulation 2016/679, or GDPR. If we fail to comply with existing or future data protection regulations, our business, financial condition, results of operations and prospects may be materially adversely affected.

By virtue of our prior clinical trial activities in the United Kingdom and Europe, we are subject to European data protection laws, including the GDPR. The GDPR which came into effect on May 25, 2018, establishes new requirements applicable to the processing of personal data (i.e., data which identifies an individual or from which an individual is identifiable), affords new data protection rights to individuals (e.g., the right to erasure of personal data) and imposes penalties for serious breaches of up to 4% annual worldwide turnover or €20 million, whichever is greater. Individuals (e.g., study subjects) also have a right to compensation for financial or non-financial losses (e.g., distress). There may be circumstances under which a failure to comply with the GDPR, or the exercise of individual rights under the GDPR, would limit our ability to utilize clinical trial data collected on certain subjects. The GDPR imposes additional responsibility and liability in relation to our processing of personal data. This may be onerous and we may be unsuccessful in implementing all measures required by data protection authorities or courts in interpretation of the GDPR, which may materially adversely affect our business, financial condition, results of operations and prospects.

Risks Related to Ownership of Our Common Stock

The influence of our significant stockholders could make our Common Stock less attractive to some investors or otherwise harm the trading price of our Common Stock.

CBI USA and DGP collectively own approximately 45% of outstanding Common Stock and exercise significant influence over us. We previously had been a "controlled company" under the corporate governance rules for Nasdaq-listed companies and still do not have a majority independent board based on the phase-in requirements for companies after they lose "controlled company" status. Members of our board and management are directly affiliated with CBI and DGP. Investors may be hesitant to invest in the Company given the influence of CBI and DGP. In addition, should the interest or interests of our controlling stockholders differ from those of other stockholders, the other stockholders may not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance rules for Nasdaq-listed companies.

Additionally, it is possible we could pursue strategic or financing transactions with our controlling stockholders or their affiliates. The interests of the controlling stockholders and other stockholders would diverge in this case, and the lack of an independent board to evaluate such a transaction could adversely impact other stockholders. These conflicts of interest (or the perception that they could occur) might adversely affect our business and prospects for obtaining financing or completing a strategic transaction.

For so long as CBI USA and DGP own a significant stake, they (and/or their transferees) will have substantial control over the elections of our directors and to approve any other corporate action requiring the affirmative vote of holders of a majority of the outstanding shares of our Common Stock. This could deter investment in the Company and adversely impact our stock price and ability to obtain financing. These impacts may be more pronounced in the near term as investors assess the direction of the Company under the control of CBI USA and DGP and the actions of the new board and management. DGP's recently announced agreement to sell its shares to a third party could also deter investment as it creates uncertainty as to the transferee's intentions with respect to the Company. If DGP's sale is completed, the third party transferee would become the Company's largest stockholder.

Potential partners considering engaging in a strategic transaction with the Company could have similar concerns. Given our urgent need for additional funding and/or to complete a strategic transaction, it is imperative that our controlling stockholders and our board and management earn the confidence of investors and potential partners in the near term and there is no assurance this will occur.

The market price of our common stock has been, and is likely to continue to be, highly volatile, and you may not be able to resell your shares at or above the price you paid for them.

Our stock price will continue to be volatile. As a result of this volatility, investors may not be able to sell their common stock at or above the price paid for the shares. The market price for our common stock may be influenced by a variety of factors, including the other risks described in this section titled "Risk Factors" and the following:

- our ability or inability to raise additional capital and the terms on which we raise it;
- the development, execution and announcement of any proposed strategic alternative;
- investors may react negatively to our controlled status and the influence of our controlling stockholder or our reconstituted board and/or our uncertain business strategy;
- strategic decisions by us or our competitors, such as acquisitions, divestitures, spin-offs, joint ventures, strategic investments or changes in business strategy;
- we are unable to achieve the perceived benefits of our Company as rapidly or to the extent anticipated by financial or industry analysts; and
- changes in general economic, industry, political and market conditions, including, but not limited to, the ongoing impact of the COVID-19 pandemic.

- our ability to avoid suspension and/or delisting of our common stock by Nasdaq.

In addition, the stock markets in general, and the markets for pharmaceutical and biotechnology stocks in particular, have experienced extreme volatility that has been often unrelated to the operating performance of the issuer. These broad market and industry factors, such as those related to the COVID-19 pandemic, Russia's invasion of Ukraine, and the Israel/Hamas war and retaliatory actions taken by the United States, NATO and others, may seriously harm the market price of our common stock, regardless of our operating performance.

Raising additional funds by issuing securities may cause dilution to existing stockholders and raising funds through lending and licensing arrangements may restrict our operations or require us to relinquish proprietary rights.

Until such time, if ever, as we can generate substantial revenues, we expect to attempt to finance our cash needs through a combination of equity offerings and debt financings. As discussed elsewhere, it may be very challenging to obtain equity or debt financing given the current transitional state of the Company. However, to the extent that we raise additional capital through the issuance of shares or other securities convertible into shares, our stockholders will be diluted. Future issuances of our common stock or other equity securities, or the perception that such sales may occur, could adversely affect the prevailing market price of our common stock and impair our ability to raise capital through future offerings of equity or equity-linked securities.

We cannot be certain if the reduced reporting requirements applicable to us will make our common stock less attractive to investors.

We were an "emerging growth company" as defined in the JOBS Act until December 31,2023. As such, we took advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including (1) not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, (2) reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and (3) exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. In addition, as an emerging growth company, we were only required to provide two years of audited financial statements. Even though we no longer qualify as an emerging growth company, we still qualify as a "smaller reporting company" and a "non-accelerated filer" which allows us to continue to take advantage of many of the same exemptions from disclosure requirements including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our share price may be more volatile.

Anti-takeover provisions in our charter documents and under the General Corporation Law of the State of Delaware could make an acquisition of us more difficult and may prevent attempts by our stockholders to replace or remove our management.

Provisions in our amended and restated certificate of incorporation and our bylaws may delay or prevent an acquisition of us or a change in our management. These provisions include a classified board of directors, a prohibition on actions by written consent of our stockholders, and the ability of the Board of Directors of the Company, or the Board, to issue preferred stock without stockholder approval. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, or DGCL, which prohibits stockholders owning in excess of 15% of the outstanding combined organization voting stock from merging or combining with the combined organization. Although we believe these provisions collectively will provide for an opportunity to receive higher bids by requiring potential acquirers to negotiate with our Board, they would apply even if the offer may be considered beneficial by some stockholders. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove then-current management by making it more difficult for stockholders to replace members of the Board, which is responsible for appointing the members of management.

Our amended and restated certificate of incorporation designates the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or agents.

Our amended and restated certificate of incorporation provides that, unless we consent in writing to an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for any of the following types of actions or proceedings under Delaware statutory or common law: derivative action or proceeding brought on our behalf, any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, employees or agents to us or our stockholders, any action asserting a claim arising pursuant to any provision of the DGCL, our amended and restated certificate of incorporation or our amended and restated bylaws or any action asserting a claim that is governed by the internal affairs doctrine, in each case subject to the Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein. This provision would not apply to suits brought to enforce a duty or liability created by the Securities Exchange Act of 1934, as amended, or any other claims for which a court or forum other than the Court of Chancery has exclusive jurisdiction or for which the Court of Chancery does not have subject matter jurisdiction. Furthermore, Section 22 of the Securities Act of 1933, as amended, or the Securities Act, creates concurrent jurisdiction for federal and state courts over all Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims. Our amended and restated certificate of incorporation also provides that any person purchasing or otherwise acquiring any interest in any shares of our common stock shall be deemed to have notice of and to have consented to this provision of our amended and restated certificate of incorporation.

This choice of forum provision may limit our stockholders' ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, employees or agents, which may discourage such lawsuits against us and our directors, officers, employees and agents even though an action, if successful, might benefit our stockholders. Stockholders who do bring a claim in the Court of Chancery could face additional litigation costs in pursuing any such claim, particularly if they do not reside in or near Delaware. The Court of Chancery may also reach different judgments or results than would other courts, including courts where a stockholder considering an action may be located or would otherwise choose to bring the action, and such judgments or results may be more favorable to us than to our stockholders. If a court were to find this exclusive forum provision in our amended and restated certificate of incorporation to be inapplicable or unenforceable in any action, we may incur further significant additional costs associated with resolving the dispute in other jurisdictions, all of which could have a material adverse effect on our business, financial condition or results of operations.

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

We have incurred substantial losses during our history and do not expect to be profitable in the near future, if ever. Our net operating loss, or NOL, carryforwards generated in tax years beginning on or before December 31, 2017, are only permitted to be carried forward for 20 years under applicable U.S. tax law. Under the Tax Cuts and Jobs Act, as modified by the CARES Act, our federal NOLs generated in tax years beginning after December 31, 2017, may be carried forward indefinitely, but the deductibility of such federal NOLs is be limited to 80% of taxable income. In addition, under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, and corresponding provisions of state law, if a corporation undergoes an "ownership change," generally defined as a greater than 50% change (by value) in its equity ownership over a three-year period, the corporation's ability to use its pre-change NOL, and other pre-change tax attributes (such as research tax credits) to offset its post-change income or taxes may be limited. We have experienced ownership changes in the past. We completed a review of our changes in ownership through December 31, 2022 and determined that we experienced an "ownership change" within the meaning of Section 382(g) during the fourth quarter of 2022. This ownership change has and will continue to subject our net operating loss carryforwards to an annual limitation, which will significantly restrict our ability to use them to offset our taxable income in periods following the ownership change.

We determined that at the date of the 2022 ownership change, we had a net unrealized built-in loss ("NUBIL"). The NUBIL was determined based on the difference between the fair market value of our assets and their tax basis at the ownership change date. Because of the NUBIL, certain deductions recognized during the five-year period

beginning on the date of the IRC Section 382 ownership change (the "recognition period") are subject to the same limitation as the net operating loss carryforwards or certain other deductions.

As of December 31, 2023, we determined that we ceased operations of our historical business enterprise which subjects us to a zero limitation as defined under IRC Section 382(c). Therefore, we are restricted in our ability to use any of the historical net operating losses that occurred before the most recent ownership change in the 4th quarter of 2022.

General Risk Factors

FINRA sales practice requirements may limit a stockholder's ability to buy and sell our stock due to our low stock price.

The Financial Industry Regulatory Authority, or FINRA, has adopted rules requiring that, in recommending an investment to a customer, a broker-dealer must have reasonable grounds for believing that the investment is suitable for that customer. Prior to recommending speculative or low-priced securities to their non-institutional customers, broker-dealers must make reasonable efforts to obtain information about the customer's financial status, tax status, investment objectives and other information. Under interpretations of these rules, FINRA has indicated its belief that there is a high probability that speculative or low-priced securities will not be suitable for at least some customers. If these FINRA requirements are applicable to us or our securities, which we believe they are, they may make it more difficult for broker-dealers to recommend that at least some of their customers buy our common stock, which may limit the ability of our stockholders to buy and sell our common stock and could have an adverse effect on the market for and price of our common stock.

If securities or industry analysts do not publish research or reports about our business, or if they issue an adverse or misleading opinion regarding our stock, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. Our research coverage by securities and industry analysts is currently limited. In addition, because we did not become a reporting company by conducting an underwritten initial public offering of our common stock, security analysts of brokerage firms may not provide wider coverage of our Company. In addition, investment banks may be less likely to agree to underwrite secondary offerings on our behalf than they might if we became a public reporting company by means of an underwritten initial public offering, because they may be less familiar with our Company as a result of more limited coverage by analysts and the media, and because we became public at an early stage in our development. The failure to receive wider research coverage or support in the market for our shares will have an adverse effect on our ability to develop a liquid market for our common stock and the trading price for our stock would be negatively impacted.

In the event we obtain wider securities or industry analyst coverage, if any of the analysts who cover us issue an adverse or misleading opinion regarding us, our business model, our intellectual property or our stock performance, or if our target studies and operating results fail to meet the expectations of analysts, our stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

Item 1B. Unresolved Staff Comments.

None.

Item 1C. Cybersecurity.

Our management recognize the importance of maintaining the security and resiliency of our cybersecurity environment to deliver on the expectations of our employees and investors. Overall, the purpose of our information security program is to protect the confidentiality, integrity and availability of our systems and data, along with the safe operation of our systems. Our current processes are limited and reflect the transitional state of our business and lack of resources. If and when our business evolves and we obtain additional resources, we would expect to adapt our processes accordingly.

Technical safeguards

We deploy technical safeguards that are designed to protect our systems from cybersecurity threats, including firewalls, anti-malware software, and authentication and authorization controls.

Third parties

We do not currently engage third parties with respect to our cybersecurity risk management processes due to our limited resources and operations.

Governance of Cybersecurity Risks

Pursuant to its charter, the Audit Committee of the Board has the primary responsibility for oversight and review of guidelines and policies with respect to risk assessment and risk management, including cybersecurity. The Company's Chief Executive Officer, President, and Chief Financial Officer are responsible for assessing and managing cybersecurity risks. Given our currently limited resources, we do not have dedicated personnel with specific cybersecurity expertise. When appropriate, the Company's management will report on cybersecurity issues and presents information to our Audit Committee and/or our full Board on cybersecurity matters.

Material Impact of Cybersecurity Risks

We have not experienced a material cybersecurity incident, and we are not aware of any cybersecurity risks that are reasonably likely to materially affect our business. However, future incidents could have a material impact on our business strategy, results of operations or financial condition.

Item 2. Properties.

Our corporate headquarters are located in Chicago, Illinois, where we lease approximately 30,000 square feet of space (the "Chicago Lease"). The Chicago Lease commenced on July 1, 2020, and expires on July 1, 2030. During 2023, we subleased approximately 57% of the space through the expiration date.

We believe that this space is sufficient to meet our needs for the foreseeable future and that any additional or alternative space we may require will be available in the future on commercially reasonable terms.

Item 3. Legal Proceedings.

On December 13, 2021, Mark Colwell filed a putative securities class action lawsuit against the Company, David A. Giljohann and Brian C. Bock in the United States District Court for the Northern District of Illinois, captioned Colwell v. Exicure, Inc. et al., Case No. 1:21-cv-0663. On February 4, 2021, plaintiff filed an amended putative securities class action complaint. On March 20, 2023, the court entered an order appointing James Mathew as lead plaintiff and Bleichmar Fonti & Auld LLP as lead counsel in the action pursuant to the Private Securities Litigation Reform Act of 1995. On May 26, 2023, lead plaintiff filed a second amended complaint against the Company, Dr. Giljohann, Mr. Bock, and Grant Corbett. The second amended complaint alleges that Dr. Giljohann, Mr. Bock, and Dr. Corbett made materially false and/or misleading statements related to the Company's clinical programs purportedly causing losses to investors who acquired Company securities between January 7, 2021 and December 10, 2021. The second amended complaint does not quantify any alleged damages but, in addition to

attorneys' fees and costs, lead plaintiff seeks to recover damages on behalf of himself and others who acquired the Company's stock during the putative class period at allegedly inflated prices and purportedly suffered financial harm as a result. The parties filed a joint status report noting the mediation efforts taken by the parties. The report also proposes a litigation schedule going forward, which the Court adopted: plaintiff's third amended complaint is due on or before June 28, 2024, and any motion to dismiss is due on or before August 27, 2024, with response due on or before October 8, 2024 and any reply due on or before November 5, 2024. Accordingly, the status hearing set for May 22, 2024is reset to July 23, 2024.

On March 1, 2022, Kapil Puri filed a shareholder derivative lawsuit on behalf of the Company in the United States District Court for the Northern District of Illinois, against Dr. Giljohann and Mr. Bock, Jeffrey L. Cleland, Elizabeth Garofalo, Bosun Hau, Bali Muralidhar, Andrew Sassine, Matthias Schroff, James Sulat and Timothy Walbert, captioned Puri v. Giljohann, et al., Case No. 1:22-cv-01083. On March 8, 2022, Yixin Sim filed a similar shareholder derivative lawsuit in the same court against the same individuals, captioned Sim v. Giljohann, et al., Case No. 1:22-cv-01217. On April 25,2022, Stourbridge Investments LLC filed a similar shareholder derivative lawsuit against the same individuals in the United States District Court for the District of Delaware, captioned Stourbridge Investments LLC v. Exicure, Inc. et al., Case No. 1:22-cv-00526. Based on similar factual allegations presented in the Colwell complaint, described above, the Puri, Sim, and Stourbridge complaints (collectively, the "Derivative Complaints") allege that the defendants caused the Company to issue false and/or misleading statements in the proxy statement for its 2021 Annual Meeting of Stockholders regarding risk oversight, code of conduct, clinical program and compensation matters, among other things, in violation of federal securities law, and committed breaches of fiduciary duties. The Derivative Complaints also assert that Dr. Giljohann and Mr. Bock are liable for contribution under the federal securities laws. The Puri and Stourbridge complaints further assert state law claims for unjust enrichment, and the Puri complaint additionally asserts state law claims for abuse of control, gross mismanagement and corporate waste. The plaintiffs do not quantify any alleged damages in the Derivative Complaints, but seek restitution for damages to the Company, attorneys' fees, costs, and expenses, as well as an order directing that certain proposals for strengthening board oversight be put to a vote of the Company's shareholders.

On March 18, 2022, James McNabb, through counsel, sent a written demand to the Company (the "Demand Letter") demanding that the Board of Directors investigate certain allegations and commence proceedings on the Company's behalf against certain of the Company's current officers and directors for alleged breaches of fiduciary duties and corporate waste. All of the Derivative Cases have been stayed pending a decision on any motion to dismiss that may be filed in the Colwell case. Further, pursuant to agreement, the Demand Letter is being held in abeyance and any related statute of limitations tolled pending such motion and decision.

On October 3, 2023, a former employee filed a complaint against the Company and its executives related to the former employee's separation from the Company in August. The parties will proceed with paper discovery and an in-person settlement conference is scheduled for June 26, 2024.

We may also be a party to litigation and subject to claims incident to the ordinary course of business. Although the results of litigation and claims cannot be predicted with certainty, we currently believe that the final outcome of these ordinary course matters will not have a material adverse effect on our business. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market For Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases.

Market Information

Our common stock was approved for listing on the Nasdaq Capital Market under the symbol “XCUR” and began trading on July 31, 2019. As disclosed elsewhere in this Report, we are currently in the process of appealing a delisting determination by the Nasdaq staff and there can be no assurance our common stock will remain trading and listed on Nasdaq.

On May 31, 2024, the last reported sale price of our common stock on Nasdaq was $0.44 per share.

Holders of Record

As of May 31, 2024, we had 8,651,148 shares of common stock outstanding held by 65 stockholders of record, one of which is Cede & Co., a nominee for Depository Trust Company, or DTC. All of the shares of common stock held by brokerage firms, banks and other financial institutions as nominees for beneficial owners are deposited into participant accounts at DTC, and are considered to be held of record by Cede & Co. as one stockholder.

Dividend Policy

We currently intend to retain future earnings, if any, for use in the operation of our business and to fund future growth. We have never declared or paid cash dividends on our common stock and we do not intend to pay any cash dividends on our common stock for the foreseeable future. Any future determination related to our dividend policy will be made at the discretion of our board of directors in light of conditions then-existing, including factors such as our results of operations, financial condition and requirements, business conditions and covenants under any applicable contractual arrangements.

Securities Authorized for Issuance under Equity Compensation Plans

Information about our equity compensation plans is incorporated herein by reference to Part III, Item 12 of this Annual Report**.**

Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 6. RESERVED.

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

You should read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements and the related notes and other financial information included elsewhere in this Annual Report on Form 10-K. Some of the information contained in this discussion and analysis or set forth elsewhere in this Annual Report on Form 10-K, including information with respect to our plans and strategy for our business, includes forward-looking statements that involve risks and uncertainties as described under the heading "Cautionary Note Regarding Forward-Looking Statements" elsewhere in this Annual Report on Form 10-K. You should review the disclosure under the heading "Risk Factors" in this Annual Report on Form 10-K for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

Historically, we have been an early-stage biotechnology company focused on developing nucleic acid therapies targeting ribonucleic acid against validated targets. In September 2022, we announced a significant reduction in force, suspension of preclinical activities and halting of all research and development, and that we were exploring strategic alternatives to maximize stockholder value. While the foregoing efforts are continuing, with respect to our historical assets, we do not expect they will generate significant value for stockholders. For example, in February 2024, we announced a licensing deal for patents related to one of our historical drug candidates, and received a small, one-time payment and an entitlement to only modest royalties on future sales of the licensed technology that we do not believe will be material. Therefore, we are engaging in a broader exploration of strategic alternatives. This effort involves exploring growth through transactions with potential partners that see opportunity in joining an existing, publicly-traded organization. We are exploring transactions in industries unrelated to our historical operations.

Because we currently have no source of revenue or committed financing, we will require substantial additional funding in the very near term in order to satisfy our existing obligations, continue to operate and continue our exploration of strategic alternatives and consummate any transactions that we may identify.

Operating, financing, and cash flow considerations

Since our inception in 2011, we have primarily funded our operations through sales of our securities, loans and collaborations. On February 24, 2023, we raised gross proceeds of $5.4 million on the closing of the Private Placement (as defined below) (or net proceeds of approximately $4.6 million after transaction expenses). However, we have used these net proceeds for our 2023 operation expenses (i.e. severance payments, warrant put payments, investment in convertible notes receivable, and general working capital purposes as we pursue strategic alternatives).

As of December 31, 2023, our cash and cash equivalents cash were $0.8 million. We had approximately $1.6 million in accounts payable as of December 31, 2023, as we deferred payments due to our deteriorating financial condition late in 2023. Subsequent to December 31, 2023, our cash and cash equivalents have decreased to approximately $0.2 million as of May 31, 2024. Although we are attempting to redeem the $2.0 million aggregate principal amount of our convertible notes receivable, there can be no assurance that we will be able to do so, in the near term or at all. See "Risk Factors – We may not be able to redeem the investment in convertible notes receivable."

Our current liquidity is not sufficient to fund operations. As a result, there is substantial doubt about our ability to continue as a going concern. Substantial additional financing will be needed in the very near term to fund our existing obligation, operations and exploration of strategic alternatives and pursue any alternatives that we identify. If we are unable to raise capital, the Company could seek bankruptcy protection and/or cease operations in the near term, which may result in the Company's stockholders receiving no or very little value in respect of their shares of the Company's common stock.

We expect to seek financing through equity offerings. However, it may be difficult to obtain financing given the Company's current condition and uncertainty over its future direction. Therefore, we may be unable to raise capital

at all or on favorable terms. Our failure to raise capital or enter into such other arrangements as and when needed would have a negative impact on our financial condition and our ability to continue operations.

Recent Developments

Restructuring

On September 26, 2022, we announced our commitment to a plan to wind down our existing preclinical programs, including the development of our SCN9A program, to suspend all of our research and development ("R&D") activities, including suspension of all partnered programs, and to implement a reduction in force whereby we reduced approximately 66% of our then-existing workforce, as well as other cost-cutting measures (collectively, the "Plan"). The purpose of the Plan was to decrease expenses, thereby, extending our cash runway, and enable us to maintain a streamlined organization to support key corporate functions.

Change of Control

On September 26, 2022, the Company entered into a securities purchase agreement (the "Securities Purchase Agreement") with CBI USA, Inc. ("CBI USA"), pursuant to which the Company agreed to issue and sell to CBI USA in a private placement an aggregate of 3,400,000 shares of Common Stock, at a purchase price of $1.60 per share. The private placement closed on February 24, 2023 (the "Closing Date").

CBI USA funded the acquisition pursuant to the Securities Purchase Agreement through a loan from its affiliate, DGP Co., Ltd. ("DGP"). On June 23, 2023, DGP exercised its the option pursuant to the loan and acquired the 3,400,000 shares of Common Stock initially acquired by CBI USA pursuant to the Securities Purchase Agreement. DGP subsequently agreed to sell its shares to a third party, with the closing of 10% (340,000 shares) occurring in February 2024 and the remainder to close by or on June 30, 2024.

The Securities Purchase Agreement, as confirmed and clarified by that certain letter agreement, dated October 31, 2022, between the Company and CBI USA, provided CBI USA together with its affiliates and any "group" of which it or they are a member with the right to designate directors to the Company's board of directors in proportion to the ownership of CBI USA and its affiliates and any such group. CBI USA and DGP have announced they expect to exercise such rights as a group. Together, they beneficially own 45% of the outstanding shares of Common Stock based on their most recent Schedule 13D amendment. As noted above, DGP has entered into an agreement to sell its remaining shares to a third party by or on June 30, 2024.

Nasdaq Listing Requirements Deficiency Notices

As previously disclosed, the Company has received numerous deficiency notes with respect to various Nasdaq listing requirements in the past year. These related to:

- Compliance with Nasdaq's minimum bid price rule due to the Company's stock trading below $1.00 for a sustained period of time. The Company effected a one-for-thirty reverse stock split on June 29, 2022 in order to attempt to raise the stock price. On September 13, 2023, the Company received a delinquency notification that the closing bid price of the Company's stock traded below $1.00 for the previous 30 consecutive business days. The Company's stock price has remained below $1.00 since receipt of the notification, which must be cured by September 9, 2024, per the March 12, 2024 extension letter received from Nasdaq.

- Compliance with Nasdaq's rule requiring stockholders' equity of at least $2,500,000 based on the Company's balance sheet as of September 30, 2023. The Company believes it is in compliance with this requirement based on its December 31, 2023 balance sheet, but we do not expect to be in compliance as of March 31, 2024.

- Compliance with Nasdaq's corporate governance requirements with respect to board and committee composition . The Company has received numerous deficiency notifications with respect to these requirements in the past year. Although the Company is currently in compliance, there can be no assurance it will remain in compliance.

- Compliance with Nasdaq's requirement to hold an annual meeting. On January 11, 2024, Nasdaq notified the Company that it did not comply with listing requirements by not holding an annual meeting in 2023. The Company received an extension letter on March 12, 2024 from Nasdaq noting it must hold its annual meeting by June 28, 2024.
- On November 22, 2023, the Company received a delinquency notification as it had not filed its third quarter Form 10-Q at the deadline, which was cured by filing of such Form 10-Q on May 16, 2024.
- On April 17, 2024, the Company received a delinquency notification as it had not filed its Annual Report Form 10-K for the year ended December 31, 2023. The extended deadline for compliance was established by Nasdaq at May 20, 2024, the same deadline for our Form 10-Q for the quarter ended September 30, 2023, which had yet to be filed at the time.
- Although the Company filed its Form 10-Q for the quarter ended September 30, 2023 prior to the extended deadline of May 20, 2024, on May 21, 2024, the Company received a delisting determination from the Nasdaq staff as a result of not filing its Annual Report Form 10-K by the May 20, 2024 deadline and failure to timely file its Form 10-Q for the period ended March 31, 2024. The staff's delisting determination also noted the failure to hold its 2023 annual meeting as another basis of the delisting determination.
- On May 28, 2024, the Company requested an appeal of the delisting determination to Nasdaq's hearings panel. A hearing has been scheduled for July 9, 2024. In connection with its request for an appeal, the Company also requested an extended stay on the suspension of trading in the Company's common stock through the decision of the hearings panel. If the extended stay is not granted, the automatic stay would only be in place for 15 calendar days from the May 28 appeal request.

Even if the Company regains compliance with Nasdaq's listing requirements and addresses the outstanding deficiency notices to Nasdaq's satisfaction, there can be no assurance that the Company will remain in compliance with Nasdaq's requirements and will not be delisted.

Basis of Presentation

The audited financial statements of Exicure, Inc. for the fiscal years ended December 31, 2023 and 2022, contained herein, include a summary of our significant accounting policies and should be read in conjunction with the discussion below.

Segment Reporting

We view our operations and manage our business as one segment.

Critical Accounting Estimates

We prepare our condensed consolidated financial statements in accordance with accounting principles generally accepted in the United States of America, which require our management to make estimates that affect the reported amounts of assets, liabilities and disclosures of contingent assets and liabilities at the balance sheet dates, as well as the reported amounts of revenues and expenses during the reporting periods. To the extent that there are material differences between these estimates and actual results, our financial condition or results of operations would be affected. We base our estimates on our own historical experience and other assumptions that we believe are reasonable after taking account of our circumstances and expectations for the future based on available information. We evaluate these estimates on an ongoing basis.

We consider an accounting estimate to be critical if: (1) the accounting estimate requires us to make assumptions about matters that were highly uncertain at the time the accounting estimate was made, and (2) changes in the estimate that are reasonably likely to occur from period to period, or use of different estimates that we reasonably could have used in the current period, would have a material impact on our financial condition or results of operations.

Management has discussed the development and selection of these critical accounting estimates with the Audit Committee of our Board of Directors. In addition, there are other items within our financial statements that require estimation, but are not deemed critical as defined above. Changes in estimates used in these and other items could have a material impact on our financial statements. This includes estimates where the nature of the estimate is material due to the levels of subjectivity and judgment necessary to account for highly uncertain matters or the susceptibility of such matters to change, and the impact of the estimate on financial condition or operating performance is material.

Recent adopted accounting pronouncements

Refer to Note 2, *Significant Accounting Policies*, of the accompanying unaudited condensed consolidated financial statements for a description of recent accounting pronouncements ASU 2016-13 adopted during the first quarter of 2023. There has been no impact on the financial statements from the adoption of this ASU.

Recent accounting pronouncements not yet adopted

There are no recent accounting pronouncements that the Company has not yet adopted.

Components of Statements of Operations

Revenue

For the year ended December 31, 2022, the Company's revenue was generated from its collaborations with Ipsen and AbbVie, which were terminated in the fourth quarter of 2022. Following the termination of the AbbVie and Ipsen agreements, as discussed above, we have no current source of revenue. We have never generated any commercial product revenue and do not expect to generate any product revenue.

Research and development expense

Research and development expense consisted of costs associated with our research activities, including basic research on our SNA platform, discovery and development of novel SNAs as prospective therapeutic candidates, preclinical and clinical development activities for SNAs we have nominated for clinical development as well as maintaining and protecting our intellectual property. Our research and development expenses in the periods presented include:

- employee-related expenses, including salaries, bonuses, benefits and equity-based compensation expense;
- early research and development expenses incurred under arrangements with third parties, such as contract research organizations, contract manufacturing organizations, and consultants;
- preclinical and clinical development expenses with third parties such as contract research organizations, contract manufacturing organizations, and consultants;
- costs of maintaining and protecting our intellectual property portfolio, including legal advisory fees, license fees, sublicense fees, patent maintenance and other similar fees;
- laboratory materials and supplies;
- facilities, depreciation and other allocated expenses, which include direct and allocated expenses for rent and maintenance of facilities, depreciation of leasehold improvements and equipment and laboratory and other supplies.

We expensed research and development costs as they were incurred. A significant portion of our research and development costs were not tracked by project as they benefit multiple projects or our technology.

As previously announced, we halted all research and development activities in 2022 and no longer incurred research and development expenses after the first quarter of 2023.

General and administrative expense

General and administrative expense consists primarily of salaries and related benefits, including equity-based compensation, related to our executive, finance, legal, business development and support functions. Other general and administrative expenses include travel expenses, professional fees for auditing, tax and legal services and allocated facility-related costs not otherwise included in research and development expenses.

Loss from sale of property and equipment

The Company sold the majority of its scientific equipment through a third party auctioneer and incurred a loss on the sale of these assets in the third quarter.

Changes in fair value of investment in convertible notes receivable

Changes in fair value became known and the Company impaired the entire $2 million amount of these convertible notes receivable.

Dividend income

Dividend income consists of income earned on our money market funds that are recorded as cash equivalents on our consolidated balance sheets.

Interest income

Interest income consists of income earned on our available for sale securities that are recorded as short-term investments on our consolidated balance sheets, as well as income earned on our cash balances.

Interest expense

Interest expense includes amounts pursuant to the MidCap Credit Agreement (as defined below). All outstanding indebtedness and other obligations under the MidCap Credit Agreement (as defined below) was repaid in full on March 15, 2022.

Other expense, net

Other expense, net mostly consists of gains and losses on foreign currency transactions and gains and losses on the sale of capital assets.

Results of Operations

Comparison of the Year Ended December 31, 2023 and 2022

The following table summarizes the results of our operations for the years ended December 31, 2023 and 2022:

(dollars in thousands)	Year Ended December 31, 2023	Year Ended December 31, 2022	Change	
Revenue:				
Collaboration revenue	$ —	$ 28,826	$ (28,826)	(100)%
Total revenue	—	28,826	(28,826)	(100)%
Operating expenses:				
Research and development expense	1,423	19,767	(18,344)	(93)%
General and administrative expense	12,653	10,890	1,763	16 %
Loss from sale of property and equipment	920	—	920	100 %
Total operating expenses	14,996	30,657	(15,661)	(51)%
Operating loss	(14,996)	(1,831)	(13,165)	719 %
Other (expense) income, net:				
Changes in fair value of investment in convertible notes receivable	(2,000)	—	(2,000)	100 %
Dividend income	52	78	(26)	(33)%
Interest income	32	15	17	113 %
Interest expense	—	(595)	595	(100)%
Other expense, net	(2)	(40)	38	(95)%
Total other expense, net	(1,918)	(542)	(1,376)	254 %
Net loss before provision for income taxes	(16,914)	(2,373)	(14,541)	613 %
Provision for income taxes	—	209	(209)	n/m
Net loss	$ (16,914)	$ (2,582)	$ (14,332)	555 %

Revenue

The following table summarizes our revenue earned during the periods indicated:

(dollars in thousands)	Year Ended December 31, 2023	Year Ended December 31, 2022		Change	
Collaboration revenue:					
AbbVie Collaboration Agreement	$ —	$ 11,135		$ (11,135)	(100)%
Ipsen Collaboration Agreement	—	17,691		(17,691)	(100)%
Total collaboration revenue	$ —	$ 28,826	28826000	$ (28,826)	(100)%
Total revenue	$ —	$ 28,826		$ (28,826)	(100)%

Collaboration revenue was $0.0 million during the year ended December 31, 2023, reflecting an decrease of $28.8 million, or 100%, from collaboration revenue of $28.8 million for the year ended December 31, 2022. The decrease in collaboration revenue of $28.8 million is due to the recognition of the remaining deferred revenue related to the AbbVie Collaboration Agreement of $11.1 million and the Ipsen Collaboration Agreement of $17.7 million in connection with the terminations of those collaboration agreements in December 2022. This revenue resulted from an accounting adjustment, did not reflect any new cash proceeds to the Company and will not recur. Following these terminations, we currently have no source of revenues.

Refer to Note 3, *Collaborative Research and License Agreements*, of the accompanying consolidated financial statements for more information regarding revenue recognition for the AbbVie Collaboration Agreement and Ipsen Collaboration Agreement.

Our ability to generate revenues in the future is dependent on our ability to successfully explore and execute strategic alternatives. Therefore, there is substantial uncertainty as to how, when or if we might be able to generate revenues in the future.

Research and development expense

The following table summarizes our research and development expenses incurred during the periods indicated:

(dollars in thousands)	Year Ended December 31, 2023	Year Ended December 31, 2022	Change	
Employee-related expense	$ 511	$ 6,661	$ (6,150)	(92)%
Platform and discovery-related expense	93	6,177	(6,084)	(98)%
Facilities, depreciation, and other expenses	755	4,119	(3,364)	(82)%
Clinical development programs expense	64	2,810	(2,746)	(98)%
Total research and development expense	$ 1,423	$ 19,767	$ (18,344)	(93)%
Full time employees	—	5	(5)	

Research and development expense was $1.4 million for the year ended December 31, 2023, reflecting a decrease of $18.3 million, or 93%, from research and development expense of $19.8 million for the year ended December 31, 2022. The decrease in research and development expense for the year ended December 31, 2023 of $18.3 million reflects the suspension of clinical, preclinical and discovery program activities and the reduction in headcount resulting from the restructuring activities that were announced in December 2021 and September 2022. We continued to incur certain expenses that were classified as research and development expenses in the first quarter of 2023. Thereafter, we determined it was no longer appropriate to record any research and development expenses, as the Company began exploring strategic alternatives in April 2023.

General and administrative expense

(dollars in thousands)	Year Ended December 31, 2023	Year Ended December 31, 2022	Change	
General and administrative expense	$ 12,653	$ 10,890	$ 1,763	16 %
Full time employees	6	8	(2)	

General and administrative expense was $12.7 million for the year ended December 31, 2023, representing an increase of $1.8 million, or 16%, from $10.9 million for the year ended December 31, 2022. The increase for the year ended December 31, 2023 was mostly due to $1.5 million of certain expenses that previously had been recorded as research and development expenses, such as office facilities, legal, and payroll related costs, that no longer met the criteria to be classified as research and development expenses due to the shift in our historical business operations discontinuing all research and development activities as discussed above. The increase was also due to higher costs from the separation pay of former executives and related stock based compensation expense, and increased franchise taxes; partially offset by lower professional fees as a result of reduced operations.

Loss from sale of property and equipment

In the third quarter, the Company sold the majority of its scientific equipment through a third party auctioneer and incurred a loss on the sale of these assets as a result.

Changes in fair value of investment in convertible notes receivable

Changes in fair value became known and the Company impaired the entire $2 million amount of these convertible notes receivable. As a result, the convertible notes receivable are recognized at a fair value of $0 as of December 31, 2023.

Interest expense

The decrease in interest expense of $0.6 million for the year ended December 31, 2023 is in connection with the repayment in full of all outstanding indebtedness and other obligations under the MidCap Credit Agreement (as defined below) on March 15, 2022.

Provision for income taxes

The effective tax rate for the year ended December 31, 2023 of 0% because the Company generated tax losses and provided a full valuation allowance against its deferred tax assets as the balance is not likely to be realized. The effective tax rate for the year ended December 31, 2022 of (8.8)% was attributable to the fact the Company was subject to the IRC Section 174 regulations requiring companies to capitalize certain research and experimental expenditures and IRC Section 382 loss limitation rules on our ability to utilize net operating losses to offset the capitalization requirement, with the most recent ownership change being in the fourth quarter of 2022. This resulted in current income tax expense in 2022.

As of December 31, 2023, the Company has "discontinued the original business" of Exicure within the meaning of Section 382(c). This change has and will continue to subject our net operating loss carryforwards as of the fourth quarter of 2022 to an annual zero limitation, which will fully restrict our ability to use loss carryforwards and deductions from built in loss assets generated before the ownership change date to offset our taxable income in periods following the ownership change.

Liquidity and Capital Resources

Since our inception, we have incurred significant operating losses. We generated limited revenue from our collaboration agreements, which have since been terminated. We have funded our operations to date with proceeds received from equity financings and payments received in connection with collaboration agreements, which have since been terminated. Currently we are exploring strategic alternatives and generating no revenue.

As of December 31, 2023, our cash and cash equivalents cash were $0.8 million. We had approximately $1.6 million in accounts payable as of December 31, 2023, as we deferred payments due to our deteriorating financial condition late in 2023. Subsequent to December 31, 2023, our cash and cash equivalents have decreased to approximately $0.2 million as of May 31, 2024. Although we are attempting to redeem the $2.0 million aggregate principal amount of our convertible notes receivable, there can be no assurance that we will be able to do so, in the near term or at all. See "Risk Factors – We may not be able to redeem the investment in convertible notes receivable."

We incurred net losses of approximately $16.9 million and $2.6 million for the years ended December 31, 2023 and 2022, respectively. As of December 31, 2023, we have generated an accumulated deficit of $208.4 million, including $18,837 of additional paid-in capital reclassed to accumulated deficit upon C-corporation conversion, since inception and expect to incur significant expenses and negative cash flows for the foreseeable future.

Our current liquidity is not sufficient to continue to fund existing obligations and operations. As a result, there is substantial doubt about our ability to continue as a going concern. Substantial additional financing will be needed in the very near term to fund our existing obligations and operations and there is no certainty we will obtain such financing. If we are unable to raise capital, we will be unable to continue operations. We may need to seek bankruptcy protection and/or cease operations in the near term, which may result in our stockholders receiving no or very little value in respect of their shares of our common stock.

See "Funding Requirements" below for additional information on our future capital needs.

Cash Flows

The following table shows a summary of our cash flows for the years ended December 31, 2023 and 2022:

(in thousands)	Years Ended December 31, 2023	2022
Net cash used in operating activities	$ (10,357)	$ (35,658)
Net cash (used in) provided by investing activities	(1,078)	4,696
Net cash provided by (used in) financing activities	3,674	(3,105)
Net (decrease) in cash, cash equivalents, and restricted cash	$ (7,761)	$ (34,067)

Operating activities

Net cash used in operating activities was $10.4 million and $35.7 million for the years ended December 31, 2023 and 2022, respectively. The decrease in cash used in operating activities for the year ended December 31, 2023 of $25.3 million was due to the suspension of R&D activities and lower headcount from the September 2022 and December 2021 restructurings.

Investing activities

Net cash used in investing activities was $1.1 million and provided by investing activities was $4.7 million for the years ended December 31, 2023 and 2022, respectively. The decrease in cash provided by investing activities of $5.8 million was primarily due to a decrease in proceeds from the maturity, net of purchases, of available-for-sale securities.

Financing activities

Net cash provided by financing activities of $3.7 million for year ended December 31, 2023 is primarily due to the Private Placement closed in February 2023. Net cash used in financing activities of $3.1 million for the year ended December 31, 2022 is primarily due to the repayment in full of all outstanding indebtedness and other obligations under the Credit and Security Agreement, dated as of September 25, 2020, as amended on October 21, 2020, July 30, 2021, September 30, 2021, and December 10, 2021, with MidCap Financial Trust, as agent, and the lenders party thereto from time to time, or the MidCap Credit Agreement, partially offset by net proceeds of approximately $4.9 million received in connection with the May 2022 private placement transaction.

Funding Requirements

We will need to obtain substantial additional funding in the very near term to satisfy existing obligations and continue operations. If we are unable to raise capital at all or on acceptable terms, we would be unable to continue operations.

Our existing cash and cash equivalents are not sufficient to enable us to fund our existing obligations and ongoing operating expenses. Our future capital requirements are difficult to forecast and will depend on many factors, including:

- the results of our exploration of strategic alternatives, including any potential transactions;
- the results of any future or pending litigation against the Company;
- the extent to which we encounter increased costs as a result of global and macroeconomic conditions, including rising inflation and interest rates, supply chain disruptions, fluctuating exchange rates, and increases in commodity, energy and fuel prices; and
- unknown legal, administrative, regulatory, accounting, and information technology costs as well as additional costs associated with operating as a public company.

Until such time, if ever, as we can generate substantial revenue, we expect to finance our cash needs primarily through equity offerings. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders may be materially diluted, and the terms of such securities could include liquidation or other preferences that adversely affect the rights of our stockholders. Debt financing and preferred equity financing, if available, may involve agreements that include restrictive covenants that limit our ability to take specified actions, such as incurring additional debt, making capital expenditures or declaring dividends. Further, the global financial markets have experienced significant disruptions over the past couple of years due to the COVID-19 pandemic, the ongoing conflict between Russia and Ukraine, and worsening global macroeconomic conditions, including actions taken by central banks to counter inflation, volatility in the capital markets and related market uncertainty, may impact our ability to obtain additional financing when needed on favorable terms or at all. Any further disruption or slowdown in the global financial markets and economy may negatively affect our ability to raise funding through equity or debt financings on attractive terms or at all, which could in the future negatively affect our operations.

Going Concern

In accordance with Accounting Standards Codification 205-40, *Going Concern*, we have evaluated whether there are conditions and events, considered in the aggregate, that raise substantial doubt about our ability to continue as a going concern within one year after the date that the consolidated financial statements are issued. In the absence of a significant source of recurring revenue, our continued viability is dependent on our ability to continue to raise additional capital to finance our operations. As discussed above, there are substantial uncertainties about our ability to raise such financing.

Contractual Obligations and Commitments

Chicago Lease

Refer to Note 7 - Leases to the Notes to our Consolidated Financial Statements included herein.

Item 7A. RESERVED

Item 8. Financial Statements and Supplementary Data.

EXICURE, INC.
INDEX TO FINANCIAL STATEMENTS

	PAGE
Report of Independent Registered Public Accounting Firm (Marcum LLP, Chicago, IL, PCAOB ID 688)	38
Report of Independent Registered Public Accounting Firm (KPMG LLP, Chicago, IL, PCAOB ID 185)	40
Consolidated Balance Sheets as of December 31, 2023 and 2022	41
Consolidated Statements of Operations for the years ended December 31, 2023 and 2022	42
Consolidated Statements of Comprehensive Loss for the years ended December 31, 2023 and 2022	43
Consolidated Statements of Changes in Stockholders’ Equity for the years ended December 31, 2023 and 2022	44
Consolidated Statements of Cash Flows for the years ended December 31, 2023 and 2022	45
Notes to Consolidated Financial Statements	47

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Exicure, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheet of Exicure, Inc. (the "Company") as of December 31, 2023, the related consolidated statements of operations, comprehensive loss, changes in stockholders' equity and cash flows for the year ended December 31, 2023, 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, 2023, and the results of its operations and its cash flows for the year ended December 31, 2023, in conformity with accounting principles generally accepted in the United States of America.

Going Concern

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As more fully described in Note 1 to the consolidated financial statements, the Company has incurred significant expenses and negative cash flows since inception and its current liquidity is not sufficient to fund operations over the next twelve months. These conditions raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

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 audit. 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 audit 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 audit, 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 audit 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 audit 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 audit provides a reasonable basis for our opinion.

Critical Audit Matter

Critical audit matters are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. We determined that there are no critical audit matters.

/s/ Marcum LLP

Marcum LLP

We have served as the Company's auditor since 2023.

New York, New York
June 6, 2024

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Exicure, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheet of Exicure, Inc. and subsidiary (the Company) as of December 31, 2022, the related consolidated statements of operations, comprehensive loss, changes in stockholders' equity, and cash flows for the year ended December 31, 2022, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and the results of its operations and its cash flows for the year ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has incurred significant expenses and negative cash flows since inception and its current liquidity is not sufficient to fund operations over the next twelve months, which raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit. 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 audit 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 consolidated 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 audit, 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 audit included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ KPMG LLP

We served as the Company's auditor from 2014 to 2023.

Chicago, Illinois
March 27, 2023

Table of Contents

EXICURE, INC.

CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share data)

	December 31,	
	2023	2022
ASSETS		
Current assets:		
Cash and cash equivalents	$ 816	$ 8,577
Other receivable	15	—
Prepaid expenses and other current assets	1,193	1,474
Total current assets	2,024	10,051
Property and equipment, net	54	2,530
Right-of-use asset	6,517	7,257
Other noncurrent assets	2,985	3,490
Total assets	$ 11,580	$ 23,328
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,631	$ 361
Accrued expenses and other current liabilities	879	1,278
Total current liabilities	2,510	1,639
Lease liability, noncurrent	6,039	6,767
Total liabilities	$ 8,549	$ 8,406
Commitments and Contingencies (Note 15)		
Stockholders' equity:		
Preferred stock, $0.0001 par value per share; 10,000,000 shares authorized, no shares issued and outstanding, December 31, 2023 and December 31, 2022	—	—
Common stock, $0.0001 par value per share; 200,000,000 shares authorized, 8,650,753 issued and outstanding, December 31, 2023; 4,965,901 issued and outstanding, December 31, 2022	1	—
Additional paid-in capital	192,593	187,571
Accumulated other comprehensive loss	—	—
Accumulated deficit	(189,563)	(172,649)
Total stockholders' equity	3,031	14,922
Total liabilities and stockholders' equity	$ 11,580	$ 23,328

See Accompanying Notes to Consolidated Financial Statements.

EXICURE, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except share and per share data)

	Year Ended December 31,	
	2023	2022
Revenue:		
Collaboration revenue	$ —	$ 28,826
Total revenue	—	28,826
Operating expenses:		
Research and development expense	1,423	19,767
General and administrative expense	12,653	10,890
Loss from sale of property and equipment	920	—
Total operating expenses	14,996	30,657
Operating loss	(14,996)	(1,831)
Other (expense) income, net:		
Changes in fair value of investment in convertible notes receivable	(2,000)	—
Dividend income	52	78
Interest income	32	15
Interest expense	—	(595)
Other expense, net	(2)	(40)
Total other expense, net	(1,918)	(542)
Net loss before provision for income taxes	(16,914)	(2,373)
Provision for income taxes	—	209
Net loss	$ (16,914)	$ (2,582)
Basic and diluted loss per common share	$ (2.11)	$ (0.56)
Weighted-average basic and diluted common shares outstanding	8,013,840	4,619,471

See Accompanying Notes to Consolidated Financial Statements.

EXICURE, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(in thousands, except share and per share data)

	Year Ended December 31,	
	2023	2022
Net loss	$ (16,914)	$ (2,582)
Other comprehensive (loss) income, net of taxes		
Unrealized gains on available for sale securities, net of tax	—	2
Other comprehensive income	—	2
Comprehensive loss	$ (16,914)	$ (2,580)

See Accompanying Notes to Consolidated Financial Statements.

EXICURE, INC.

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
(in thousands, except shares)

	Common Stock					
	Shares	$	Additional Paid-in-Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity
Balance at January 1, 2022	**3,626,073**	**$ —**	**$ 181,301**	**$ (170,067)**	**$ (2)**	**$ 11,232**
Exercise of options	124	—	—	—	—	—
Equity-based compensation	—	—	1,369	—	—	1,369
Vesting of restricted stock units and related repurchases	3,818	—	(4)	—	—	(4)
Issuance of common stock-ESPP	1,851	—	5	—	—	5
Issuance of common stock and warrants, net	1,334,035	—	4,900	—	—	4,900
Other comprehensive loss, net	—	—	—	—	2	2
Net loss	—	—	—	(2,582)	—	(2,582)
Balance at December 31, 2022	**4,965,901**	**$ —**	**$ 187,571**	**$ (172,649)**	**$ —**	**$ 14,922**
Reclassification of common stock warrants to liability	—	—	(800)	—	—	(800)
Equity-based compensation	—	—	1,348	—	—	1,348
Vesting of restricted stock units and related repurchases	284,852	1	(123)	—	—	(122)
Issuance of common stock and warrants, net	3,400,000	—	4,597	—	—	4,597
Net loss	—	—	—	(16,914)	—	(16,914)
Balance at December 31, 2023	**8,650,753**	**$ 1**	**$ 192,593**	**$ (189,563)**	**$ —**	**$ 3,031**

See Accompanying Notes to Consolidated Financial Statements.

EXICURE, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended December 31,	
	2023	2022
Cash flows from operating activities:		
Net loss	$ (16,914)	$ (2,582)
Adjustments to reconcile net loss to cash used in operating activities:		
Depreciation and amortization	634	1,163
Amortization of right-of-use asset	741	693
Equity-based compensation	1,348	1,369
Amortization of long-term debt issuance costs and fees	—	477
Amortization of investments	—	(2)
Changes in fair value of investment in convertible notes receivable	2,000	—
Loss from sale of property and equipment	920	—
Other	—	39
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	733	3,051
Other noncurrent assets	38	(2,165)
Accounts payable	1,270	(3,052)
Accrued expenses	(399)	(5,186)
Deferred revenue	—	(28,826)
Other liabilities	(728)	(637)
Net cash used in operating activities	(10,357)	(35,658)
Cash flows from investing activities:		
Purchase of available-for-sale securities	(2,000)	(1,499)
Proceeds from sale or maturity of available-for-sale securities	—	6,000
Capital expenditures	—	(10)
Proceeds from sale of property and equipment	922	205
Net cash (used in) provided by investing activities	(1,078)	4,696
Cash flows from financing activities:		
Proceeds from common stock offering	5,440	5,040
Payment of common stock financing costs	(843)	(154)
Payment of long-term debt fees and issuance costs	—	(506)
Repayment of long-term debt	—	(7,500)
Proceeds from issuance of employee stock purchase plan	—	5
Proceeds from exercise of common stock warrants	—	14
Payment of exercise of common stock warrants	(800)	—
Payments for minimum statutory tax withholding related to net share settlement of equity awards	(123)	(4)
Net cash provided by (used in) financing activities	3,674	(3,105)
Net (decrease) in cash, cash equivalents, and restricted cash	(7,761)	(34,067)
Cash, cash equivalents, and restricted cash - beginning of year	9,777	43,844
Cash, cash equivalents, and restricted cash - end of year	$ 2,016	$ 9,777

Table of Contents

EXICURE, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

The following table provides a reconciliation of cash, cash equivalents, and restricted cash reported within the consolidated balance sheets that sum to the total of the amounts shown in the consolidated statements of cash flows:

	Year Ended December 31,	
	2023	2022
Cash and cash equivalents	$ 816	$ 8,577
Restricted cash included in other noncurrent assets	1,200	1,200
Total cash, cash equivalents, and restricted cash shown in the consolidated statements of cash flows	$ 2,016	$ 9,777

See Accompanying Notes to Consolidated Financial Statements.

EXICURE, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(in thousands, except share and per share data)

1. Description of Business, Basis of Presentation and Going Concern

Description of Business

Exicure, Inc. has historically been an early-stage biotechnology company focused on developing nucleic acid therapies targeting ribonucleic acid against validated targets. In September 2022, the Company announced a significant reduction in force, suspension of preclinical activities and halting of all research and development, and that the Company was exploring strategic alternatives to maximize stockholder value. While the foregoing efforts are continuing, with respect to the Company's historical assets, the Company does not expect they will generate significant value for stockholders. Therefore, the Company is engaging in a broader exploration of strategic alternatives. This effort involves exploring growth through transactions with potential partners that see opportunity in joining an existing, publicly-traded organization. The Company is exploring transactions in industries unrelated to its historical operations.

Throughout these consolidated financial statements, the terms the "Company," and "Exicure" refer to Exicure, Inc. and where appropriate, its wholly owned subsidiary, Exicure Operating Company. Exicure Operating Company holds all material assets and conducts all business activities and operations of Exicure, Inc.

Basis of Presentation

These consolidated financial statements have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission and accounting principles generally accepted in the United States of America ("US GAAP") as defined by the Financial Accounting Standards Board ("FASB") within the FASB Accounting Standards Codification ("ASC") and are presented in thousands, except number of shares and per share data.

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of Exicure, Inc. and its wholly owned subsidiary, Exicure Operating Company. All intercompany transactions and accounts are eliminated in consolidation.

Reclassification

Certain accounts in the prior period consolidated financial statements have been reclassified to conform to the presentation of the current year consolidated financial statements. These reclassifications had no effect on the previously reported operating results.

Going Concern

At each reporting period, the Company evaluates whether there are conditions or events that raise substantial doubt about the Company's ability to continue as a going concern for a period of one year after the date that the financial statements are issued. The Company is required to make certain additional disclosures if it concludes substantial doubt exists and it is not alleviated by the Company's plans or when its plans alleviate substantial doubt about the Company's ability to continue as a going concern.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern for a period of one year after the date that the financial statements are issued. As of December 31, 2023, the Company expects to incur significant expenses and negative cash flows for the foreseeable future. As of December 31, 2023, the Company's cash and cash equivalents were $816. Management believes that given the Company's current cash position, operating plans and forecasted negative cash flows from operating activities over the next twelve months, there is substantial doubt about the Company's ability to continue as a going concern within one year after the date these financial statements are issued. The Company has no committed sources of additional capital at this time and substantial additional financing will be needed by the Company to fund its operations.

EXICURE, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(in thousands, except share and per share data)

Management believes that the Company's existing cash and cash equivalents are insufficient to continue to fund its operating expenses and additional funding is needed in the very near term. The Company has already engaged in significant cost reductions, so our ability to further cut costs and extend the Company's operating runway is limited. As a result, substantial additional financing will be needed by the Company in the very near term to pay expenses, fund the ongoing exploration of strategic alternatives and pursue any alternatives that may be identified. There can be no assurance that such additional financing will be available and, if available, can be obtained on acceptable terms.

The accompanying consolidated financial statements have been prepared as though the Company will continue as a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might be necessary should the Company be unable to continue as a going concern.

Use of Estimates

The preparation of the financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Management bases its estimates on certain assumptions which it believes are reasonable in the circumstances and while actual results could differ from those estimates, management does not believe that any change in those assumptions in the near term would have a significant effect on the Company's financial position, results of operations or cash flows. Actual results in future periods could differ from those estimates.

2. Significant Accounting Policies

Cash and cash equivalents

The Company considers all highly liquid investments with original maturities of three months or less to be cash equivalents. The Company classifies its marketable debt security investments as available-for-sale ("AFS") and carries them at fair market value based upon prices on the last day of the fiscal period for identical or similar items. The Company records unrealized gains and losses on marketable debt securities in other comprehensive income (loss) as a component of stockholders' equity until realized. Any premium or discount arising at purchase is amortized and/or accreted to interest income and/or interest expense over the life of the of the underlying security. Realized gains and losses are included in other income, net. The Company uses the specific identification method to determine the cost of securities sold.

Restricted cash

The Company secures a standby letter of credit with a restricted certificate of deposit account as part of its Chicago lease agreement. The Company considers the restricted certificate of deposit account in the amount of $1,200 to be restricted cash because its use to the Company is contractually limited and presents the balance within other noncurrent assets on the accompanying consolidated balance sheet at December 31, 2023 and 2022.

Fair value of financial instruments

The Company has estimated the fair value of its financial instruments. The carrying amounts for cash, cash equivalents, and accounts payable approximate their fair value due to the relatively short-term nature of these instruments. The Company records short-term investments at their estimated fair value based on quoted market prices for identical or similar instruments.

EXICURE, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(in thousands, except share and per share data)

Investment in Convertible Notes Receivable

Securities are classified as current or noncurrent based on the remaining contractual maturities of the securities. Securities are designated by the Company at the point of investment, as either trading, AFS, or held to maturity. Under ASC 825, Financial Instruments, the Company elected the fair value option for all outstanding convertible notes receivable. Management evaluates the performance of the securities on a fair value basis. Under the fair value option, the notes receivable are measured at each reporting period based upon their exit value in an orderly transaction and unrealized gains or losses from changes in fair value are recorded in the Condensed Consolidated Statements of Operations.

Investment in convertible notes receivable at fair value totaled $0 as of December 31, 2023. As of December 31, 2023, the aggregate cost of the investment in convertible notes receivable accounted for under the fair value option was $0, which included principal balances of $2,000 and the change in fair value of $2,000.

Concentrations of credit risk and other risks and uncertainties

Financial instruments that potentially expose the Company to concentrations of credit risk consist primarily of cash, cash equivalents, short-term investments, and accounts receivable. The Company places its cash, cash equivalents, and short-term investments with reputable financial institutions. The Company primarily invests its excess cash in debt instruments of corporations, the U.S. Treasury, financial institutions, and U.S. government agencies with strong credit ratings and an investment grade rating at or above a long-term rating of Aa3/AA- and a short-term rating of P1/A1. The Company has established guidelines relative to diversification and maturities that maintain safety and liquidity. The Company periodically reviews and modifies these guidelines to maximize trends in yields and interest rates without compromising safety and liquidity. The Company has not experienced any credit losses in such accounts. The Company has no financial instruments with off-balance sheet risk of loss.

For the year ended December 31, 2022, the Company’s revenue was generated from its collaborations with Ipsen and AbbVie, which were terminated in the fourth quarter of 2022 resulting in no revenue for 2023.

The Company is currently not profitable and no assurance can be provided that it will ever be profitable. The Company’s research and development activities have required significant investment since inception and operations are expected to continue to require cash investment in excess of its revenues. See also Note 1, *Going Concern*, for more information.

The Company is subject to risks associated with its exploration of strategic alternatives including, but not limited, the inability to identify any transactions that will generate value for stockholders, incurrence of excessive costs in seeking to identify and pursue transactions and the possibility that any transaction the Company does pursue will not provide anticipated benefits.

Property and equipment

Property and equipment are recorded at cost and depreciated using the straight-line method over the estimated useful lives of the various classes of property and equipment, which range from three to seven years. Leasehold improvements are amortized using the straight-line method over the shorter of the remaining terms of the respective leases or the estimated lives of the assets. Depreciation begins at the time the asset is placed in service.

Property and equipment are reviewed for impairment at least annually or whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. No impairment losses were recorded recorded for the years ended December 31, 2023 and 2022.

Warrants

The Company accounts for freestanding warrants within stockholder’s equity or as liabilities based on the characteristics and provisions of each instrument. The Company evaluates outstanding warrants in accordance with ASC 480, *Distinguishing Liabilities from Equity*, and ASC 815, *Derivatives and Hedging*. If none of the criteria in

the evaluation in these standards are met, the warrants are classified as a component of stockholders' equity and initially recorded at their grant date fair value without subsequent remeasurement. Warrants that meet the criteria are classified as liabilities and remeasured to their fair value, estimated using the Black-Scholes option-pricing model, at the end of each reporting period with changes in the fair value of the liability recorded in other income (expense), net in the consolidated statements of operations.

Revenue recognition

Under ASC 606, *Revenue from Contracts with Customers*, the Company recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration which the Company expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that are within the scope of ASC 606, the Company performs the following five steps:

1. *Identify the contract with the customer.* A contract with a customer exists when (i) the Company enters into an enforceable contract with a customer that defines each party's rights and obligations regarding the goods or services to be transferred and identifies the related payment terms, (ii) the contract has commercial substance, and (iii) the Company determines that collection of substantially all consideration for goods and services that are transferred is probable based on the customer's intent and ability to pay the promised consideration. The Company applies judgment in determining the customer's intent and ability to pay, which is based on a variety of factors including the customer's historical payment experience, or in the case of a new customer, published credit and financial information pertaining to the customer.
2. *Identify the performance obligations in the contract.* Performance obligations promised in a contract are identified based on the goods and services that will be transferred to the customer that are both capable of being distinct, whereby the customer can benefit from the good or service either on its own or together with other available resources, and are distinct in the context of the contract, whereby the transfer of the good or service is separately identifiable from other promises in the contract. To the extent a contract includes multiple promised goods and services, the Company must apply judgment to determine whether promised goods and services are both capable of being distinct and distinct in the context of the contract. If these criteria are not met, the promised goods and services are accounted for as a combined performance obligation.
3. *Determine the transaction price.* The transaction price is determined based on the consideration to which the Company will be entitled in exchange for transferring goods and services to the customer. To the extent the transaction price includes variable consideration, the Company estimates the amount of variable consideration that should be included in the transaction price utilizing either the expected value method or the most likely amount method, depending on the nature of the variable consideration. Variable consideration is included in the transaction price if, in the Company's judgment, it is probable that a significant future reversal of cumulative revenue under the contract will not occur. Any estimates, including the effect of the constraint on variable consideration, are evaluated at each reporting period for any changes. Determining the transaction price requires significant judgment.
4. *Allocate the transaction price to performance obligations in the contract.* If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. However, if a series of distinct services that are substantially the same qualifies as a single performance obligation in a contract with variable consideration, the Company must determine if the variable consideration is attributable to the entire contract or to a specific part of the contract. Contracts that contain multiple performance obligations require an allocation of the transaction price to each performance obligation on a relative standalone selling price basis unless the transaction price is variable and meets the criteria to be allocated entirely to a performance obligation or to a distinct service that forms part of a single performance obligation. The consideration to be received is allocated among the separate performance obligations based on relative standalone selling prices.
5. *Recognize revenue when or as the Company satisfies a performance obligation.* The Company satisfies performance obligations either over time or at a point in time. Revenue is recognized over time if either (i)

the customer simultaneously receives and consumes the benefits provided by the entity's performance, (ii) the entity's performance creates or enhances an asset that the customer controls as the asset is created or enhanced, or (iii) the entity's performance does not create an asset with an alternative use to the entity and the entity has an enforceable right to payment for performance completed to date. If the entity does not satisfy a performance obligation over time, the related performance obligation is satisfied at a point in time by transferring the control of a promised good or service to a customer. Examples of control are using the asset to produce goods or services, enhance the value of other assets, or settle liabilities, and holding or selling the asset.

Revenue allocated to performance obligations relating to provision of research and development activities is recognized as the performance obligations are satisfied using an input method to measure progress, based on an estimate of the percentage of completion of the project based on the actual hours incurred on the project as a percentage of the total expected project hours. The determination of the percentage of completion requires management to estimate the total expected project hours. A detailed estimate of the total expected project hours is re-assessed every reporting period based on the latest project plan and discussions with project teams. If a change in facts or circumstances occurs, the estimate will be adjusted and the revenue will be recognized based on the revised estimate. The difference between the cumulative revenue recognized based on the previous estimate and the revenue recognized based on the revised estimate would be recognized as an adjustment to revenue in the period in which the change in estimate occurs. Determining the estimate of total project hours requires significant judgment and may have a significant impact on the amount and timing of revenue recognition.

Licenses of intellectual property: If the license to the Company's intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, the Company recognizes revenues from consideration allocated to the license when the license is transferred to the customer and the customer is able to use and benefit from the licenses. For licenses that are combined with other promises, the Company utilize judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue. The Company evaluates the measure of progress each reporting period and, if necessary, adjusts the measure of performance and related revenue recognition.

Milestone payments: At the inception of each arrangement that includes development milestone payments, the Company evaluates the probability of reaching the milestones and estimates the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant revenue reversal would not occur in the future, the associated milestone value is included in the transaction price. Milestone payments that are not within the control of the Company or the licensee, such as regulatory approvals, are not considered probable of being achieved until those approvals are received and therefore revenue recognized is constrained as management is unable to assert that a reversal of revenue would not be possible. The transaction price is then allocated to each performance obligation on a relative standalone selling price basis, for which the Company recognizes revenue as or when the performance obligations under the contract are satisfied. At the end of each subsequent reporting period, the Company re-evaluates the probability of achievement of such development milestones and any related constraint, and if necessary, adjusts its estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which would affect collaboration revenues and earnings in the period of adjustment. To date, the Company has not recognized any milestone payment revenue from any of its collaboration agreements.

Royalties: For arrangements that include sales-based royalties, including milestone payments based on levels of sales, and the license is deemed to be the predominant item to which the royalties relate, the Company recognizes revenue at the later of (i) when the related sales occur, or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied). To date, the Company has not recognized any royalty revenue resulting from any of its collaboration agreements.

Equity-based compensation

The Company measures the cost of equity-based awards at fair value and records the cost of the awards, net of estimated forfeitures, on a straight-line basis over the requisite service period. The Company measures fair value for all common stock options using the Black-Scholes option-pricing model. The fair value of common stock option awards is affected by the valuation assumptions, including the expected volatility based on comparable market participants, expected term of the common stock option, risk-free interest rate, and expected dividends. For all equity-based awards, the fair value measurement date is the date of grant and the requisite service period is the period over which the recipient is required to provide service in exchange for the equity-based awards, which is generally the vesting period.

Segments and geographic information

The Company has determined it has one reporting segment. Disaggregating the Company's operations is impracticable because the Company's research and development activities and its assets overlap and management reviews its business as a single operating segment. Thus, discrete financial information is not available by more than one operating segment. All long-lived assets of the Company are located in the United States.

Leases

The Company determines if an arrangement is a lease at contract inception. Operating lease assets represent the Company's right to use an underlying asset for the lease term and operating lease liabilities represent the Company's obligation to make lease payments arising from the lease. Operating lease assets and liabilities are recognized on the balance sheet at the commencement date of the lease based upon the present value of lease payments over the lease term. When determining the lease term, the Company includes options to extend or to terminate the lease when it is reasonably certain that the Company will exercise that option. The Company uses the implicit interest rate when readily determinable and uses the Company's incremental borrowing rate when the implicit rate is not readily determinable based upon the information available at the commencement date in determining the present value of the lease payments.

The lease payments used to determine the Company's operating lease assets may include lease incentives, stated rent increases and escalation clauses linked to rates of inflation when determinable. In addition, the Company's lease arrangements may contain lease and non-lease components. The Company combines lease and non-lease components, which are accounted for together as a single lease component. Variable lease payments, such as real estate taxes and facility maintenance costs that are allocated by the lessor to the lessee and are not based on an index or a rate, are excluded from the measurement of the lease liability.

Lease expense for minimum lease payments is recognized on a straight-line basis over the lease term. Short-term leases, defined as leases that have a lease term of twelve months or less at the commencement date, are excluded from this treatment and are recognized on a straight-line basis over the term of the lease. Costs for variable lease payments that are not included in the lease liability are recognized as expense as incurred.

Research and development expense

Research and development expenses are charged to expense as incurred in performing research and development activities in accordance with ASC 730, *Research and Development*. The costs include employee-related expenses including salaries, benefits, and stock-based compensation expense, costs of funding research performed by third parties that conduct research and development and preclinical and clinical activities on the Company's behalf, the cost of purchasing lab supplies and non-capital equipment used in preclinical and clinical activities and in manufacturing preclinical and clinical study materials, consultant fees, facility costs including rent, depreciation and maintenance expenses, fees for acquiring and maintaining licenses under third party licensing agreements, including any sublicensing or success payments made to the Company's licensors, and overhead and other expenses directly related to research and development operations. In accruing service fees, the Company estimates the time period over which services will be performed and the level of effort to be expended in each

period. If the actual timing of the performance of services or the level of effort varies from the Company's estimate, the accrual or prepaid is adjusted accordingly. The Company defers and capitalizes non-refundable advance payments made by the Company for research and development activities until the related goods are received or the related services are performed. In circumstances where amounts have been paid in excess of costs incurred, the Company records a prepaid expense.

Income taxes

The Company recognizes deferred tax assets and liabilities for temporary differences between the financial reporting basis and the tax basis of its assets and liabilities and the expected benefits of net operating loss carryforwards. The impact of changes in tax rates and laws on deferred taxes, if any, is applied during the years in which temporary differences are expected to be settled and is reflected in the financial statements in the period of enactment. The measurement of deferred tax assets is reduced, if necessary, if, based on weight of the evidence, it is more likely than not that some, or all, of the deferred tax assets will not be realized. At December 31, 2023 and 2022, the Company established a full valuation allowance against its deferred tax assets to an amount that is more likely than not to be realized.

Recent Accounting Pronouncements Adopted

Financial Instruments - Credit Losses

In June 2016, the FASB issued ASU 2016-13, Measurement of Credit Losses on Financial Instruments (Topic 326) ("ASU 2016-13"). This ASU changes how entities will measure credit losses for most financial assets and certain other instruments that are not measured at fair value through net income. The standard replaces the "incurred loss" approach with an "expected loss" model. The new model, referred to as the current expected credit loss ("CECL") model, will apply to: (1) financial assets subject to credit losses and measured at amortized cost, and (2) certain off-balance sheet credit exposures. ASU 2016-13 also expands the disclosure requirements regarding an entity's assumptions, models, and methods for estimating the allowance for credit losses. ASU No. 2016-13 was effective for the Company beginning on January 1, 2020. The Company adopted this ASU in January 2023. There was no material impact on the consolidated financial statements.

3. Collaborative Research and License Agreements

Ipsen Collaboration Agreement

Summary of Agreement

On July 30, 2021 (the "Ipsen Effective Date"), the Company entered into a Collaboration, Option and License Agreement with Ipsen (the "Ipsen Collaboration Agreement"). Pursuant to the Ipsen Collaboration Agreement, the Company granted to Ipsen exclusive access and options to license SNA-based therapeutics arising from two collaboration programs related to the treatment of Huntington's disease and Angelman syndrome (each, an "Ipsen Collaboration Program"), respectively. Each such license (obtained in connection with the exercise of an Ipsen Option, as defined and discussed further below) would grant to Ipsen exclusive, royalty-bearing, sublicensable, worldwide rights to develop, manufacture, use and commercialize such SNA therapeutics. Upon written notice to the Company, Ipsen may exercise its option during the corresponding collaboration program's applicable option exercise period, (each, an "Ipsen Option Exercise Period").

On December 12, 2022 (the "Ipsen Termination Agreement Effective Date"), the Company and Ipsen entered into a Mutual Termination Agreement (the "Ipsen Termination Agreement"), pursuant to which the parties mutually agreed to terminate the Ipsen Collaboration Agreement. Following such termination, the parties will jointly own R&D Term IP (as defined in the Ipsen Collaboration Agreement) and Patents Covering the R&D Term IP (as defined in the Ipsen Collaboration Agreement), with each party owning an equal, undivided interest in and to such R&D Term IP and patents. As a result of the termination of the Ipsen Collaboration Agreement, the Company regained the ability to independently develop medicines targeting Angelman syndrome and Huntington's disease while Ipsen retains the right to re-enter into the collaboration with the Company in Huntington's disease and Angelman's syndrome.

As of the Ipsen Effective Date and through the Ipsen Termination Agreement Effective Date, the Company and Ipsen had agreed upon a development plan for each Ipsen Collaboration Program that describes the development activities and timelines required to advance each such Ipsen Collaboration Program through its first IND filing (each, an "Ipsen Development Plan"). The activities described in the Ipsen Development Plans were conducted under the supervision of the Ipsen Joint Steering Committee (the "Ipsen JSC") consisting of three members from each of the Company and Ipsen. Under the terms of the Ipsen Collaboration Agreement, the Company was to use commercially reasonable efforts to conduct discovery and development in two collaboration programs for Huntington's disease (the "HD Program") and Angelman syndrome (the "AS Program") (the "Ipsen Development Activities") respectively. The Company was solely responsible for all costs and expenses of conducting each Ipsen Collaboration Program through the selection of SNA therapeutic candidates for further development ("Ipsen Selection"), and Ipsen was responsible for all costs and expenses of all activities that were necessary to enable the first filing of an IND for each proposed product candidate. In the event that Ipsen exercised an option, Ipsen would have been responsible for further development from the license effective date and commercialization of the corresponding licensed product.

In the event of completion of all Ipsen Development Activities for the Ipsen Selection (the "Ipsen First R&D Term Activities"), the Company was required to deliver to Ipsen a report that described the results of the Ipsen First R&D Term Activities and identified at least one SNA-based compound that satisfies certain criteria for such Ipsen Collaboration Program as determined by the Ipsen JSC (the "Ipsen First Option Data Package"). Following the delivery of the Ipsen First Option Data Package for an Ipsen Collaboration Program, Ipsen would have had the ability for a defined period of time (the "Ipsen First Option Exercise Period") to exercise an option (each a "First Ipsen Option") to obtain worldwide rights and license to the Company's SNA technology and the Company's interest in joint collaboration technology to make, have made, import, use, sell or offer for sale any product (each an "Ipsen Licensed Product") that resulted from such Ipsen Collaboration Program during the term of the Ipsen Collaboration Agreement.

In the event Ipsen (i) did not exercise the First Ipsen Option with respect to an Ipsen Collaboration Program, (ii) the Ipsen Collaboration Agreement had not expired or been terminated with respect to such Ipsen Collaboration

Program, and (iii) Ipsen agreed to fully fund additional research activities for an Ipsen Collaboration Program through IND filing, the Company would have been responsible for research and development activities for such Ipsen Collaboration Program through IND filing (the "Ipsen Second R&D Term Activities"). In the event of completion of the Ipsen Second R&D Term Activities, the Company would have been required to deliver to Ipsen a report that described the results of the Ipsen Second R&D Term Activities (the "Ipsen Second Option Data Package"). Following the delivery of the Ipsen Second Option Data Package for an Ipsen Collaboration Program, Ipsen would have had the ability for a defined period of time (the "Ipsen Second Option Exercise Period") to exercise an option (each a "Second Ipsen Option" and together with the First Ipsen Option, the "Ipsen Options") to obtain worldwide rights and license to the Company's SNA technology and the Company's interest in joint collaboration technology to make, have made, import, use, sell or offer for sale any Ipsen Licensed Product" that results from such Ipsen Collaboration Program during the term of the Ipsen Collaboration Agreement.

In the event of Ipsen's exercise of an Ipsen Option for an Ipsen Collaboration Program, the Company would have been required to supply to Ipsen the licensed SNAs under current Good Manufacturing Practice, at the Company's manufacturing cost pursuant to a clinical supply agreement to be negotiated by the Company and Ipsen in good faith following the Ipsen Effective Date and executed within twelve (12) months after the Ipsen Effective Date (the "Ipsen Supply Agreement"). The Ipsen Supply Agreement would have provided for the transfer by the Company to Ipsen of all documents and information, and the provision by the Company of technical assistance and support, for Ipsen to manufacture or have manufactured by a third party contractor engaged by Ipsen the applicable licensed SNA to the extent it is intended to be actually used in the development and manufacture of the applicable licensed products.

Under the terms of the Ipsen Collaboration Agreement, the Company received a nonrefundable upfront payment of $20,000 (the "Ipsen Upfront Payment"). If Ipsen exercised a First Ipsen Option, Ipsen was required to pay the Company the First Ipsen Option exercise fee of $10,000 for each Ipsen Collaboration Program. If Ipsen exercised a Second Ipsen Option, Ipsen was required to pay the Company the Second Ipsen Option exercise fee of $25,000 for each Ipsen Collaboration Program.

Ipsen would have been required to pay a preclinical milestone payment of $5,000 for each Ipsen Collaboration Program upon achievement of such milestone regardless of whether an Ipsen Option was exercised. In addition to the option exercise fees and the preclinical milestones described above, if Ipsen exercised an Ipsen Option for an Ipsen Collaboration Program, development and regulatory milestones would have been payable for that program upon the initiation of certain clinical trials and the filing for processing by the United States Food and Drug Administration ("FDA") in the United States and by two additional regulators outside the United States of a marketing application for review, per the Ipsen Collaboration Program, with an aggregate total of up to $180,000 if both Ipsen Options were exercised. Commercial milestones would have been payable for that Ipsen Collaboration Program upon first commercial sale of a licensed product in certain jurisdictions and the achievement of specified aggregate sales thresholds for all licensed products from that program, with an aggregate total of up to $762,000 if both Ipsen Options were exercised. In the event a therapeutic candidate subject to the Ipsen Collaboration Agreement resulted in commercial sales, the Company was eligible to receive tiered royalties at percentages ranging from the mid-single digits to the mid-teens on future net product sales of such commercialized therapeutic candidates. A percentage of the aforementioned payments would have been due to Northwestern University upon receipt, pursuant to the terms of the Company's existing license agreements with Northwestern University (see Note 15, *Commitment and Contingencies,* for more information on the Northwestern University License Agreements (as defined below)). In connection with the receipt of the Ipsen Upfront Payment, the Company paid a $3,000 license fee to Northwestern University under the terms of the Northwestern License Agreements.

The Company's obligations to conduct activities defined in the Ipsen Development Plan under the Ipsen Collaboration Agreement commenced on July 30, 2021 and continued through the Ipsen Termination Agreement effective date.

Accounting Analysis

The Company concluded that Ipsen was a customer in this arrangement, and as such the arrangement falls within the scope of the revenue recognition guidance. Under the Ipsen Collaboration Agreement, the Company has identified two performance obligations, as follows: (1) the performance obligation related to the HD Program that includes (i) the Ipsen First R&D Term Activities related to the HD Program (the "Ipsen HD Program R&D Services"), (ii) Ipsen JSC services related to the HD Program during the Ipsen First Term (the "Ipsen HD Program JSC Services"), and (iii) activities related to the negotiation of the Ipsen Supply Agreement within twelve months of the Ipsen Effective Date; and (2) the performance obligation related to the AS Program that includes (i) the Ipsen First R&D Term Activities related to the AS Program (the "Ipsen AS Program R&D Services"), (ii) Ipsen JSC services related to the AS Program during the Ipsen First Term (the "Ipsen AS Program JSC Services"), (iii) and activities related to the negotiation of the Ipsen Supply Agreement within twelve months of the Ipsen Effective Date. The Company has concluded that the Ipsen HD Program R&D Services and the Ipsen AS Program R&D Services are not distinct from the Ipsen HD Program JSC Services and the Ipsen AS Program JSC Services, respectively. The Company has also concluded that the Ipsen HD Program JSC Services and the Ipsen AS Program JSC Services are not distinct from the activities related to entering the Ipsen Supply Agreements for each respective program. The Ipsen JSC provided oversight and management of the overall Ipsen Collaboration Agreement, and the members of the Ipsen JSC from the Company have specialized industry knowledge, particularly as it relates to SNA technology. The Ipsen JSC was meant to facilitate the early stage research being performed and coordinate the activities of both the Company and Ipsen. Further, the Ipsen JSC services were critical to the ongoing evaluation of the Ipsen Collaboration Programs and the drafting and evaluation of the Ipsen First Option Data Package. The Ipsen JSC would also have provided oversight and management of the activities to enter into the Ipsen Supply Agreement. Accordingly, the Company's participation on the Ipsen JSC was essential to Ipsen receiving value from the Ipsen HD Program R&D Services and the Ipsen AS Program R&D Services, and as such, (i) the Ipsen HD Program JSC Services, along with the Ipsen HD Program R&D Services and the activities related to entering the Ipsen Supply Agreement within twelve months of the Ipsen Effective Date for that program are considered a single performance obligation (the "Ipsen HD Program Services") and (ii) the Ipsen AS Program JSC Services along with the Ipsen AS Program R&D Services and the activities related to entering the Ipsen Supply Agreement within twelve months of the Ipsen Effective Date for that program are considered a single performance obligation (the "Ipsen AS Program Services").

As of the Ipsen Effective Date, the total transaction price was determined to be $20,000, consisting solely of the Ipsen Upfront Payment. The Company also utilized the most likely amount method to estimate any development and regulatory milestone payments to be received. As of the Ipsen Effective Date, there were no milestones included in the transaction price. The preclinical, development, regulatory, and commercial milestones were fully constrained due to the significant uncertainties surrounding such payments. The Company considered the stage of development and the risks associated with the remaining development required to achieve the milestone, as well as whether the achievement of the milestone is outside the control of the Company or Ipsen. The Company has determined that any commercial milestones and sales-based royalties will be recognized when the related sales occur and therefore, they have also been excluded from the transaction price. The Company re-evaluated the transaction price at the end of each reporting period and as uncertain events were resolved or other changes in circumstances occurred. As of the Ipsen Termination Agreement Effective Date, the Company determined that the total transaction price was $20,000.

The Company allocated the total transaction price to each of the two identified performance obligations under the Ipsen Collaboration Agreement based on an expected cost plus a margin approach, as follows: $10,793 of the transaction price allocated to the Ipsen HD Program Services and $9,207 of the transaction price allocated to the Ipsen AS Program Services.

The Company recognized revenue related to each of Ipsen HD Program Services and the Ipsen AS Program Services as those performance obligations were satisfied using an input method to measure progress for each of those performance obligations. The Company believes the input method that most accurately depicts the measure of progress is the actual hours incurred to date relative to projected hours to complete the activities for the Ipsen HD Program Services and the Ipsen AS Program Services. In connection with the Ipsen Termination Agreement, the

Company recognized as revenue any remaining deferred revenue associated with the Ipsen Collaboration Agreement in the fourth quarter of 2022.

During the year ended December 31, 2022, the Company recognized revenue under the Ipsen Collaboration Agreement of $17,691.

AbbVie Collaboration Agreement

Summary of Agreement

On November 13, 2019 (the "AbbVie Effective Date"), the Company entered into a Collaboration, Option and License Agreement (the "AbbVie Collaboration Agreement"), with a wholly-owned subsidiary of Allergan plc, Allergan. On May 8, 2020, Allergan plc, including Allergan was acquired by AbbVie. Pursuant to the AbbVie Collaboration Agreement, the Company granted to AbbVie exclusive access and options to license SNA-based therapeutics arising from two collaboration programs related to the treatment of hair loss disorders (each, an "AbbVie Collaboration Program"). Under each such license (obtained in connection with the exercise of an AbbVie Option, as defined and discussed further below), the Company would grant to AbbVie exclusive, royalty-bearing, sublicensable, nontransferable, worldwide rights to develop, manufacture, use and commercialize such SNA therapeutics. Under the AbbVie Collaboration Agreement, the Company was to use commercially reasonable efforts to conduct the AbbVie Collaboration Programs, each focused on one or more hair loss disorders to discover one or more SNA products that are directed to, bind to or inhibit one or more specific AbbVie Collaboration Program targets.

On December 13, 2022 (the "AbbVie Termination Agreement Effective Date"), the Company and Allergan entered into a letter agreement (the "AbbVie Termination Agreement"), pursuant to which the parties mutually agreed to terminate the AbbVie Collaboration Agreement. Following such termination, the Company transferred to Allergan all data, information, and reports made or generated by the Company in the course of performing activities under the Development Plan (as defined in the AbbVie Collaboration Agreement), and granted to Allergan all rights to transfer, publish, present, or otherwise publicly disclose any Collaboration Technology (as defined in the AbbVie Collaboration Agreement) and data made or generated by the Company in the course of performing activities under the Development Plan. As a result of the termination of the AbbVie Collaboration Agreement, the Company regained the ability to independently develop medicines targeting hair loss disorders.

As of the AbbVie Effective Date and through the AbbVie Termination Agreement Effective Date, the Company and AbbVie had agreed upon a development plan for each AbbVie Collaboration Program that described the development activities and timelines required to advance such AbbVie Collaboration Program through its first IND filing (each, an "AbbVie Development Plan"). The activities described in the AbbVie Development Plan were conducted under the supervision of the AbbVie Joint Development Committee (the "AbbVie JDC") consisting of three members from each of the Company and AbbVie. The Company was primarily responsible for performing early-stage discovery and preclinical activities (the "AbbVie Collaboration Program Initial Development Activities") set forth in the AbbVie Development Plan for each AbbVie Collaboration Program and would have been solely responsible for all costs and expenses related to the AbbVie Collaboration Program Initial Development Activities. AbbVie had the right to elect, in its sole discretion and at its sole cost and expense, to conduct formulation assessment and *in vivo* testing as set forth in an AbbVie Development Plan.

In the event of completion of all AbbVie Initial Development Activities, the Company would have been required to deliver to AbbVie a report that described the results of the AbbVie Initial Development Activities and identified at least one SNA-based compound that satisfies certain criteria for such AbbVie Collaboration Program as determined by the AbbVie JDC (the "AbbVie Initial Development Report"). Following the delivery of the AbbVie Initial Development Report for an AbbVie Collaboration Program, AbbVie would have had the ability for a defined period of time (the "AbbVie Initial Option Exercise Period") to exercise an option (each an "AbbVie Option") to obtain worldwide rights and license to the Company's SNA technology and the Company's interest in joint collaboration technology to make, have made, import, use, sell or offer for sale any product (each an "AbbVie

Licensed Product") that resulted from such AbbVie Collaboration Program during the term of the AbbVie Collaboration Agreement.

At AbbVie's sole option, AbbVie had the right to extend the AbbVie Initial Option Exercise Period (the "AbbVie Option Extension") and require the Company to perform IND-enabling activities described in the AbbVie Development Plan (the "AbbVie IND-Enabling Activities"), subject to the payment of additional consideration ("AbbVie Extension Exercise"). If AbbVie exercised the AbbVie Option Extension, the Company would have been responsible for conducting the AbbVie IND-Enabling Activities and would have been solely responsible for all costs and expenses associated with such activities. In the event of completion of the AbbVie IND-Enabling Activities, the Company would have been required to deliver a report that describes the results of the AbbVie IND-Enabling Activities (the "AbbVie IND-Enabling Activities Data Package") to AbbVie. Following the delivery of AbbVie IND-Enabling Activities Data Package, AbbVie would have had the ability for a defined period of time (the "AbbVie Extended Option Exercise Period") to exercise an AbbVie Option with respect to such AbbVie Collaboration Program. After the exercise of an AbbVie Option with respect to an AbbVie Collaboration Program, AbbVie would have been responsible for all development, manufacturing and commercialization activities, and costs and expense associated with such activities in connection with AbbVie Licensed Products arising from such AbbVie Collaboration Program.

The Company's obligation to conduct the activities defined in the AbbVie Development Plan under the AbbVie Collaboration Agreement commenced on November 13, 2019 and continued through the AbbVie Termination Agreement Effective Date.

Under the terms of the AbbVie Collaboration Agreement, the Company received a $25,000 upfront, non-refundable, non-creditable cash payment (the "AbbVie Upfront Payment") related to the Company's research and development costs for conducting the AbbVie Development Plan for two AbbVie Collaboration Programs, each focused on one or more targets, and certain options to obtain exclusive, worldwide licenses under certain intellectual property rights owned or controlled by the Company to develop, manufacture and commercialize certain products resulting from each such AbbVie Collaboration Programs. The option exercise fee during the AbbVie Initial Option Exercise Period was $10,000 per AbbVie Collaboration Program. If AbbVie elected to extend the AbbVie Initial Option Exercise Period, AbbVie would have been required to pay an additional fee of $10,000. If AbbVie elected to exercise its option during the AbbVie Extended Option Exercise Period, AbbVie would have been required to pay the Company the option exercise fee of $15,000.

Following the exercise by AbbVie of an AbbVie Option with respect to an AbbVie Collaboration Program, AbbVie would have been required to make certain milestone payments to the Company upon the achievement of specified development, product approval and launch, and commercial events, on an AbbVie Licensed Product by AbbVie Licensed Product basis. On an AbbVie Licensed Product by AbbVie Licensed Product basis, for the first AbbVie Licensed Product to achieve the associated milestone event, the Company was eligible to receive up to an aggregate of $55,000 for development milestone payments and $132,500 for product approval and launch milestone payments. The Company was also eligible for up to $175,000 in sales milestone payments on an AbbVie Collaboration Program by AbbVie Collaboration Program basis, associated with aggregate worldwide sales. Certain product approval milestones were subject to certain reductions under specified circumstances, including for payments required to be made by AbbVie to obtain certain third-party intellectual property rights.

In addition, to the extent there was any AbbVie Licensed Product, the Company would have been entitled to receive tiered royalty payments of mid-single digits to the mid-teens percentage on future net worldwide product sales of such AbbVie Licensed Products, subject to certain reductions under specified circumstances. Royalties were due on a AbbVie Licensed Product by AbbVie Licensed Product and country by country basis from the date of the first commercial sale of each AbbVie Licensed Product in a country until the latest to occur of: (i) the expiration date in such country of the last to expire valid claim within the licensed intellectual property covering the manufacture, use or sale of such AbbVie Licensed Product in such country, (ii) the tenth anniversary of the first commercial sale of such AbbVie Licensed Product in such country, and (iii) the expiration of regulatory exclusivity for such AbbVie Licensed Product in such country.

Accounting Analysis

The Company concluded that AbbVie was a customer in this arrangement, and as such the arrangement falls within the scope of the revenue recognition guidance. Under the AbbVie Collaboration Agreement, the Company has identified a single performance obligation that includes (i) the research and development activities during the AbbVie Research Term (the "AbbVie R&D Services"), and (ii) AbbVie Joint Development Committee services during the AbbVie Research Term (the "AbbVie JDC Services"). The Company has concluded that the AbbVie R&D Services is not distinct from the AbbVie JDC Services during the AbbVie Research Term. The AbbVie JDC provided oversight and management of the overall AbbVie Collaboration Agreement, and the members of the AbbVie JDC from the Company have specialized industry knowledge, particularly as it relates to SNA technology. The AbbVie JDC was meant to facilitate the early-stage research being performed and coordinate the activities of both the Company and AbbVie. Further, the AbbVie JDC services were critical to the ongoing evaluation of an AbbVie Collaboration Program and the drafting and evaluation of the AbbVie Initial Development Report and the AbbVie IND-Enabling Data Package. Accordingly, the Company's participation on the AbbVie JDC was essential to AbbVie receiving value from the AbbVie R&D Services and as such, the AbbVie JDC Services along with the AbbVie R&D Services are considered one performance obligation (the "AbbVie Collaboration Program Services"). In addition, the Company has concluded that the option to purchase two development and commercialization licenses was considered a marketing offer as the options did not provide any discounts or other rights that would be considered a material right in the arrangement, and thus, not a performance obligation at the onset of the agreement. The consideration for these options would have been accounted for when they are exercised.

As of the AbbVie Effective Date, the total transaction price was determined to be $25,000, consisting solely of the AbbVie Upfront Payment. The Company also utilized the most likely amount method to estimate any development and regulatory milestone payments to be received. As of the AbbVie Effective Date, there were no milestones included in the transaction price. The milestones were fully constrained due to the significant uncertainties surrounding such payments. The Company considered the stage of development and the risks associated with the remaining development required to achieve the milestone, as well as whether the achievement of the milestone is outside the control of the Company or AbbVie. The Company has determined that any commercial milestones and sales-based royalties will be recognized when the related sales occur and therefore they have also been excluded from the transaction price. The Company re-evaluated the transaction price at the end of each reporting period and as uncertain events were resolved or other changes in circumstances occurred. As of the AbbVie Termination Agreement Effective Date, the Company determined the total transaction price was $25,000.

The Company recognized revenue related to the AbbVie Collaboration Program Services as the performance obligation is satisfied using an input method to measure progress. The Company believes the input method that most accurately depicts the measure of progress is the actual hours incurred to date relative to projected hours to complete the research service.

During the third quarter of 2021, the AbbVie JDC revised the AbbVie Initial Development Plan for each AbbVie Collaboration Program. As a result, the Company had increased its estimate of total hours to complete the research services, requiring an adjustment to cumulative revenue recognized (considered a change in estimate pursuant to ASC 606), which led to a full year revenue reversal of $(2,792) in the prior year.

In connection with the AbbVie Termination Agreement, the Company recognized as revenue any remaining deferred revenue associated with the AbbVie Collaboration Agreement in the fourth quarter of 2022.

During the year ended December 31, 2022, the Company recognized revenue under the AbbVie Collaboration Agreement of $11,135.

4. Supplemental Balance Sheet Information

Prepaid expenses and other current assets

	December 31,	
	2023	2022
Prepaid clinical, contract research and manufacturing costs	$ —	$ 213
Prepaid insurance	508	408
Prepaid franchise tax	259	223
Lease costs	235	111
Other	191	519
Prepaid expenses and other current assets	$ 1,193	$ 1,474

Other noncurrent assets

	December 31,	
	2023	2022
Restricted cash	$ 1,200	$ 1,200
Prepaid insurance, noncurrent	1,785	2,252
Other	—	38
Other noncurrent assets	$ 2,985	$ 3,490

Property and equipment, net

	December 31,	
	2023	2022
Scientific equipment	$ 246	$ 6,087
Computers and software	3	63
Furniture and fixtures	30	30
Property and equipment, gross	279	6,180
Less: accumulated depreciation	(225)	(3,650)
Property and equipment, net	$ 54	$ 2,530

Depreciation and amortization expense was $634 and $1,163, for the years ended December 31, 2023 and 2022, respectively. During the year ended December 31, 2023, the Company sold scientific equipment with a net book value of $1,834 and recognized a loss of $920 in the accompanying statement of operations for the year ended December 31, 2023.

Accrued expenses and other current liabilities

	December 31,	
	2023	2022
Accrued clinical, contract research and manufacturing costs	$ —	$ 48
Accrued restructuring costs	—	48
Lease liability, current	626	539
Accrued payroll-related expenses	71	32
Accrued other expenses	182	611
Accrued expenses and other current liabilities	$ 879	$ 1,278

5. Investment in Convertible Notes Receivable

In May 2023, the Company entered into two subscription agreements to purchase non-guaranteed private placement convertible notes receivable (the “Notes Receivable”) for a subscription amount of $1 million each. The Notes Receivable mature in May 2026 and the yield to maturity is 4.5% per annum. The Company has the option to request that the issuer redeem part or the entire principal amount of the Notes Receivable on the first anniversary after the issue date and every three months thereafter before the maturity date. The conversion ratio will be one hundred percent (100%) of the Notes Receivable’s face value. The Company also has the ability to convert the debt into shares based on the number of shares computed by dividing the face value of each security by a calculated conversion price, which is subject to adjustment provisions, determined at the time of issuance. The securities may be converted from May 3, 2024, the first anniversary of the issue date of the first agreement, to April 15, 2026, one month prior to the maturity date to the second agreement. In March 2024, the Company notified the issuer of the Notes Receivable that it was exercising its redemption right with respect to the entire principal amount of the Notes Receivable after the first anniversary of their issue dates (May 3 and May 16, 2024, respectively) for an aggregate redemption price of $2.090 million (representing the principal amount plus 4.5% per annum yield to the redemption date). The issuer has taken the position that the Notes Receivable are not redeemable until August 3, 2024 and August 16, 2024.

The Company’s debt securities are classified as AFS pursuant to ASC 320 - Investments - Debt Securities. AFS securities are recorded at fair value. During the year ended December 31, 2023, management does not believe these AFS investments are recoverable and booked a change in fair value to record them at a fair value of $0. The Company held no AFS debt securities as of December 31, 2022.

6. Debt

MidCap Credit Agreement

On March 15, 2022, pursuant to the terms of the Company’s Credit and Security Agreement, dated as of September 25, 2020, as amended on October 21, 2020, July 30, 2021, September 30, 2021, and December 10, 2021 with MidCap Financial Trust, as agent, and the lenders party thereto from time to time (as amended, the “MidCap Credit Agreement”), the Company repaid all remaining outstanding obligations under the MidCap Credit Agreement, including the outstanding principal balance of $7,500 and an exit fee of $506.

The MidCap Credit Agreement provided for a secured term loan facility in an aggregate principal amount of up to $25,000 (the “MidCap Credit Facility”). The Company borrowed the first advance of $17,500 (“Tranche 1”) on September 25, 2020 (the “Closing Date”). Amendment No. 4 terminated the availability of the second advance of $7,500 (“Tranche 2”), effective as of December 9, 2021, that was previously available under the MidCap Credit Agreement subject to certain conditions.

Tranche 1 bore interest at a floating rate equal to 6.25% per annum, plus the greater of (i) 1.50% or (ii) one-month LIBOR. Interest on each loan advance is due and payable monthly in arrears. Principal on each loan advance was payable in 36 equal monthly installments beginning October 1, 2022 until paid in full on October 1, 2025 (the

"Maturity Date"). Prepayments of the loans under the MidCap Credit Agreement, in whole or in part, were subject to early termination fees in an amount equal to 3.0% of principal prepaid if prepayment occurs on or prior to the first anniversary of the Closing Date and 1.0% of principal prepaid if prepayment occurs after the first anniversary of the Closing Date and prior to the maturity date. Pursuant to Amendment No. 4, the early termination fee associated with the prepayment of $10,000 made in December 2021 was waived and, since the remaining principal amount was repaid on or prior to March 31, 2022, the associated early termination fee for that prepayment was also waived. In connection with execution of the MidCap Credit Agreement, the Company paid MidCap a $125 origination fee.

At the Maturity Date or on any earlier date on which all amounts advanced to the Company become due and payable in full, or are otherwise paid in full, the Company was required to pay an exit fee equal to 3.75% of the principal amount of all loans advanced to the Company under the MidCap Credit Agreement. Upon the advance of Tranche 1, the Company accrued $656 for the related exit fee. Pursuant to Amendment No. 4, since the remaining principal amount was repaid on or prior to March 31, 2022, a portion of the related exit fee that had not been earned by MidCap was waived.

The Company's obligations under the MidCap Credit Agreement were secured by a security interest in substantially all of its assets, excluding intellectual property (which is subject to a negative pledge). Additionally, the Company's future subsidiaries, if any, may have been required to become co-borrowers or guarantors under the MidCap Credit Agreement.

The MidCap Credit Agreement contained customary affirmative covenants and customary negative covenants limiting the Company's ability and the ability of the Company's subsidiaries, if any, to, among other things, dispose of assets, undergo a change in control, merge or consolidate, make acquisitions, incur debt, incur liens, pay dividends, repurchase stock and make investments, in each case subject to certain exceptions.

The MidCap Credit Agreement also contained customary events of default relating to, among other things, payment defaults, breaches of covenants, a material adverse change, delisting of the Company's common stock, bankruptcy and insolvency, cross defaults with certain material indebtedness and certain material contracts, judgments, and inaccuracies of representations and warranties. Upon an event of default, the agent and the lenders may declare all or a portion of the Company's outstanding obligations to be immediately due and payable and exercise other rights and remedies provided for under the agreement. During the existence of an event of default, interest on the obligations could have been increased by 2.0%.

Total proceeds, net of fees and issuance costs, borrowed under Tranche 1 were $16,512. Fees and issuance costs of $332, as well as fees of $656 that were payable to MidCap at maturity of Tranche 1, were recorded as a reduction to the carrying amount of long-term debt on the Company's balance sheet and, prior to the repayment of all remaining outstanding obligations under the MidCap Credit Agreement on March 15, 2022, were amortized to interest expense through the maturity date of October 1, 2025 using the effective interest method. Fees and issuance costs of $73 attributed to the amount available to be borrowed under Tranche 2 were paid and recorded as deferred financing costs (other assets) and were amortized and recorded to interest expense in 2021 when it was determined that amounts under Tranche 2 would not be borrowed.

The Company paid interest on the MidCap Credit Agreement of $194 during the year ended December 31, 2022.

7. Leases

The Company's lease arrangements at December 31, 2023 consist of (i) a lease for office space at its headquarters in Chicago, Illinois that commenced in July 2020 (the "Chicago Lease") and (ii) leases for office equipment (the "Office Equipment Leases"). The Chicago Lease and the Office Equipment Leases are classified as operating leases.

Chicago Lease

The Company has approximately thirty thousand square feet of office space in Chicago, Illinois (the "Chicago Lease"). The original term (the "Original Term") of the Chicago Lease is 10 years, commencing on July 1, 2020 (the "Commencement Date"), which is the date the premises were ready for occupancy under the terms of the Chicago Lease. The Company has options to extend the term of the Chicago Lease for two additional successive periods of five years each (the "Extension Periods") at the then prevailing effective market rental rate.

The initial annual base rent during the Original Term is approximately $1,113 for the first 12-month period of the Original Term, payable in monthly installments beginning on the Commencement Date. Base rent thereafter is subject to annual increases of 3%, for an aggregate amount of $12,761 over the Original Term. The Company must also pay its proportionate share of certain operating expenses and taxes for each calendar year during the term. During the first 12-month period of the Original Term, the base rent and the Company's proportionate share of operating expenses and taxes are subject to certain abatements.

Upon execution of the Chicago Lease, the Company paid to the landlord the first installment of base rent and the estimated monthly amount of its pro rata share of taxes and its pro rata share of operating expenses in the aggregate amount of $87 which amount had been adjusted for the abatement as set forth in the lease agreement. The Company also paid the landlord a net amount of $697 toward tenant improvements.

As part of the agreement for the Chicago Lease, the Company is required to maintain a standby letter of credit during the term of the lease, currently in the amount of $1,200 and subject to reduction over time, which is secured by a restricted certificate of deposit account and presented within other noncurrent assets on the Company's consolidated balance sheet at December 31, 2023.

The Company recognized a right of use asset of $8,931 and a lease liability of $8,147 on the Commencement Date. Because the rate implicit in the Chicago Lease is not readily determinable, the Company used its incremental borrowing rate of 8.3% on the Commencement Date to determine the present value of the lease payments over the Original Term. The incremental borrowing rate represents an estimate of the interest rate the Company would incur at lease commencement to borrow an amount equal to the lease payments on a collateralized basis over the term of a lease. As of December 31, 2023, the Company determined it is not reasonably certain that the renewal option would not be exercised.

Information related to the Company's operating lease asset and related operating lease liabilities were as follows:

	December 31,	
	2023	2022
Weighted-average remaining lease term	6.5 years	7.5 years
Weighted-average discount rate	8.3 %	8.3 %

The following table summarizes lease costs in the Company's consolidated statement of operations:

	December 31,	
	2023	2022
Operating lease costs	$ 789	$ 1,305
Variable lease costs	690	1,529
Short term lease costs	—	17
Total lease costs	$ 1,479	$ 2,851

The Company made cash payments for operating leases of $1,808 and $3,024 during the years ended December 31, 2023 and 2022, respectively. Currently, the Company is several months past due with its lease payments.

Maturities of the Company's lease liability as of December 31, 2023 were as follows:

Years Ending December 31,	Operating Leases
2024	$ 1,133
2025	1,271
2026	1,310
2027	1,349
2028	1,390
Thereafter	2,158
Total	$ 8,611
Less: imputed interest	(1,946)
Total lease liability	$ 6,665
Current operating lease liability	$ 626
Noncurrent operating lease liability	6,039
Total lease liability	$ 6,665

Sublease of Office Space

The Company entered into a sublease agreement with Cyclopure, Inc. (the "Subtenant") to sublease approximately 57% of its office space pursuant to that certain sublease agreement (the "Sublease Agreement"), dated as of May 4, 2023. The term of the Sublease Agreement began on May 15, 2023 and ends on June 30, 2030, the expiration date of the Chicago Lease. The first three months under the Sublease Agreement are rent free. Beginning August 15, 2023, the Company began charging the Subtenant for 57% of the base rent under the Chicago Lease, and the subtenant is responsible for its pro rata share of operating expenses and taxes payable.

The following table summarizes sublease receipts in the Company's consolidated statement of operations:

	December 31,	
	2023	2022
Sublease receipts	$ 550	$ —
Total	$ 550	$ —

8. Restructuring

September 2022 Restructuring

On September 26, 2022, the Company announced its commitment to a plan to wind down the Company's R&D activities (the "September 2022 Restructuring"). This plan resulted in a reduction in force where the Company reduced approximately 66% of the Company's existing workforce in early fourth quarter of 2022. Notified employees were offered separation benefits, including severance payments and temporary healthcare coverage assistance, the majority of which were paid in October 2022 as a lump sum payment. All of the severance costs associated with the September 2022 Restructuring represented cash expenditures and were recorded within research and development expense within the accompanying consolidated statement of operations.

December 2021 Restructuring

On December 10, 2021, the Company announced its commitment to a plan to wind down the Company's immuno-oncology program for cavrotolimod (AST-008) and the Company's XCUR-FXN preclinical program for the treatment of Friedreich's ataxia. The Company intended at the time to realign its research and development resources to support (i) the development of its preclinical program targeting SCN9A for neuropathic pain, (ii) the continued advancement of its partnered programs with Ipsen Biopharm Limited to develop SNA-based treatments in neuroscience targeting Huntington's disease and Angelman syndrome, (iii) its continued advancement of its partnered program with AbbVie to develop SNA-based treatments for hair loss disorders, as well as (iv) the continued research and development of other undisclosed therapeutic product candidates. This plan resulted in a reduction in force where the Company eliminated approximately 50% of the Company's existing workforce on a staggered basis through January 2022 as well as other cost-cutting measures.

Notified employees were offered separation benefits, including severance payments and temporary healthcare coverage assistance. In most cases, the separation benefits were paid as a lump sum in January 2022. Certain of the notified employees had employment agreements which provided for separation benefits in the form of salary continuation; these benefits were paid between February 2022 and January 2023. All of the severance costs represent cash expenditures.

The following table presents changes in the accrued restructuring liability balance for the periods presented (in thousands):

	December 2021 Restructuring	September 2022 Restructuring	Total
Balance at December 31, 2021	$ 1,191	$ —	$ 1,191
Payments	(1,154)	(489)	(1,643)
Additions	—	488	488
Adjustments (non-cash)	11	1	12
Balance at December 31, 2022	$ 48	$ —	$ 48
Payments	(48)	—	(48)
Balance at December 31, 2023	$ —	$ —	$ —

9. Stockholders' Equity

Preferred Stock

The Company has 10,000,000 shares of preferred stock, par value $0.0001 authorized and no shares issued and outstanding.

Common Stock

The Company has 200,000,000 shares of common stock, par value $0.0001, authorized. As of December 31, 2023 and December 31, 2022, the Company had 8,650,753 and 4,965,901 shares issued and outstanding, respectively.

The holders of shares of the Company's common stock are entitled to one vote per share on all matters to be voted upon by the Company's stockholders and there are no cumulative rights. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of shares of the Company's common stock are entitled to receive ratably any dividends that may be declared from time to time by the Board out of funds legally available for that purpose. In the event of the Company's liquidation, dissolution or winding up, the holders of shares of the Company's common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock then outstanding. The Company's common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the Company's common stock. The outstanding shares of the Company's common stock are fully paid and non-assessable.

September 2022 PIPE

Securities Purchase Agreement

On September 26, 2022, the Company entered into a securities purchase agreement (the "September 2022 Securities Purchase Agreement") with CBI USA, pursuant to which the Company agreed to issue and sell to CBI USA in a private placement an aggregate of 3,400,000 shares of Common Stock, at a purchase price of $1.60 per share. The private placement closed on February 24, 2023 (the "Closing Date"). The Company received gross proceeds of $5,440 from the September 2022 PIPE (or net proceeds of $4,597 after transaction expenses).

CBI USA funded the acquisition pursuant to the Securities Purchase Agreement through a loan from its affiliate, DGP Co., Ltd. ("DGP"). On June 23, 2023, DGP exercised its the option pursuant to the loan and acquired the 3,400,000 shares of Common Stock initially acquired by CBI USA pursuant to the Securities Purchase Agreement. DGP subsequently agreed to sell its shares to a third party, with the closing of 10% (340,000 shares) occurring in February 2024 and the remainder to close by or on June 30, 2024.

The Securities Purchase Agreement, as confirmed and clarified by that certain letter agreement, dated October 31, 2022, between the Company and CBI USA, provided CBI USA together with its affiliates and any "group" of which it or they are a member with the right to designate directors to the Company's board of directors in proportion to the ownership of CBI USA and its affiliates and any such group. CBI USA and DGP have announced they expect to exercise such rights as a group. Together, they beneficially own 45% of the outstanding shares of Common Stock based on their most recent Schedule 13D amendment. As noted above, DGP has entered into an agreement to sell its remaining shares to a third party by or on June 30, 2024.

September 2022 Registration Rights Agreement

In connection with the Securities Purchase Agreement, the Company entered into a registration rights agreement with CBI USA (the "Registration Rights Agreement'). CBI USA assigned its rights under the Registration Rights Agreement to DGP when DGP acquired the 3,400,000 shares of Common Stock initially sold to CBI USA. Pursuant to the Registration Rights Agreement, the Company agreed to file a registration statement covering the resale of the shares of Common Stock sold pursuant to the Securities Purchase Agreement, to use reasonable best efforts to cause

such registration statement to become effective as promptly as practicable, and to keep such registration statement continuously effective until the earlier of (i) the date the shares covered by such registration statement have been sold or may be resold pursuant to Rule 144 without restriction, or (ii) the date that is two (2) years following the Closing Date.

In the event the registration statement was not filed within 90 days following the Closing Date, subject to certain limited exceptions, the Company agreed to make payments as liquidated damages in an amount equal to 0.5% of the aggregate amount invested in the shares of Common Stock pursuant to the Securities Purchase Agreement per 30-day period or pro rata for any portion thereof for each such month during which such event continues, subject to certain caps set forth in the Registration Rights Agreement. We have paid $27 to CBI USA and accrued $191 to DGP pursuant to this provision.

May 2022 PIPE

Securities Purchase Agreement

On May 9, 2022, the Company entered into a securities purchase agreement (the “May 2022 Securities Purchase Agreement”) with certain accredited investors (the “Investors”), pursuant to which the Company agreed to issue and sell to the Investors in a private placement an aggregate of 867,369 shares (the “May 2022 PIPE Shares”) of the Company’s Common Stock, par value $0.0001 per share, at a purchase price of $5.81 per share (the “May 2022 PIPE”). The May 2022 PIPE closed on May 18, 2022 (the “May 2022 PIPE Closing Date”). The Company received aggregate net proceeds from the May 2022 PIPE of approximately $4,886 after deducting transaction-related expenses.

Registration Rights Agreement

Also, on May 9, 2022, the Company entered into a registration rights agreement (the “May 2022 Registration Rights Agreement”) with the Investors, pursuant to which the Company agreed to register the resale of the May 2022 PIPE Shares. Under the May 2022 Registration Rights Agreement, the Company agreed to file a registration statement covering the resale of the Shares no later than July 18, 2022. On July 11, 2022, the Company filed a registration statement on Form S-3 with the SEC for the resale of the Shares and caused the registration statement to become effective on July 20, 2022.

The Company has granted the Investors customary indemnification rights in connection with the registration statement. The Investors have also granted the Company customary indemnification rights in connection with the registration statement.

EXICURE, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(in thousands, except share and per share data)

Registered Direct Offering

On December 16, 2021, the Company completed a securities purchase agreement (the “Purchase Agreement”) with certain institutional purchasers (the “Purchasers”) entered into on December 14, 2021, pursuant to which the Company offered to the Purchasers, in a registered direct offering priced at-the-market consistent with the rules of the Nasdaq Stock Market (the “Registered Direct Offering”), (i) an aggregate of 433,553 shares (the “Shares”) of the Company’s common stock, $0.0001 par value per share, (ii) pre-funded warrants to purchase up to an aggregate of 718,981 shares of Common Stock (the “Pre-Funded Warrants”), and (iii) warrants to purchase up to 576,261 shares of Common Stock (the “Warrants”). The combined purchase price of each share of Common Stock and accompanying Warrant is $9.9780 per share. The combined purchase price of each Pre-Funded Warrant and accompanying Warrant is $9.9480 (equal to the combined purchase price per share of Common Stock and accompanying Warrant, minus $0.03). The per share exercise price for the Warrants is $8.1031, the closing bid price of the Company’s Common Stock on December 13, 2021 (and as adjusted for the reverse stock split referenced in Note 1). The Warrants will be exercisable immediately from the closing December 16, 2021, and will expire on the five-year anniversary of the date of issuance, or December 16, 2026. The Pre-Funded Warrants and Warrants, which met equity classification, were recognized as a component of permanent stockholders’ equity within additional paid-in-capital together with the net proceeds from the Registered Direct Offering. The gross proceeds to the Company from the Registered Direct Offering (excluding effect of subsequent exercises of pre-funded warrants) were $11,478 and net proceeds after deducting the placement agent’s fees and other offering expenses paid or payable by the Company were $10,226. The securities were offered by the Company pursuant to an effective shelf registration statement on Form S-3 (File No. 333-251555) previously filed with the Securities and Exchange Commission (the “SEC”) on December 21, 2020, and which was declared effective by the SEC on January 7, 2021 (the “Registration Statement”).

Each Warrant is exercisable for one share of Common Stock at an exercise price of $8.1031 per share. The Warrants are immediately exercisable as of the date of issuance of December 16, 2021 and will expire on the five-year anniversary of the date of issuance, or December 16, 2026. The Pre-Funded Warrants were offered in lieu of shares of Common Stock to one of the Purchasers whose purchase of shares of Common Stock in the Registered Direct Offering would otherwise result in said Purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the Purchaser, 9.99%) of the Company’s outstanding Common Stock immediately following the consummation of the Registered Direct Offering. Each Pre-Funded Warrant is exercisable for one share of Common Stock at an exercise price of $0.030 per share. The Pre-Funded Warrants are immediately exercisable and may be exercised at any time until all of the Pre-Funded Warrants are exercised in full.

A holder (together with its affiliates) of the Warrant or Pre-Funded Warrant may not exercise any portion of the Warrant or Pre-Funded Warrant, as applicable, to the extent that the holder would own more than 4.99% (or, at the holder’s option upon issuance, 9.99%) of the Company’s outstanding Common Stock immediately after exercise, as such percentage ownership is determined in accordance with the terms of the Warrant or Pre-Funded Warrant, as applicable. In lieu of making the cash payment otherwise contemplated to be made to the Company upon exercise of a Warrant in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of Common Stock determined according to a formula set forth in the Warrants, provided that such cashless exercise shall only be permitted if the Registration Statement is not effective at the time of such exercise or if the prospectus to which the Registration Statement is a part is not available for the issuance of shares of Common Stock to the Warrant holder.

In lieu of making the cash payment otherwise contemplated to be made to the Company upon exercise of a Pre-Funded Warrant in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of Common Stock determined according to a formula set forth in the Pre-Funded Warrants.

Common Stock Warrants

In January 2022, Pre-Funded Warrants were exercised for a total exercise price of $14, resulting in the issuance of 466,666 shares of common stock. As of December 31, 2023, there are no unexercised pre-funded warrants that are outstanding.

Warrants to purchase 576,261 shares of common stock at a price of $8.1031 per share that were acquired in the December 2021 registered-direct offering transaction remained outstanding. The warrants are classified as equity. As a result of the closing of the September 2022 PIPE, a warrant holder elected to exercise their option within 30 days of the closing of the September 2022 PIPE (February 24, 2023) to receive a cash payout for the outstanding warrants in the amount of the Black-Scholes value of each warrant as prescribed in the warrant agreement. The Company paid $800 to this warrant holder on June 23, 2023 and 526,151 warrants were settled as a result. As of December 31, 2023, warrants to purchase 50,110 shares of common stock at a price of $8.031 per share that were acquired in the December 2021 registered-direct offering transaction remain outstanding.

10. Equity-Based Compensation

2017 Equity Incentive Plan

On September 22, 2017, the Company’s stockholders approved the Exicure, Inc. 2017 Equity Incentive Plan (the “2017 Plan”), which became effective on November 15, 2017. The 2017 Plan provides for the issuance of incentive awards of up to 194,750 shares of Exicure common stock, which includes 72,330 shares of Exicure common stock to be issued to officers, employees, consultants and directors, plus a number of shares not to exceed 122,793 that are subject to issued and outstanding awards under the Exicure OpCo 2015 Equity Incentive Plan (the “2015 Plan”) and were assumed in the merger transaction on September 26, 2017. Awards that may be awarded under the 2017 Equity Incentive Plan include non-qualified and incentive stock options, stock appreciation rights, bonus shares, restricted stock, restricted stock units, performance units and cash-based awards. The number of shares of common stock reserved for issuance under the 2017 Equity Incentive Plan automatically increases on January 1 of each year, beginning on January 1, 2020, by the lesser of (i) 153,333 shares, (ii) 5% of the total number of shares of its capital stock outstanding on December 31 of the preceding calendar year, or (iii) a lesser number of shares determined by the Compensation Committee of the Board (the “Compensation Committee”). No future awards will be made under the 2015 Plan upon the effectiveness of the 2017 Plan. On January 1, 2024, pursuant to the terms of the 2017 Plan, the number of awards that are reserved and may be awarded under the 2017 Plan was automatically increased by 153,333 awards. As of December 31, 2023, the aggregate number of awards available for grant under the 2017 Plan was 454,636.

Awards granted under the 2017 Plan are contingent on the participants’ continued employment or provision of non-employee services and are subject to forfeiture if employment or continued service terminates for any reason. The initial award granted to an employee or consultant generally vests 25% on the first 12-month anniversary of the grant date and vests 1/48th monthly thereafter until fully vested at the end of 48 months. Subsequent awards granted to employees or consultants generally vest 1/48th monthly until fully vested at the end of 48 months. The initial stock option grant to a non-employee director vests 1/36th monthly until fully vested at the end of 36 months. Subsequent stock option grants to a non-employee director vests 1/12th monthly until fully vested at the end of 12 months. The term of common stock option grants is 10 years unless terminated earlier as described above.

Employee Stock Purchase Plan

The 2017 Employee Stock Purchase Plan (the "ESPP") was adopted by the Board in September 2017 and approved by the Company's stockholders in September 2017. Through the ESPP, eligible employees may authorize payroll deductions of up to 15% of their compensation to purchase common stock. The maximum number of shares that an employee may purchase on any exercise date in an offer period will be the smaller of (i) 250 shares or (ii) such number of shares as has a fair market value (determined as of the offering date for such offer period) equal to $25,000 within one calendar year minus the fair market value of any other shares of common stock that are attributed to such calendar year. The purchase price per share at each purchase date is equal to 85% of the lower of (i) the closing market price per share of Exicure common stock on the employee's offering date or (ii) the closing market price per share of Exicure common stock on the exercise date. Each offering period is approximately six-months in duration and the first offering period began on November 16, 2020 and ended on May 14, 2021. During 2022, the Company issued 1,851 shares of common stock that were purchased under the ESPP. No shares were issued during 2023.

The ESPP provides that the number of shares reserved and available for issuance will automatically increase each January 1, beginning on January 1, 2018 and each January 1 thereafter through January 1, 2027, by the least of (i) 10,000 shares; (ii) 0.3% of the outstanding shares of common stock on the last day of the immediately preceding calendar year; or (iii) a lesser number of shares determined by the Board. As of December 31, 2023, there were 51,971 shares available for issuance under the ESPP. On January 1, 2024, the number of shares of common stock available for issuance under the ESPP increased by 10,000 shares.

Equity-based compensation expense is classified in the statements of operations as follows:

	Year Ended December 31,	
	2023	2022
Research and development expense	$ 154	$ 507
General and administrative expense	1,194	862
	$ 1,348	$ 1,369

Unamortized equity-based compensation expense at December 31, 2023 was $619, which is expected to be amortized over a weighted-average period of 1.9 years.

The Company utilizes the Black-Scholes option-pricing model to determine the fair value of common stock option grants. The Black-Scholes option-pricing model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. The model also requires the input of highly subjective assumptions. In addition to an assumption on the expected term of the option grants as discussed below, application of the Black-Scholes model requires additional inputs for which we have assumed the values described in the table below:

	Year Ended December 31,	
	2023	2022
Expected term	5.8 to 5.8 years	5.3 to 6.1 years
Risk-free interest rate	3.83% to 3.83%; weighted avg. 3.83%	2.86% to 3.56%; weighted avg. 2.90%
Expected volatility	100.9% to 100.9%; weighted avg. 100.9%	95.2% to 95.8%; weighted avg. 95.2%
Forfeiture rate	5 %	5 %
Expected dividend yield	— %	— %

The expected term is based upon the "simplified method" as described in Staff Accounting Bulletin Topic 14.D.2. Currently, the Company does not have sufficient experience to provide a reasonable estimate of an expected term of its common stock options. The Company will continue to use the "simplified method" until there is sufficient experience to provide a more reasonable estimate in conformance with ASC 718-10-30-25 through 30-26. The risk-free interest rate assumptions were based on the U.S. Treasury bond rate appropriate for the expected term in effect at the time of grant. For stock options granted after December 31, 2021, the expected volatility is based on the volatility of shares of the Company. For stock options granted prior to January 1, 2022, the expected volatility is based on calculated enterprise value volatilities for publicly traded companies in the same industry and general stage of development. The estimated forfeiture rates were based on historical experience for similar classes of employees. The dividend yield was based on expected dividends at the time of grant.

The fair value of the underlying common stock and the exercise price for the common stock options granted during the years ended December 31, 2023 and 2022 are summarized in the table below:

Common Stock Options Granted During Period Ended:	Fair Value of Underlying Common Stock	Exercise Price of Common Stock Option
Year ended December 31, 2023	$1.58; weighted avg. $1.58	$1.58; weighted avg. $1.58
Year ended December 31, 2022	$3.46 to $5.51; weighted avg. $4.56	$3.46 to $5.51; weighted avg. $4.56

The weighted-average grant date fair value of common stock options granted in the years ended December 31, 2023 and 2022 was $1.26 and $2.52 per common stock option, respectively.

A summary of common stock option activity as of the periods indicated is as follows:

	Options	Weighted-Average Exercise Price [(1)]	Weighted-Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (thousands)
Outstanding - December 31, 2021	331,420	$ 61.82	7.0	$ —
Granted	232,028	4.56		
Settled	(124)	5.51		
Forfeited	(340,491)	60.18		
Outstanding - December 31, 2022	222,833	$ 4.74	7.5	$ —
Granted	10,000	1.58		
Settled	—	—		
Forfeited	(220,718)	5.40		
Outstanding - December 31, 2023	12,115	$ 4.28	5.4	$ —
Exercisable - December 31, 2023	12,115	$ 4.26	5.4	$ —
Vested and Expected to Vest - December 31, 2023	12,115	$ 4.28	5.4	$ —

(1) On March 24, 2022, the Company's Board of Directors unanimously approved the repricing of all outstanding and unexercised stock options granted under our 2015 Equity Incentive Plan and 2017 Equity Incentive Plan and held by its current employees, executive officers, and directors. Effective April 1, 2022, the exercise price of the eligible stock options was reduced to $5.51, the closing price of our common stock on April 1, 2022. See below section titled "Repricing of Outstanding and Unexercised Options" for more information.

A summary of restricted stock unit activity of the periods indicated is as follows:

	Restricted Stock Units	Weighted-Average Grant Date Fair Value
Unvested balance - December 31, 2021	10,109	$ 50.04
Granted	51,536	3.42
Vested	(5,535)	22.04
Forfeited	(35,225)	4.75
Unvested balance - December 31, 2022	20,885	$ 12.65
Granted	295,992	1.02
Vested	(309,026)	1.91
Forfeited	(4,808)	14.58
Unvested balance - December 31, 2023	3,043	$ 10.41

The grant date fair value of restricted stock units is based on the Company's closing stock price at the date of grant. At vesting, each outstanding restricted stock unit will be exchanged for one share of the Company's common stock. The restricted stock units granted in the past generally vest evenly on a quarterly basis over a period of 4 years in exchange for continued service provided by the restricted stock unit recipient during that vesting period.

A summary of performance-based restricted stock unit activity of the periods indicated is as follows:

	Restricted Stock Units	Weighted-Average Grant Date Fair Value
Unvested balance - December 31, 2021	—	$ —
Granted	97,643	3.45
Unvested balance - December 31, 2022	97,643	$ 3.45
Granted	—	—
Settled	(97,643)	1.91
Unvested balance - December 31, 2023	—	$ —

The grant date fair value of performance-based restricted stock units is based on the Company's closing stock price at the date of grant. At vesting, each outstanding restricted stock unit will be exchanged for one share of the Company's common stock. Certain performance metrics must be met by the performance measurement date in 2023 in order for the performance-based restricted stock units granted during 2022 to vest as follows: one-third on May 16, 2023, one-third on May 16, 2024, and one-third on May 16, 2025, in exchange for continued service provided by the performance-based restricted stock unit recipient during that vesting period.

Repricing of Outstanding and Unexercised Options

On March 24, 2022, the Board unanimously approved the repricing of all outstanding and unexercised stock options granted under the 2015 Plan and 2017 Plan (the "Plans") and held by current employees, executive officers, and directors of the Company (the "Eligible Stock Options"). Effective April 1, 2022, the exercise price of the eligible stock options was reduced to $5.51, the closing price of its common stock on April 1, 2022. Except for the modification to the exercise price of the Eligible Stock Options, all other terms and conditions of each of the Eligible Stock Options will remain in full force and effect.

Pursuant to the Plans, the Board, as the administrator of the Plans, has discretionary authority, exercisable on such terms and conditions that it deems appropriate under the circumstances, to reduce the exercise price in effect for outstanding options under the Plans. In approving the repricing, the Board considered the impact of the current

exercise prices of outstanding stock options on the incentives provided to employees and directors, the lack of retention value provided by the outstanding stock options to employees and directors, and the impact of such options on the capital structure of the Company. As of March 24, 2022, there were 233,224 stock options outstanding under the Plans, and all of the Company's outstanding stock options had exercise prices in excess of the current fair market value of the Company's common stock as of March 24, 2022, which is why the Board made the determination to deem all outstanding and unexercised stock options held by current employees, executive officers, and directors as Eligible Stock Options.

The option repricing resulted in incremental stock-based compensation of $213 recorded as expense in the year ended December 31, 2022. Most of the individuals holding stock options left the Company in early 2023 resulting in minimal expense recognition in 2023 as their options were forfeited upon departure.

11. Income Taxes

Pre-tax loss before income taxes was $16,914 and $2,373 for the years ended December 31, 2023 and 2022, respectively, which consists entirely of losses in the U.S. and resulted in $0 and $209 provision for income tax expense during the years then ended, respectively.

Components for the provision for income taxes consist of the following:

	Year Ended December 31,	
	2023	2022
Current		
Federal	$ —	$ 115
State and local	—	94
Total current tax expense	$ —	$ 209
Deferred		
Federal	$ —	$ —
State and local	—	—
Total deferred tax expense	$ —	$ —
Provision for income tax expense	$ —	$ 209

EXICURE, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(in thousands, except share and per share data)

The differences between income taxes computed using the U.S. federal income tax rate and the provision for income taxes are as follows:

	Year Ended December 31,			
	2023		2022	
Federal income tax expense at statutory rate	$ (3,552)	21.0 %	$ (498)	21.0 %
State income tax expense at statutory rate	(1,167)	6.9	(87)	3.7
Permanent differences	285	(1.7)	108	(4.6)
Research and development credit	—	—	(31)	1.3
Federal and state rate differential	72	(0.5)	(16)	0.7
Change in valuation allowance	(39,891)	236.9	733	(30.9)
Reduction of worthless attributes	44,253	(262.6)	—	—
	$ —	— %	$ 209	(8.8)%

The effective tax rate for the year ended December 31, 2023 is attributable to the fact that the Company is subject to the IRC Sec. 174 regulations requiring companies to capitalize certain research and experimental expenditures and IRC Sec. 382 loss limitation rules on the Company's ability to utilize net operating losses to offset the capitalization requirement. The effective income tax rate for the year ended December 31, 2023 was 0% because the Company generated tax losses and provided a full valuation allowance against its deferred tax assets to an amount that is more likely than not to be realized.

The significant components of the Company’s net deferred tax assets are as follows:

	December 31,	
	2023	2022
Deferred Tax Assets		
Net operating losses	$ 3,145	$ 36,331
Tax credits	—	472
Capitalized R&D expenses	741	5,795
Intangibles	—	117
Accrued expenses	41	40
Operating lease liability	1,900	2,097
Equity-based compensation	—	1,874
Investment Loss Adjustment	570	—
Other	—	56
Less: Valuation allowance	(4,250)	(44,145)
Total deferred tax assets	2,147	2,637
Deferred Tax Liabilities		
Prepaid expenses	(217)	(262)
Fixed assets and other	(15)	(292)
Deferred Rent	(57)	—
Right-of-use asset	(1,858)	(2,083)
Total deferred tax liabilities	(2,147)	(2,637)
Deferred taxes, net	$ —	$ —

The Company’s effective income tax rate for the year ended December 31, 2023 is $0. The Company has recorded a full valuation allowance against its deferred tax assets. This determination is based on significant negative evidence, including:

- *Cumulative losses:* The Company has been in a significant cumulative loss position since its inception in 2011.
- *Projected realization of net operating loss carry forward amounts:* Projections of future pre-tax book loss and taxable losses based on the Company's recent actual performance and current industry data indicate it is more likely than not that the benefits will not be recognized.

At December 31, 2023, the Company had a federal net operating loss carryforward of $11,034, which are indefinitely lived. At December 31, 2023, the Company had $11,033 of state net operating loss carryforwards, which will begin to expire in 2043.

We experienced an “ownership change” within the meaning of Section 382(g) (“Section 382”) of the Internal Revenue Code of 1986, as amended, during the fourth quarter of 2022. In general, the annual use limitation equals the aggregate value of our stock at the time of the ownership change multiplied by a specified tax-exempt interest rate.

We determined that at the date of the 2022 ownership change, we had a net unrealized built-in loss (“NUBIL”). The NUBIL was determined based on the difference between the fair market value of our assets and their tax basis as the ownership change date. Because of the NUBIL, certain deductions recognized during the five-year period beginning on the date of the IRC Section 382 ownership change (the “recognition period”) are subject to the same limitation as the net operating loss carryforwards or certain other deductions. As of 2023, the business model has

substantially changed which fully limits our ability to recognize these deductions. As the Company disposed of the majority of their operating business, they are subject to a zero limitation under Section 382 of the Internal Revenue Code which makes the net operating losses unusable. Accordingly, the Company has not recorded federal and state net operating losses from prior to ownership change.

At December 31, 2023 and 2022, the Company had no unrecognized tax benefits. The Company's estimate of the potential outcome of any uncertain tax positions is subject to management's assessment of relevant risks, facts and circumstances existing at that time. The Company evaluates uncertain tax positions to determine if it is more-likely-than-not that they would be sustained upon examination. The Company recognizes interest and penalties related to unrecognized tax benefits in the provision for income taxes.

The Company is subject to taxation in the U.S. and various state jurisdictions. The Company remains subject to examination by U.S. federal and state tax authorities for the years 2019 through 2023. There are no pending examinations in any jurisdiction.

12. Loss Per Common Share

Basic loss per common share is calculated by dividing net loss by the weighted-average number of shares of common stock outstanding during the period. Diluted loss per common share is calculated using the treasury share method by giving effect to all potentially dilutive securities that were outstanding. Potentially dilutive options, restricted stock units and warrants to purchase common stock that were outstanding during the periods presented were excluded from the diluted loss per share calculation for the periods presented because such shares had an anti-dilutive effect due to the net loss reported in those periods. Therefore, basic and diluted loss per common share is the same for each of the years ended December 31, 2023 and 2022.

The following is the computation of loss per common share for the years ended December 31, 2023 and 2022:

	Year Ended December 31,	
	2023	2022
Net loss	$ (16,914)	$ (2,582)
Weighted-average basic and diluted common shares outstanding	8,013,840	4,619,471
Loss per share - basic and diluted	$ (2.11)	$ (0.56)

The outstanding securities presented below were excluded from the calculation of loss per common share, for the periods presented, because such securities would have been anti-dilutive due to the Company’s loss per share during that period:

	December 31,	
	2023	2022
Options to purchase common stock	12,115	222,833
Restricted stock units	3,043	20,885
Performance stock units	—	97,643
Warrants to purchase common stock	50,110	576,261

13. Fair Value Measurements

ASC Topic 820, *Fair Value Measurement*, establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value, as follows: Level 1 Inputs - unadjusted quoted prices in active markets for identical assets or liabilities accessible to the reporting entity at the measurement date; Level 2 Inputs - other than quoted prices included in Level 1 inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability; and Level 3 Inputs - unobservable inputs for the asset or liability used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at measurement date.

Assets measured at fair value on a recurring basis as of December 31, 2023 are as follows:

	Total	Level 1	Level 2	Level 3
Assets				
Cash equivalents:				
Money market funds	$ 418	$ 418	$ —	$ —
Short-term investments:				
Investment in convertible notes receivable	—		—	—
Total financial assets	$ 418	$ 418	$ —	$ —

Assets measured at fair value on a recurring basis as of December 31, 2022 are as follows:

	Total	Level 1	Level 2	Level 3
Assets				
Cash equivalents:				
Money market funds	$ 1,612	$ 1,612	$ —	$ —
Total financial assets	$ 1,612	$ 1,612	$ —	$ —

The Company uses the market approach and Level 1 and Level 2 inputs to value its cash equivalents and Level 2 inputs to value its short-term investments. The Company uses the market approach and Level 3 inputs to value its liabilities. There were no liabilities measured at fair value on a recurring basis as of December 31, 2022.

Warrant Liability

A summary of the warrant liability activity for the year ended December 31, 2023 is as follows:

	Warrants Outstanding	Fair Value Per Share	Fair Value
(in thousands, except per share data)			
Balance at December 31, 2022	—	$ —	$ —
Option to exercise	526	$ 1.52	$ 800
Payment to warrant holder	(526)	$ 1.52	$ (800)
Balance at December 31, 2023	— 0	$ —	—

Investment in convertible notes receivable

A summary of the AFS securities activity for the year ended December 31, 2023 is as follows:

	Fair Value
Balance at December 31, 2022	$ —
Investment in available for sale securities	2,000
Change in fair value of investment in convertible notes receivable	(2,000)
Balance at December 31, 2023	$ —

As of December 31, 2023, management does not believe these AFS investments are recoverable and recorded a change in fair value of $2,000.

There were no transfers between Level 1, 2, or 3, during the years ended December 31, 2023, and 2022. Both observable and unobservable in puts were used to determine fair value of the positions that the Company classified within the Level 3 category. Unrealized gains and losses associated with the liabilities within the Level 3 category include changes in fair value that were attributable to both observable and unobservable inputs.

14. Defined Contribution Plan

Exicure maintains a defined contribution savings plan for the benefit of its employees. Company contributions are determined under various formulas. The expense recognized for this plan was $119 and $276 for the years ended December 31, 2023 and 2022, respectively.

15. Commitments and Contingencies

Legal Proceedings

On December 13, 2021, Mark Colwell filed a putative securities class action lawsuit against the Company, David A. Giljohann and Brian C. Bock in the United States District Court for the Northern District of Illinois, captioned Colwell v. Exicure, Inc. et al., Case No. 1:21-cv-0663. On February 4, 2021, plaintiff filed an amended putative securities class action complaint. On March 20, 2023, the court entered an order appointing James Mathew as lead plaintiff and Bleichmar Fonti & Auld LLP as lead counsel in the action pursuant to the Private Securities Litigation Reform Act of 1995. On May 26, 2023, lead plaintiff filed a second amended complaint against the Company, Dr. Giljohann, Mr. Bock, and Grant Corbett. The second amended complaint alleges that Dr. Giljohann, Mr. Bock, and Dr. Corbett made materially false and/or misleading statements related to the Company's clinical programs purportedly causing losses to investors who acquired Company securities between January 7, 2021 and December 10, 2021. The second amended complaint does not quantify any alleged damages but, in addition to attorneys' fees and costs, lead plaintiff seeks to recover damages on behalf of himself and others who acquired the Company's stock during the putative class period at allegedly inflated prices and purportedly suffered financial harm as a result. The parties filed a joint status report noting the mediation efforts taken by the parties. The report also proposes a litigation schedule going forward, which the Court adopted: plaintiff's third amended complaint is due on or before June 28, 2024, and any motion to dismiss is due on or before August 27, 2024, with response due on or before October 8, 2024 and any reply due on or before November 5, 2024. Accordingly, the status hearing set for May 22, 2024 is reset to July 23, 2024.

On March 1, 2022, Kapil Puri filed a shareholder derivative lawsuit on behalf of the Company in the United States District Court for the Northern District of Illinois, against Dr. Giljohann and Mr. Bock, Jeffrey L. Cleland, Elizabeth Garofalo, Bosun Hau, Bali Muralidhar, Andrew Sassine, Matthias Schroff, James Sulat and Timothy Walbert, captioned Puri v. Giljohann, et al., Case No. 1:22-cv-01083. On March 8, 2022, Yixin Sim filed a similar shareholder derivative lawsuit in the same court against the same individuals, captioned Sim v. Giljohann, et al., Case No. 1:22-cv-01217. On April 25, 2022, Stourbridge Investments LLC filed a similar shareholder derivative lawsuit against the same individuals in the United States District Court for the District of Delaware, captioned Stourbridge Investments LLC v. Exicure, Inc. et al., Case No. 1:22-cv-00526. Based on similar factual allegations presented in the Colwell complaint, described above, the Puri, Sim, and Stourbridge complaints (collectively, the

"Derivative Complaints") allege that the defendants caused the Company to issue false and/or misleading statements in the proxy statement for its 2021 Annual Meeting of Stockholders regarding risk oversight, code of conduct, clinical program and compensation matters, among other things, in violation of federal securities law, and committed breaches of fiduciary duties. The Derivative Complaints also assert that Dr. Giljohann and Mr. Bock are liable for contribution under the federal securities laws. The Puri and Stourbridge complaints further assert state law claims for unjust enrichment, and the Puri complaint additionally asserts state law claims for abuse of control, gross mismanagement and corporate waste. The plaintiffs do not quantify any alleged damages in the Derivative Complaints, but seek restitution for damages to the Company, attorneys' fees, costs, and expenses, as well as an order directing that certain proposals for strengthening board oversight be put to a vote of the Company's shareholders.

On March 18, 2022, James McNabb, through counsel, sent a written demand to the Company (the "Demand Letter") demanding that the Board of Directors investigate certain allegations and commence proceedings on the Company's behalf against certain of the Company's officers and directors for alleged breaches of fiduciary duties and corporate waste. All of the Derivative Cases have been stayed pending a decision on any motion to dismiss that may be filed in the Colwell case. In addition, the Stourbridge case has been administratively closed pending the decision on motion to dismiss that may be filed in the Colwell case. Further, pursuant to agreement, the Demand Letter is being held in abeyance and any related statute of limitations tolled pending such motion and decision.

On October 3, 2023, a former employee filed a complaint against the Company and its executives related to the former employee's separation from the Company. The parties will proceed with paper discovery and an in-person settlement conference is scheduled for June 26, 2024.

Leases

Refer to Note 7, *Leases*, for a discussion of the commitments associated with the Company's lease agreements.

Northwestern University License Agreements

On December 12, 2011, (1) AuraSense, LLC, the Company's former parent, assigned to the Company all of its worldwide rights and interests under AuraSense, LLC's 2009 license agreement with Northwestern University ("NU") in the field of the use of nanoparticles, nanotechnology, microtechnology or nanomaterial-based constructs as therapeutics or accompanying therapeutics as a means of delivery, but expressly excluding diagnostics (the "assigned field"); (2) in accordance with the terms and conditions of this assignment, the Company assumed all liabilities and obligations of AuraSense, LLC as set forth in its license agreement in the assigned field; and (3) in order to secure this assignment and the patent rights from NU, the Company agreed (i) to pay NU an annual license fee, which may be credited against any royalties due to NU in the same year, (ii) to reimburse NU for expenses associated with the prosecution and maintenance of the license patent rights, (iii) to pay NU royalties based on any net revenue generated by the Company's sale or transfer of any licensed product, (iv) to pay NU, in the event the Company grants a sublicense under the licensed patent rights, the greater of a percentage of all sublicensee royalties or a percentage of any net revenue generated by a sublicensee's sale or transfer of any licensed product, and (v) to pay NU a percentage of all other sublicense payments received by the Company. In August 2015, the Company entered into a restated license agreement with NU (the "Restated License Agreement"). In February 2016, the Company obtained exclusive license as to NU's rights in certain SNA technology it jointly owns with NU (the "Co-owned Technology License"). The Company's license to NU's rights is limited to the assigned field, however the Company has no such limitation as to its own rights in this jointly owned technology. The Company's rights and obligations in the Co-owned Technology License agreement is substantially the same as in the Restated License Agreement from August 2015 (collectively referred to as "the Northwestern University License Agreements"). As of December 31, 2023, the Company has paid to NU an aggregate of $11,567 in consideration of each of the obligations described above.

On August 3, 2023, the company received a notice letter (the "Letter") from counsel for NU alleging the Company breached the Northwestern University License Agreements. The Letter alleges that a lack of development required under the Northwestern University License Agreements is a breach. The Northwestern University License Agreements were subsequently terminated on September 10, 2023 and October 3, 2023, respectively.

16. Related-Party Transactions

Pursuant to a Consulting Agreement, effective as of September 25, 2022, between the Company and Alta Companies LTD ("Alta"), the Company paid Alta $218 on February 27, 2023 for a consulting fee earned as a result of the September 2022 PIPE closing. Paul Kang, a director of the Company since February 2023 and the CEO of the Company since August 2023, is the President of Alta.

17. Subsequent Events

On February 5, 2024, the Company entered into a patent license agreement to develop cavrotolimod for potential treatment for hepatitis with a private clinical stage biopharmaceutical company. Under the terms of the agreement, this biopharmaceutical company will receive an exclusive license in the field of hepatitis to all of Exicure's relevant patents. An initial payment of $500 was paid to Exicure after the execution of this agreement that was recorded as other income. Exicure will also be entitled to modest royalties on future net sales on all licensed technology during the term of the licensed patents. Exicure will be responsible for, and make all decisions concerning, the preparation, filing, prosecution, and maintenance for each patent and patent application included within the licensed patents.

On May 3, 2024, the Company executed a promissory note ("Note") and subsequently received a loan in the amount of $300 from an individual investor. All principal and accrued interest will be due and payable on the earlier of (i) the 1st anniversary of the date of this Note or (ii) upon an event of default, at that time, such amounts declared by the investor will become due and payable by Company. Interest will accrue on this Note at 6.0% and is payable at maturity.

On June 3, 2024, the Company executed another promissory note ("DGP Note") and subsequently received a loan in the amount of $700 from DGP, a related party. All principal and accrued interest will be due and payable on the earlier of (i) ten months from the date of this DGP Note or (ii) upon an event of default, at that time, such amounts declared by the investor will become due and payable by Company. Interest will accrue on this DGP Note at 6.0% and is payable at maturity.

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

None.

Item 9A. Controls and Procedures.

Limitations on Effectiveness of Controls

In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Evaluation of Disclosure Controls and Procedures

We maintain "disclosure controls and procedures" as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, that are designed to ensure that information required to be disclosed in our periodic and current reports that we file with the SEC under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Our management, with the participation of our principal executive officer and our principal financial officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2023. Based on the evaluation of our disclosure controls and procedures as of December 31, 2023, our principal executive officer and principal financial officer concluded that, as of such date, our disclosure controls and procedures were not effective at the reasonable assurance level due to the material weakness described below.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act). Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2023 based on the guidelines established in Internal Control-Integrated Framework 2013 issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Based on the results of its evaluation, management concluded that our internal control over financial reporting was not effective as of December 31, 2023.

Attestation Report of the Registered Public Accounting Firm

This Annual Report on Form 10-K does not include an attestation report of our independent registered public accounting firm as we are a non-accelerated filer as of December 31, 2023.

Material Weakness in Internal Control Over Financial Reporting

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis.

Management identified material weaknesses in the Company's internal control over financial reporting related to the following:

1. The precision of management's review of the Statement of Operations, resulting in inappropriately classifying certain general and administrative expenses as research and development expenses for the three months ended March 31, 2023, and three and six months ended June 30, 2023.
2. Management's review of the accounting treatment of non-routine activities, specifically the Company's analysis of the AFS securities.
3. The Company failed to design and implement controls around all accounting and information technology processes and procedures.

These matters have been reviewed with our Audit Committee.

Remediation Plan

We are evaluating the material weakness and are developing a plan of remediation to strengthen the effectiveness of the design and operation of our internal control environment. The remediation plan will include enhancing our review procedures within our accounting department, implementing additional review procedures with respect to accumulation and evaluation of information that is known or knowable to the Company at the time, and applying that information to the applicable accounting guidance. Subject to our ability to obtain additional financing and the results of our review of strategic alternatives, we will also consider whether additional personnel are necessary.

Changes in Internal Control over Financial Reporting

Other than as described above, there were no changes in our internal control over financial reporting during the fiscal quarter ended December 31, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

During the quarter ended December 31, 2023, no director or officer of the Company adopted or terminated a "Rule 10b5- 1 trading arrangement" or "non-Rule 10b5- 1 trading arrangement," as each term is defined in Item 408(a) of Regulation S-K..

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections.

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Directors

Our Board of Directors is divided into three classes. Each class consists, as nearly as possible, of one-third of the total number of directors, and each class has a three-year term. Any vacancies on our Board of Directors resulting from death, resignation, disqualification, removal or other causes, and any newly created directorships resulting from any increase in the number of directors, shall be filled by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors. Any director elected to fill a vacancy shall hold office for the remainder of the unexpired term in which the vacancy occurred or newly created directorship was created and until such director’s successor shall have been elected and qualified.

Our Board of Directors presently has 6 directors. Minhee Eom, Jiyoung Hwang, Paul Kang, Raymond Ko, Dongho Lee, and Hojoon Lee. Ms. Hwang and Mr. Kang were delegated to the Board of Directors by CBI pursuant to its rights under the Securities Purchase Agreement, and Mr. Hojoon Lee, although not formally delegated by CBI, is also affiliated with CBI.

Class III Directors (Term Expired 2023)

Paul Kang, age 62, has served as a member of our Board of Directors since February 2023 and served as CEO and President since August 21, 2023. Mr. Kang began his 35-year investment and merger advisory career at Goldman Sachs in New York. He also served as CEO of Alta Capital Group, focusing on cross border merchant banking. He began his career as a brand manager at Procter & Gamble in Cincinnati. Mr. Kang has served as an interim CEO for a range of industries, and his investment experience includes leading the acquisition for KBL Healthcare Acquisition Corp., the first successful healthcare SPAC. His biopharma experience began with advising LG on the first Korean FDA-approved drug in the late 90s. He received his A.B. in applied mathematics from Harvard College and his M.B.A. from the Stanford Graduate School of Business. Mr. Kang’s experience in finance and working with companies in a range of industries qualifies him to serve on the Board.

Hyuk Joon (Raymond) Ko, age 56, has served as a member of our Board of Directors since August 2023. Mr. Ko has been an Internal Auditor at Woori Bank since 2022. Prior to that, Mr. Ko was the CFO of XEME Biopharma Holdings Inc. during 2021, where he supervised audit preparations and supervised and approved budgeting, expenditure, and finance of its subsidiary, XEME Biopharma, Inc. as the company prepared for a potential Regulation A offering. Prior to being the CFO of XEME, he has 10 years of experience working as a financial accountant at various U.S. accounting firms. Mr. Ko has a Bachelor’s degree in Business Administration from Seoul National University, a Master’s degree in Economics and Econometrics from Iowa State University, a Master’s degree in Operation Research and Information Engineering and Financial Engineering from Cornell University, and a Master of Taxation and International Tax from University of Denver. He is certified as a CPA from the State of California. Mr. Ko’s accounting, auditing and other financial experience qualifies him to serve on the Board.

Although the regular three-year term of the Class III directors expired in 2023, they continue to serve since we did not hold an Annual Meeting of Stockholders in 2023.

Class I Directors (Term Expires 2024)

Jiyoung Hwang, age 47, has served as a member of our Board of Directors since April 2023 and served as CFO since August 28, 2023. Ms. Hwang is the Director of CBI USA and Executive Director of CBI Co. Ltd., the parent company of CBI USA. Ms. Hwang currently serves on the board of directors of Jokwang I.L.I Co., Ltd., a Korea-based manufacturing company, since November 2019, HuM&C Co., Ltd., a Korea-based manufacturing and distribution company, since April 2021 and CBI USA, Inc., a subsidiary of Korea-based automotive engine and mission parts manufacturer CBI Co. Ltd., that focuses on investment in dynamic businesses initially in the life science sector, since June 2021, and has served on the board of directors of Kineta, Inc., a clinical-stage

biotechnology company, from June 2022 to November 2022. Previously, Ms. Hwang held the role of Managing Director in Venture Capital Investment at Intervest Co., Ltd., a venture capital firm, from March 2016 until February 2017 and Neoplux Co., Ltd., a venture capital company, from September 2011 until April 2016. Ms. Hwang holds a Bachelor of Science degree in Life Science from Pohang University of Science and Technology and a Master's degree in Environmental Management from Seoul National University.has served as an independent consultant since 2017. As a consultant she has worked on investments in Viral Gene, Liminatus Pharma, Epivara and Hyperfine. She also serves as a member of the evaluation committee at MSIT, KHIDI, KIPA, and KIPO of the Republic of Korea since 2013. Prior to 2017 she was the Managing Director of Intervest Co., Ltd a venture capital fund. Prior to 2017, she also served as a Managing Director at Neoplux Co., Ltd, a Fund Manager at National Agricultural Cooperative Federation, a Manager at NEXUS Investment Co, Ltd., a Manager at Pulmuone Holdings Co., Ltd and Venture Capitalist & Analyst at Hyundai Venture Investment Corp. Ms. Hwang holds a Life Science degree from Pohang University of Science of Technology and a graduate degree in Environmental Management from Graduate School of Environmental Studies, Seoul National University. She also serves as a member of the evaluation committee at MSIT, KHIDI, KIPA, and KIPO of the Republic of Korea since 2013. Prior to 2017 she was the Managing Director of Intervest Co., Ltd a venture capital fund. Prior to 2017, she also served as a Managing Director at Neoplux Co., Ltd, a Fund Manager at National Agricultural Cooperative Federation, a Manager at NEXUS Investment Co, Ltd., a Manager at Pulmuone Holdings Co., Ltd and Venture Capitalist & Analyst at Hyundai Venture Investment Corp. Ms. Hwang holds a Life Science degree from Pohang University of Science of Technology and a graduate degree in Environmental Management from Graduate School of Environmental Studies, Seoul National University.

Dongho Lee, age 62, has served as a member of our Board of Directors since August 2023. Since 2021, Mr. Lee has served as the President & CEO of Lumios Co. Ltd., a South Korean company that specializes in investment and provides real estate related consulting services to local development projects. He is currently an independent Director and member of the Audit Committee of Quantapia Inc., a renewable energy company listed in South Korea. Mr. Lee began his professional career in finance as a FINRA-licensed financial advisor in asset management in New York from 1989 and in Korea from 1995. Since 2000, Mr. Lee has served in various corporate executive and management positions, from CEO and CFO to advisor to the board of directors, at various companies in both Korea and the United States. From 2007 to 2011, he was the CSO & SVP of Finance at Englewood Lab Inc., a cosmetics R&D and manufacturing company in Englewood, NJ. From 2012 to 2018, he was the COO of Tchopstix, Inc., a restaurant group in Indianapolis, IN. Mr. Lee graduated from Korea University with a Bachelor's degree in Business Administration with emphasis in Finance.

Class II Directors (Term Expires 2025)

Minhee Eom, age 57, has served as a member of our Board of Directors since September 2023. Ms. Eom, Ph.D., has been an associate professor of writing and language skills at University of Texas Rio Grande Valley since 2015 and prior to that at University of Texas-Pan American from 2006 to 2015. She has also been serving as the Vice President of The Texas Coastal Band of the Korea Scientists and Engineers Association since 2017. Prior to academia, Ms. Eom was a senior management consultant at Maekyung International Business Incubator from 2000 to 2001 and a manager at Applied Material Korea, the Korean subsidiary of a global semiconductor manufacturer Applied Materials, from 1994 to 1997. Ms. Eom has an MBA in Information Systems Management from George Washington University and a Ph.D. in Teaching and Learning (foreign language and ESL education). Ms. Eom's prior consulting experience and education qualify here to serve on the Board.

Hojoon Lee, age 51, has served as a member of our Board of Directors since August 2023. Mr. Lee has been serving in various leadership positions in the Growth & Value Group, a Korean group of investment funds, heading its private equity, venture capital and asset management arms since 2011, specializing in fundraising and investment through real estate securitization and structured financing primarily targeting listed small-cap companies in Korea and overseas. Since 2020, he has also been serving on the board and management of several Growth & Value fund portfolio companies, including CBI, DGP and KOASIS. Prior to that, he was the vice president and partner of New Buds Inc., where he supervised investor sourcing, investment advisory, corporate consulting, company analysis and trading from 2009 to 2011. Throughout his 23-year career, he has spanned various roles in consulting, marketing and distribution, commodities trading, M&A and restructuring, fundraising and investor relations. Mr. Lee has a bachelor's degree in electrical engineering from Hongik University. Mr. Lee's investment experience, as well as affiliate in CBI and DGP, qualify him to serve on the Board.

Executive Officers

The following sets forth information about our executive officers as of May 27, 2024.

Name	Position	Age
Paul Kang	Chief Executive Officer	62
Jiyoung Hwang	Chief Financial Officer	47

Paul Kang. Biographical information for Mr. Kang is presented above under the caption "Directors."

Jiyoung Hwang. Biographical information for Ms. Hwang is presented above under the caption "Directors."

Delinquent Section 16(a) Reports

Section 16(a) of the Exchange Act requires the Company's directors and executive officers, and persons who own more than ten percent of a registered class of the Company's equity securities, to file with the SEC initial reports of ownership and reports of changes in ownership of common stock and other equity securities of the Company. Officers, directors, and greater than ten percent stockholders are required by SEC regulations to furnish the Company with copies of all Section 16(a) forms they file.

To the Company's knowledge, based solely on a review of the copies of such reports furnished to us and written representations that no other reports were required, (i) during the fiscal year ended December 31, 2023, all Section 16(a) filing requirements applicable to our officers, directors, and greater than ten percent beneficial owners were complied with, except that: a late report on Form 4 was filed by CBI USA on March 9, 2023 reporting a transaction dated February 22, 2023; a late report on Form 3 was filed on May 15, 2023 relating to an initial statement of beneficial ownership of securities by former officer Jung Sang Kim who was appointed April 26, 2023; a late report on Form 4 was filed by officer Joshua Miller on May 25, 2023 reporting a transaction dated May 16, 2023; and a late report on Form 4 was filed by officer Joshua Miller on December 1, 2023 reporting a transaction dated November 16, 2023

Code of Business Conduct and Ethics

We have adopted a Code of Business Conduct and Ethics that applies to all of our employees, officers and directors, including those officers responsible for financial reporting. The Code of Business Conduct and Ethics is available on our website at www.exicuretx.com. If we make any substantive amendments to the Code of Business Conduct and Ethics or grants any waiver from a provision of the Code to any executive officer or director, we will promptly disclose the nature of the amendment or waiver on our website.

Audit Committee Matters

Our Audit Committee is currently comprised of Minhee Eom, Raymond Ko, and Dongho Lee. Mr. Ko serves as the chairperson of the Audit Committee. Our Board of Directors has determined that all members are "independent" for Audit Committee purposes as that term is defined in the applicable rules of the SEC and Nasdaq rules.

Our Board has determined that Mr. Ko qualifies as an "audit committee financial expert," as defined under the applicable rules of the SEC.

Item 11. Executive Compensation.

Compensation Overview

This section provides a discussion of the total compensation awarded to, earned by, or paid to, during the years ended December 31, 2023 and 2022: (1) the individuals who served as our principal executive officer during the fiscal year ended December 31, 2023, (2) our next two most highly compensated executive officers serving as of December 31, 2023 who earned more than $100,000 during the fiscal year ended December 31, 2023 (of which we

had none), and (3) any individual who would otherwise be included in (2) above but for the fact that such individual was not serving as an executive officer of ours as of December 31, 2023. We refer to these individuals in this prospectus as our named executive officers. Our named executive officers for 2023 who appear in the Summary Compensation Table are:

- Paul Kang, our Chief Executive Officer;
- Matthias Schroff, our former Chief Executive Officer;
- Jung Sang (Michael) Kim, our former Chief Executive Officer;
- Elias Papadimas, our former Chief Financial Officer;
- Sarah Longoria, our former Chief Human Resource and Compliance Officer;

Summary Compensation Table

The following table provides a summary of compensation paid or accrued for the years ended December 31, 2023 and 2022 to our named executive officers, amounts in dollars:

Name and principal position	Year	Salary ($)	Bonus ($)	Stock awards ($)[1]	Option awards ($)[2]	All other compensation ($)[3]	Total ($)
Paul Kang [4] *Chief Executive Officer*	2023	50,000	—	—	—	—	50,000
Jung Sang (Michael) Kim [5] *Former Chief Executive Officer*	2023	90,625	—	—	—	313	90,938
Matthias G. Schroff, Ph.D. [6] *Former Chief Executive Officer*	2023	183,333	603,825[7]	—	—	10,313	797,471
	2022	538,163	122,197[8]	267,323	277,785	12,250	1,217,718
Elias D. Papadimas [9] *Former Chief Financial Officer*	2023	135,000	370,000[10]	—	—	11,250	516,250
	2022	400,625	140,000[11]	48,759	67,125	10,250	666,759
Sarah Longoria [12] *Chief Human Resources and Compliance Officer*	2023	125,000	370,000[13]	—	—	11,250	506,250
	2022	300,000	99,750[14]	20,786	26,125	—	446,661

(1) The amounts reported in this column reflect the aggregate grant date fair value for performance stock units granted during such fiscal year.

(2) The amounts reported in this column reflect the grant date fair value of the option awards granted to the named executive officers during the years presented and do not reflect the actual amounts earned. Such grant date fair values do not take into account any estimated forfeitures related to service-based vesting conditions. These values have been determined in accordance with FASB ASC Topic 718. See Note 10 to our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2022 as filed with the SEC on March 27, 2023 for a discussion of the relevant assumptions used in calculating these amounts. The amounts in this column for 2022 for Dr. Schroff, Mr. Papadimas, and Ms. Longoria also include the incremental fair value of outstanding awards as a result of the repricing of stock options effective April 1, 2022.

(3) Except as set forth below in footnotes 10 and 15 with respect to 2023 amounts, and footnote 14 with respect to 2022 amounts, the amounts reported in this column represent a match of contributions to our 401(k) savings plan.

(4) Effective August 21, 2023, Mr. Kang was appointed as Chief Executive Officer, succeeding Mr. Kim.

(5) Effective April 27, 2023, Mr. Kim was appointed as Chief Executive Officer and Chief Financial Officer, succeeding Mr. Schroff and Mr Papadimas, respectively. He resigned from those positions as of August 18, 2023.

(6) Effective February 4, 2022, Dr. Schroff was appointed as Chief Executive Officer, succeeding Mr. Bock. He separated from the Company effective April 26, 2023. Dr. Schroff served as our Chief Operating Officer in 2021 until December 10, 2021, and as our Chief Scientific Officer from December 10, 2021 through February 4, 2022.

(7) Represents separation amount paid to Dr. Schroff as the result of his departure on April 26, 2023.

(8) Represents retention award amounts earned and paid to Dr. Schroff in 2022.

(9) Mr. Papadimas was appointed as our Chief Financial Officer in January 2022. He separated from the Company effective April 26, 2023

(10) Represents separation amount paid to Mr. Papadimas as the result of his departure on April 26, 2023.

(11) The amount reported represents (i) a retention award in the amount of $120,000 earned in 2022 and (ii) a bonus in the amount of $20,000 earned in 2022, each paid to Mr. Papadimas in 2022.

(12) Ms. Longoria was appointed as our Chief Human Resources and Compliance Officer in December 2021 and separated from the Company effective May 26, 2023.

(13) Represents separation amount paid to Ms. Longoria as the result of her departure on May 26, 2023.

(14) Represents retention award amounts earned and paid to Ms. Longoria in 2022.

Employment Agreements

We had employment agreements with each of our named executive officers who were still serving in their positions at the end of 2023. These employment agreements are described below. Refer to the footnotes to the Summary Compensation Table above with respect to named executive officers who were no longer serving at the end of 2023.

Paul Kang. We and Mr. Kang entered into a Employment Agreement dated August 28, 2023. Under the terms of this Employment Agreement, Mr. Kang's annual base salary was $150,000.

Outstanding Equity Awards at Fiscal Year-End

Mr. Kang does not have any outstanding equity awards, and none of our named executive officers who were not serving with the Company at the end of fiscal 2023 still had any outstanding equity awards.

Defined Contribution Plan

We sponsor a defined contribution plan intended to qualify under Section 401 of the Internal Revenue Code (the "Code") as a 401(k) plan. Employees who are at least 21 years of age are generally eligible to participate and may enter the plan on the first day of any month following the employment start date. Participants may make pre-tax contributions or Roth 401(k) contributions up to the maximum limit established by the Code. Our 401(k) plan also has a "catch-up contribution" feature for employees aged 50 or older (including those who qualify as "highly compensated" employees) who can defer amounts over the statutory limit that applies to all other employees below age 50. Participant contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participant's directions. Participants are immediately and fully vested in their contributions. We provide matching contributions under the plan of up to 100% of the first 50% of the participant's elective contributions.

Director Compensation

Under our director compensation policy, as amended, each of our directors is eligible to receive cash compensation for service on our Board of Directors and committees of our Board of Directors.

2023 Director Compensation

Cash Compensation

Following the closing of the Private Placement in February 2023, each director is entitled to an annual retainer of $20,000. None of our current directors have received any equity grants, and none of our prior directors received equity grants in 2023.

Director Compensation Table

The following table presents information regarding the compensation earned for service by our directors during the year ended December 31, 2023, amounts in dollars.

Name	Fees Earned or Paid In Cash ($)	Option Awards [13] ($)	Total ($)
Paul Kang [1]	16,944	—	16,944
Jiyoung Hwang [2]	16,973	—	16,973
Hyuk Joon (Raymond) Ko [3]	7,215	—	7,215
Dongho Lee [4]	7,215	—	7,215
Hojoon Lee [5]	7,215	—	7,215
Minhee Eom [6]	5,000	—	5,000
Seung Soo Shin [7]	1,778	—	1,778
Hyukku Lee [8]	—	—	—
Changil Ahn [9]	6,944	—	6,944
Cheolho Jo [10]	6,778	—	6,778
Jeffrey L. Cleland, Ph.D. [11]	8,200	—	8,200
Elizabeth Garofalo, M.D. [12]	13,826	—	13,826

(1) Mr. Kang was appointed to the Board of Directors effective February 24, 2023.
(2) Ms. Hwang was appointed to the Board of Directors effective February 24, 2023.
(3) Mr. Ko was appointed to the Board of Directors effective August 21, 2023.
(4) Mr. D. Lee was appointed to the Board of Directors effective August 21, 2023.
(5) Mr. Hojoon Lee was appointed to the Board of Directors effective August 21, 2023.
(6) Ms. Eom was appointed to the Board of Directors effective September 26, 2023.
(7) Mr. Shin was appointed to the Board of Directors effective February 27, 2023, and resigned from the Board of Directors effective April 26, 2023.
(8) Mr. Hyukku Lee was appointed to the Board of Directors effective February 24, 2023, and resigned from the Board of Directors effective May 3, 2023.
(9) Mr. Ahn was appointed to the Board of Directors effective February 24, 2023, and resigned from the Board of Directors effective August 18, 2023.
(10) Mr. Jo was appointed to the Board of Directors effective February 24, 2023, and resigned from the Board of Directors effective August 1, 2023.
(11) Dr. Cleland resigned from the Board of Directors effective February 10, 2023.
(12) Dr. Garofalo resigned from the Board of Directors effective February 24, 2023.
(13) During 2023, no options were issued to any directors. During 2022, Dr. Cleland and Dr. Garofalo each had outstanding options to purchase the of shares, however, those were forfeited upon their resignation.

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

Equity Compensation Plan Information

The following table provides information about the securities authorized for issuance under our equity compensation plans as of December 31, 2023, which as of that date consisted of our 2017 Equity Incentive Plan and 2017 Employee Stock Purchase Plan.

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by stockholders	15,158	$ 4.28	506,607 [1] [2]
Equity compensation plans not approved by stockholders	-	-	-
Total	15,158	$ 4.28	506,607

(1) Represents 454,636 and 51,971 shares of common stock available for issuance under the 2017 Equity Incentive Plan and 2017 Employee Stock Purchase Plan, respectively, as of December 31, 2023.

(2) The number of shares of common stock reserved for issuance under the 2017 Equity Incentive Plan automatically increases on January 1 of each year, beginning on January 1, 2020, by the lesser of (i) 153,333 shares, (ii) 5% of the total number of shares of our capital stock outstanding on December 31 of the preceding calendar year, or (iii) a lesser number of shares determined by the Compensation Committee. Effective January 1, 2024, pursuant to the terms of the 2017 Equity Incentive Plan, the number of awards that are reserved and may be awarded under the 2017 Equity Incentive Plan was automatically increased by 153,333 awards. The number of shares of common stock reserved for issuance under the 2017 Employee Stock Purchase Plan automatically increases on January 1 of each year, beginning on January 1, 2018, by the lesser of (i) 10,000 shares of common stock, (ii) 0.3% of the total number of shares of our capital stock outstanding on December 31 of the preceding calendar year, or (iii) such lesser number of shares determined by our Board. Effective January 1, 2023, pursuant to the terms of the 2017 Employee Stock Purchase Plan, the number of shares that are reserved and may be issued under the 2017 Employee Stock Purchase Plan was automatically increased by 10,000 shares.

Security Ownership of Certain Beneficial Owners and Management

The following table sets forth certain information regarding the ownership of our common stock as of May 24, 2024 by: (i) each of our directors; (ii) each of our named executive officers named in the 2023 Summary Compensation Table above; (iii) all of our current executive officers and directors as a group; and (iv) all those known by us to be beneficial owners of more than five percent of our common stock.

Beneficial ownership is determined in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities, or have the right to acquire such powers within 60 days. Common stock subject to options that are currently exercisable or exercisable within 60 days of May 31, 2024 are deemed to be outstanding and beneficially owned by the person holding the options. These shares, however, are not deemed outstanding for the purposes of computing the percentage ownership of any other person. Except as otherwise indicated, all persons listed below have sole voting and investment power with respect to the shares beneficially owned by them. Percentage ownership calculations are based on 8,651,148 shares outstanding as of May 31, 2024, adjusted as required by rules promulgated by the SEC.

This table is based upon information supplied by our officers, directors and principal stockholders and Schedules 13D and 13G filed with the SEC. Except as otherwise noted below, the address for each executive officer and director listed in the table is c/o Exicure, Inc., 2430 N. Halsted Street, Chicago, Illinois 60614.

Beneficial Owner Greater than 5% Stockholders	Beneficial Ownership Number of Shares Beneficially Owned (#)	Percentage of Common Stock Beneficially Owned (%)
DGP Co., Ltd. (1)	3,060,000	35.4 %
CBI USA, Inc. (1)	818,299	9.5 %
Directors and Named Executive Officers		
Paul Kang	—	*
Jiyoung Hwang (2)	—	*
Hyuk Joon (Raymond) Ko	—	*
Dongho Lee	—	*
Hojoon Lee (2)	—	*
Minhee Eom	—	*
All directors and executive officers as a group (6 persons) (2)	—	*

* Indicates beneficial ownership of less than one percent of the outstanding shares of common stock.

(1) Based on most recent Schedule 13D amendment filed March 4, 2024. The address of CBI USA is c/o Baker & Hostetler LLP, One North Wacker Drive, Suite 4500, Chicago, IL 60606-2841. The address of DGP is 23, Geurintekeu-ro, Yeonggwang-eup, Yeonggwang-gun, Jeollanam-do, Republic of Korea (57024).

(2) As a result of Mr. Hojoon Lee's role as director and/or executive of CBI USA, DGP and the parent company of CBI USA, he may be deemed to beneficially own the shares of common stock held by CBI USA and DGP. In addition, Ms. Hwang, as a director of CBI USA and an executive of the parent company of CBI USA, may be deemed to beneficially own the shares of common stock held by CBI USA. Each of Mr. Lee and Ms. Hwang disclaim beneficial ownership of these shares.

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

Certain Relationships and Related Party Transactions

Policies and Procedures for Related Party Transactions

Our Board of Directors adopted a written related person transaction policy to set forth the policies and procedures for the review and approval or ratification of related person transactions. This policy covers, with certain exceptions set forth in Item 404 of Regulation S-K promulgated under the Exchange Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we were or are to be a participant, where the amount involved exceeds or will exceed the lesser of $120,000 or 1% of the average of our total assets as of the end of the last two completed fiscal years and a related person had, has or will have a direct or indirect material interest, including purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related person. As provided by our Audit Committee charter, our Audit Committee is responsible for reviewing and approving in advance the related party transactions covered by our related transaction policies and procedures.

A related party transaction reviewed under the policy will be considered approved or ratified if it is authorized by the Audit Committee of our Board of Directors or the chairperson of the Audit Committee in accordance with the standards set forth in the policy after full disclosure of the related party's interests in the transaction. As appropriate for the circumstances, the Audit Committee or the chairperson of the Audit Committee, as applicable, shall review and consider:

- the related party's interest in the transaction;

- the approximate dollar value of the amount involved in the related party transaction;
- the approximate dollar value of the amount of the related party's interest in the transaction without regard to the amount of any profit or loss;
- whether the transaction was undertaken in our ordinary course of business;
- whether the transaction with the related party is proposed to be, or was, entered into on terms no less favorable to us than terms that could have been reached with an unrelated third party;
- required public disclosure, if any; and
- any other information regarding the related party transaction in the context of the proposed transaction that would be material to investors in light of the circumstances of the particular transaction.

Related Party Transactions

The following is a description of related party transactions we have entered into since January 1, 2022 with our directors, executive officers and holders of more than 5% of our outstanding voting securities and their affiliates, whom we refer to as our related persons, in which the amount involved exceeds the lesser of $120,000 or 1% of the average of our total assets as of the end of the last two completed fiscal years, other than the compensation arrangements we describe in the sections titled "Director Compensation" and "Executive Compensation" in this Proxy Statement.

CBI USA Private Placement

On September 26, 2022, the Company entered into the Securities Purchase Agreement with CBI USA, pursuant to which the Company agreed to issue and sell to CBI USA in a private placement an aggregate of 3,400,000 shares of the Company's common stock at a purchase price of $1.60 per share (the "Private Placement"). CBI USA was already a holder of more than 5% of our outstanding voting securities at the time we entered into the Securities Purchase Agreement as a result of a previous private placement completed in May 2022. The Private Placement closed on February 24, 2023. Since the registration statement was not filed within 90 days following the Closing Date of the Registration Rights Agreement, the Company paid $27 to CBI USA and accrued $191 to DGP pursuant to the liquidated damages provision in this agreement.

Paul Kang Consulting Fees

The Company engaged entities controlled by Mr. Kang to provide business development consulting services in 2023 and 2022. The Company paid the entities controlled by Mr. Kang $218 and $248 for the years ended December 31, 2023 and 2022, respectively, for such services to date. Mr. Kang was not yet serving as a director at the time he was engaged to provide these services.

DGP Promissory Note

On June 3, 2024, the Company executed another promissory note ("DGP Note") and subsequently received a loan in the amount of $700 from DGP. All principal and accrued interest will be due and payable on the earlier of (i) ten months from the date of this DGP Note or (ii) upon an event of default, at that time, such amounts declared by the investor will become due and payable by Company. Interest will accrue on this DGP Note at 6.0% and is payable at maturity.

Independence of the Board of Directors and Controlled Company Exemption

The following current directors were determined to be independent under the applicable Nasdaq standards: Hyuk Joon (Raymond) Ko , Dongho Lee and Minhee Eom. The following former directors who served during 2023 were also determined to be independent under such standards: Changil Ahn, Jeffrey L. Cleland, Ph.D., Elizabeth Garofalo, M.D., Cheolho Jo, and Hyukku Lee.

Following the closing of the private placement to CBI USA in February 2023, we became a "controlled company" under Nasdaq rules. As a result, we were exempt from the requirements that a majority of our Board of Directors be independent and that we have an independent compensation committee and an independent nominating committee or function. Following the consummation of private placement, our Board of Directors dissolved the Compensation Committee and Nominating and Corporate Governance Committee. In August 2023, CBI USA and its affiliate, DGP Co., Ltd., filed a Schedule 13D/A reporting that they no longer owned 50% of outstanding shares as a result of dilutive issuances, and thus we were no longer a "controlled company" under Nasdaq rules. Thereafter, we reinstated our Compensation Committee and Nominating and Corporate Governance Committee and appointed our three independent directors to those committees in compliance with Nasdaq rules with respect to those committees. We are still relying on the phase-in provisions of the Nasdaq rules with respect to the requirement that a majority of our Board of Directors be independent. We must comply with that requirement within 12 months of losing "controlled company" status.

Item 14. Principal Accounting Fees and Services.

Independent Registered Public Accounting Firm Fees and Services

The following table sets forth the aggregate fees billed to us for the year ended December 31, 2023 by Marcum LLP, Chicago, Illinois (PCAOB ID: 688) and year ended December 31, 2022 by KPMG LLP, Chicago, IL (PCAOB ID: 185), our independent registered public accounting firm for such years.

	Year Ended December 31,	
	2023	2022
Audit Fees[1]	$ 432,846	$ 440,000
Audit-Related Fees[2]	—	21,000
Total Fees	$ 432,846	$ 461,000

(1) Audit fees for the fiscal years ended December 31, 2023 and 2022 consist of fees for professional services rendered in connection with the audit of our annual financial statements and review of our quarterly financial statements.

(2) Audit-related fees for the fiscal years ended December 31, 2023 and 2022 consist principally of fees for professional services rendered that are reasonably related to the performance of the audit or review of our financial statements and fees related to assistance with registration statements filed with the SEC.

All fees described above were pre-approved by the Audit Committee of the Board of Directors.

Pre-Approval Policies and Procedures

The Audit Committee has adopted policies and procedures for the pre-approval of audit and non-audit services provided by our independent registered public accounting firm. The policy generally requires pre-approval for specified services in the defined categories of audit services, audit-related services and tax services up to specified amounts. Pre-approval may also be given as part of the Audit Committee's approval of the scope of the engagement of the independent registered public accounting firm or on an individual explicit case-by-case basis before the independent registered public accounting firm is engaged to provide each service. The pre-approval of services may be delegated to one or more of the Audit Committee's members, but the decision must be reported to the full Audit Committee at its next scheduled meeting.

The Audit Committee will review both audit and non-audit services performed by the independent registered public accounting firm and the fees charged for such services on at least an annual basis. Among other things, the Audit Committee will review non-audit services proposed to be provided by the independent registered public accounting firm and pre-approve such services only if they are compatible with maintaining the independent registered public accounting firm's status as an independent registered public accounting firm. All services provided by Marcum LLP in 2023 and KPMG LLP in 2022 were pre-approved by our Audit Committee after review of each of the services proposed for approval.

PART IV

Item 15. Exhibit and Financial Statement Schedules.

(a) The following documents are filed as part of this report:

1. Financial Statements

See Index to Financial Statements on page 37 of this Annual Report on Form 10-K.

2. Financial Statement Schedules

All financial statement schedules are omitted because they are not applicable or the required information is included in the financial statements or notes thereto.

3. Exhibits

Exhibit Number	Exhibit Description	Filed with this Report	Incorporated by Reference herein from Form or Schedule	Filing Date	SEC File/Reg. Number
3.1	Amended and Restated Certificate of Incorporation, as filed with the Secretary of State of the State of Delaware on November 15, 2017.		10-K (Exhibit 3.3)	3/11/2021	001-39011
3.2	Certificate of Amendment to Amended and Restated Certificate of Incorporation of Exicure, Inc., effective June 29, 2022.		8-K (Exhibit 3.1)	6/29/2022	001-39011
3.3	Amended and Restated Bylaws, as currently in effect.		8-K (Exhibit 3.4)	10/2/2017	000-55764
4.1	Description of Securities		10-K (Exhibit 4.4)	3/10/2020	001-39011
10.1+	2015 Equity Incentive Plan and forms of awards thereunder, assumed in the Merger.		8-K (Exhibit 10.1)	10/2/2017	000-55764
10.2+	2017 Equity Incentive Plan and forms of award agreements thereunder.		8-K (Exhibit 10.2)	10/2/2017	000-55764
10.3+	2017 Employee Stock Purchase Plan.		8-K (Exhibit 10.3)	10/2/2017	000-55764
10.4+	Form of Indemnification Agreement by and between the Company and each of its directors and executive officers.		8-K (Exhibit 10.4)	10/2/2017	000-55764
10.5+	Second Amended and Restated Employment Agreement, by and between Exicure, Inc. and Matthias Schroff, Ph.D.		8-K (Exhibit 10.2)	2/4/2022	001-39011
10.6+	First Amendment to the Second Amended and Restated Employment Agreement, by and between Exicure, Inc. and Matthias Schroff, dated September 23, 2022.		8-K (Exhibit 10.3)	9/27/2022	001-39011
10.7+	Amended and Restated Employment Agreement dated as of June 1, 2021 by and between Elias D. Papadimas and Exicure, Inc.		10-Q (Exhibit 10.3)	8/12/2021	001-39011
10.8+	First Amendment to Amended and Restated Employment Agreement by and between Exicure, Inc. and Elias D. Papadimas, dated January 17, 2022		8-K (Exhibit 10.2)	1/18/2022	001-39011
10.9+	Second Amendment to the Amended and Restated Employment Agreement, by and between Exicure, Inc. and Elias Papadimas, dated September 23, 2022.		8-K (Exhibit 10.4)	9/27/2022	001-39011
10.10+	Retention Agreement by and between Exicure, Inc. and Elias D. Papadimas		10-K (Exhibit 10.20)	3/25/2022	001-39011
10.11+	Employment Agreement by and between Exicure, Inc. and Sarah Longoria, dated March 5, 2021		10-K (Exhibit 10.14)	3/25/2022	001-39011
10.12+	First Amendment to Employment Agreement by and between Exicure, Inc. and Sarah Longoria, dated December 10, 2021		10-K (Exhibit 10.15)	3/25/2022	001-39011

10.13+	Second Amendment to Employment Agreement by and between Exicure, Inc. and Sarah Longoria, dated September 23, 2022		10-K (Exhibit 10.16)	3/25/2022	001-39011
10.14	Lease Agreement dated as of February 28, 2020 by and between 2430 N. Halsted, LLC and Exicure, Inc.		10-Q (Exhibit 10.1)	5/14/2020	001-39011
10.15	Form of Securities Purchase Agreement, dated May 9, 2022, by and among Exicure, Inc. and the purchaser parties thereto.		8-K (Exhibit 10.1)	5/13/2022	001-39011
10.16	Registration Rights Agreement, dated May 9, 2022, by and among Exicure, Inc. and the purchasers party thereto.		8-K (Exhibit 10.2)	5/13/2022	001-39011
10.17	Securities Purchase Agreement, dated September 26, 2022, by and between Exicure, Inc. and CBI USA.		8-K (Exhibit 10.1)	9/27/2022	001-39011
10.18	Registration Rights Agreement, dated September 26, 2022, by and between Exicure, Inc. and CBI USA.		8-K (Exhibit 10.2)	9/27/2022	001-39011
10.19+	Separation and Release Agreement, dated April 26, 2023, among Exicure, Inc. and Matthias Schroff.		8-K (Exhibit 10.2)	5/2/2023	001-39011
10.20+	Separation and Release Agreement, dated April 26, 2023, among Exicure, Inc. and Elias Papadimas.		8-K (Exhibit 10.3)	5/2/2023	001-39011
10.21	Convertible Bond Subscription Agreement, dated May 3, 2023, among Cyworld Z Co., Ltd. and Exicure, Inc.		8-K (Exhibit 10.1)	5/9/2023	001-39011
10.22	Convertible Bond Subscription Agreement, dated May 16, 2023, among Cyworld Z Co., Ltd. and Exicure, Inc.		8-K (Exhibit 10.1)	5/18/2023	001-39011
10.23+	Separation and Release Agreement, dated May 27, 2023, among Exicure, Inc. and Sarah Longoria.		8-K (Exhibit 10.1)	6/1/2023	001-39011
10.24+	Amended and Restated Employment Agreement, dated May 24, 2023, among Exicure, Inc. and Joshua Miller.		8-K (Exhibit 10.2)	6/1/2023	001-39011
10.25+	Retention Agreement, dated May 24, 2023, among Exicure, Inc. and Joshua Miller.		8-K (Exhibit 10.3)	6/1/2023	001-39011
10.26+	First Amendment to the Separation and Release Agreement of Matthias Schroff, dated June 12, 2023, among Exicure, Inc. and Matthias Schroff.		8-K (Exhibit 10.9)	6/14/2023	001-39011
10.27+	Employment Agreement, dated Aug. 28, 2023, among Exicure, Inc. and Paul Kang		8-K (Exhibit 10.1)	8/23/2023	001-39011
10.28+	Employment Agreement, dated Aug. 28, 2023, among Exicure, Inc. and Jiyoung Hwang		8-K (Exhibit 10.2)	8/23/2023	001-39011
21.1	Subsidiaries of Exicure, Inc.		10-K (Exhibit 21.1)	3/25/2022	001-39011
23.1	Consent of Marcum LLP, independent registered public accounting firm.	X			
23.2	Consent of KPMG LLP, independent registered public accounting firm.	X			
24.1	Power of Attorney (included on the signature page hereto).	X			
31.1	Certification of Principal Executive Officer Pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, As Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	X			
31.2	Certification of Principal Financial Officer Pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, As Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	X			
32.1**	Certifications of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	X			
97	Compensation Recoupment Policy	X			
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document	X			
101.SCH	Inline XBRL Taxonomy Extension Schema Document	X			

101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document	X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document	X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document	X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document	X
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)	X

+ Indicates a management contract or compensatory plan.

* Indicates that portions of this exhibit have been omitted pursuant to Item 601(b)(10)(iv) of Regulation S-K.

** This certification is not deemed filed with the SEC and is not to be incorporated by reference into any filing of Exicure, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of such Form 10-K), irrespective of any general incorporation language contained in such filing.

Item 16. Form 10-K Summary.

None.

SIGNATURES

Pursuant to the requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Chicago, State of Illinois, on June 6, 2024.

EXICURE, INC.

By: /s/ Paul Kang
Paul Kang
Chief Executive Officer

By: /s/ Jiyoung Hwang
Jiyoung Hwang
Chief Financial Officer

By: /s/ Joshua Miller
Joshua Miller
Chief Accounting Officer

POWER OF ATTORNEY

We, the undersigned directors and officers of Exicure, Inc., hereby severally constitute and appoint Paul Kang and Jiyoung Hwang, and each of them singly, our true and lawful attorneys-in-fact, with full power to them, and to each of them singly, to sign for us and in our names in the capacities indicated below, any and all amendments to this Annual Report on Form 10-K and to file or cause to be filed the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as each of them might or could do in person, and hereby ratifying and confirming all that said attorneys-in-fact, and each of them, or their substitute or substitutes, shall do or cause to be done by virtue of this Power of Attorney. This Power of Attorney does not revoke any power of attorney previously granted by the undersigned, or any of them.

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

SIGNATURE	TITLE	DATE
/s/ Paul Kang Paul Kang	President, Chief Executive Officer, and Director (*Principal Executive Officer)*	June 6, 2024
/s/ Jiyoung Hwang Jiyoung Hwang	Chief Financial Officer, and Director (*Principal Financial Officer)*	June 6, 2024
/s/ Joshua Miller Joshua Miller	Chief Accounting Officer (*Principal Accounting Officer)*	June 6, 2024
/s/ Raymond Ko Raymond Ko	Director	June 6, 2024
/s/ Minhee Eom Minhee Eom	Director	June 6, 2024
/s/ Dongho Lee Dongho Lee	Director	June 6, 2024
/s/ Hojoon Lee Hojoon Lee	Director	June 6, 2024

Exhibit 23.1

Independent Registered Public Accounting Firm's Consent

We consent to the incorporation by reference in the Registration Statements of Exicure, Inc. on Forms S-8 (Nos. 333-222999, 333-237043, 333-254189, and 333-263876) and Forms S-3 (Nos. 333-221791, 333-227475, and 333-266093) of our report dated June 6, 2024, which includes an explanatory paragraph as to the Company's ability to continue as a going concern, with respect to our audit of the consolidated financial statements of Exicure, Inc. as of December 31, 2023 and for the year ended December 31, 2023, which report is included in this Annual Report on Form 10-K of Exicure, Inc. for the year ended December 31, 2023.

/s/ Marcum LLP

Marcum LLP
New York, NY
June 6, 2024

Exhibit 23.2

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the registration statements (Nos. 333-237043, 333-222999, 333-254189, and 333-263876) on Form S-8 and (Nos. 333-227475, 333-221791, and 333-266093) on Form S-3 of our report dated March 27, 2023, with respect to the consolidated financial statements of Exicure, Inc.

/s/ KPMG LLP

Chicago, Illinois
June 6, 2024

Exhibit 31.1

CERTIFICATIONS

I, Paul Kang, certify that:

1. I have reviewed this Annual Report on Form 10-K of Exicure, 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(s) 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 control over financial reporting, or caused such internal control 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(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: June 6, 2024

/s/ Paul Kang

Paul Kang
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATIONS

I, Jiyoung Hwang, certify that:

1. I have reviewed this Annual Report on Form 10-K of Exicure, 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(s) 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 control over financial reporting, or caused such internal control 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(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: June 6, 2024

/s/ Jiyoung Hwang

Jiyoung Hwang
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

SECTION 1350 CERTIFICATIONS*

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. § 1350), Paul Kang, Chief Executive Officer of Exicure, Inc. (the “Company”), and Jiyoung Hwang, Chief Financial Officer of the Company, each hereby certifies that, to the best of his or her knowledge:

1. The Company’s Annual Report on Form 10-K for the year ended December 31, 2023, to which this Certification is attached as Exhibit 32.1 (the “Periodic Report”), fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

2. The information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: June 6, 2024

IN WITNESS WHEREOF, the undersigned have set their hands hereto as of the 6th day of June, 2024.

/s/ Paul Kang	/s/ Jiyoung Hwang
Paul Kang	Jiyoung Hwang
Chief Executive Officer	Chief Financial Officer
(Principal Executive Officer)	*(Principal Financial Officer)*

* This certification accompanies the Annual Report on Form 10-K, to which it relates is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Exicure, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Annual Report on Form 10-K), irrespective of any general incorporation language contained in such filing.

Exhibit 97

Exicure, Inc.
(A Delaware Corporation)

Action By Unanimous Written Consent In Lieu Of Meeting Of
Board Of Directors

December 1, 2023

Pursuant to Section 141(f) of the General Corporation Law of the State of Delaware (the “***DGCL***”) and the Amended and Restated Bylaws (the “***Bylaws***”) of Exicure, Inc., a Delaware corporation (the “***Company”***), the undersigned, being all of the members of the Board of Directors of the Company (the “***Board***”), hereby waive all notice of the time, place and purpose of a meeting and consent to approve and adopt the following recitals and resolutions:

WHEREAS, Listing Rule 5608 of the Nasdaq Stock Market requires that the Company adopt a compensation recovery policy no later than December 1, 2023; and

WHEREAS, the Board has reviewed the Compensation Recoupment Policy in form attached hereto as Exhibit A (the “***Policy***”) and desires to adopt such policy.

NOW, THEREFORE, the Policy is hereby approved and adopted.

[signature page follows]

This Action by Unanimous Written Consent of the Board of Directors may be signed in counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument and shall be filed with the minutes of the proceedings of the Board of Directors of the Company.

/s/ Paul Kang
Paul Kang

/s/ Jiyoung Hwang
Jiyoung Hwang

/s/ Minhee Eom
Minhee Eom

/s/ Hyuk Joon (Raymond) Ko
Hyuk Joon (Raymond) Ko

/s/ Dongho Lee
Dongho Lee

/s/ Hojoon Lee
Hojoon Lee

EXHIBIT A

Compensation Recoupment Policy
(Required by NASDAQ Listing Rule 5608)

Compensation Recovery

Subject to the limited exceptions set forth herein, with respect to the compensation of executive officers and former executive officers subject to this policy as described under "Applicability" below, Exicure, Inc. (the "**Company**") will recover reasonably promptly the amount of erroneously awarded incentive-based compensation in the event that the Company is required to prepare an accounting restatement due to the material noncompliance of the Company with any financial reporting requirement under the securities laws, including any required accounting restatement to correct an error in previously issued financial statements that is material to the previously issued financial statements, or that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period.

For purposes of this policy, "**incentive-based compensation**" is any compensation that is granted, earned, or vested based wholly or in part upon the attainment of a financial reporting measure. A "**financial reporting measure**" is a measure that is determined and presented in accordance with the accounting principles used in preparing the Company's financial statements, and any measures that are derived wholly or in part from such measures. Stock price and total shareholder return are also financial reporting measures. A financial reporting measure need not be presented within the financial statements or included in a filing with the Securities and Exchange Commission.

Applicability

This policy applies to incentive-based compensation received (as defined below) by a person: (i) after beginning service as an executive officer; (ii) who served as an executive officer at any time during the performance period for that incentive-based compensation; (iii) while the Company's common shares remain listed on NASDAQ (or another national securities exchange or a national securities association); and (iv) during the three completed fiscal years immediately preceding the date that the Company is required to prepare an accounting restatement as described under "Compensation Recovery" above (plus any transition period to the extent required by NASDAQ rules in the event of a change in fiscal year).

For purposes of clause (iv) above, the date the Company is required to prepare such an accounting restatement is the earlier of: (1) the date the board of directors, a committee of the board of directors, or the officer or officers of the Company authorized to take such action if board action is not required, concludes, or reasonably should have concluded, that the Company is required to prepare such an accounting restatement; and (2) the date a court, regulator, or other legally authorized body directs the Company to prepare such an accounting restatement.

For purposes of this policy, "**executive officer**" means the Company's president, principal financial officer, principal accounting officer (or if there is no such accounting officer, the controller), any vice-president in charge of a principal business unit, division, or function (such as sales, administration, or finance), any other officer who performs a policy-making function, or any other person who performs similar policy-making functions for the Company. Executive officers of the Company's subsidiaries are deemed executive officers of the Company if they perform such policy making functions for the Company. Policy-making function is not intended to include policy-making functions that are not significant. Identification of an executive officer for purposes of this section would include at a minimum executive officers identified pursuant to Item 401(b) of Regulation S-K.

For purposes of this policy, incentive-based compensation is deemed "**received**" in the fiscal period during which the financial reporting measure specified in the incentive-based compensation award is attained, even if the payment or grant of the incentive-based compensation occurs after the end of that period.

This policy only applies to incentive-based compensation received (as defined above) on or after October 2, 2023.

Determination of Amount Subject to Recovery

The amount of incentive-based compensation subject to recovery under this policy ("**erroneously awarded compensation**") is the amount of incentive-based compensation received that exceeds the amount of incentive-based compensation that otherwise would have been received had it been determined based on the restated amounts, and must be computed without regard to any taxes paid.

For incentive-based compensation based on stock price or total shareholder return, where the amount of erroneously awarded compensation is not subject to mathematical recalculation directly from the information in an accounting restatement: (i) the amount must be based on a reasonable estimate of the effect of the accounting restatement on the stock price or total shareholder return upon which the incentive-based compensation was received; and (ii) the Company must maintain documentation of the determination of that reasonable estimate and provide such documentation to NASDAQ as provided by the rules thereof.

Limited Exceptions

The Company must recover erroneously awarded compensation in compliance with this policy except to the extent that one of the exceptions described in this section is applicable, and the Company's compensation committee, or in the absence of such a committee or in the event it is not comprised solely of independent directors, a majority of the independent directors serving on the board, has made a determination that recovery would be impracticable.

The exceptions referred to in the previous paragraph are as follows:

Direct Third-Party Expense Exceeds Recoverable Amount. The direct expense paid to a third party to assist in enforcing this policy would exceed the amount to be recovered. Before concluding that it would be impracticable to recover any amount of erroneously awarded compensation based on expense of enforcement, the Company must make a reasonable attempt to recover such erroneously awarded compensation, document such reasonable attempt(s) to recover, and provide that documentation to NASDAQ as provided by the rules thereof.

Tax-Qualified Retirement Plans. Recovery would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the Company, to fail to meet the requirements of 26 U.S.C. 401(a)(13) or 26 U.S.C. 411(a) and regulations thereunder.

No Indemnification or Insurance

The Company will not indemnify or insure any executive officer or former executive officer against the loss of erroneously awarded compensation

Disclosure

The Company will comply with all disclosure requirements with respect to this policy in accordance with the requirements of the applicable securities laws and NASDAQ rules.

No Duplication of Recovery

To the extent that any compensation recoverable under this policy is also recoverable other than pursuant to this policy, including pursuant applicable law such as Section 304 of the Sarbanes-Oxley Act or pursuant to any other policy or agreement of the Company, then this policy will be administered in order to avoid duplicative recovery to the extent permitted by applicable law and NASDAQ rules. If any amounts that would also be recoverable hereunder have already been reimbursed by a person to the Company pursuant to applicable law or another policy or agreement, such amounts may be credited against amounts recoverable from such person hereunder.

Administration

This policy will be administered by the Company's compensation committee, or in the absence of such a committee or in the event it is not comprised solely of independent directors, a majority of the independent directors serving on the board (the "**Administrator**").

This policy is intended to comply with NASDAQ Listing Rule 5608 and the applicable provisions Rule 10D-1 under the Securities Exchange Act of 1934, and shall be administered and interpreted in a manner consistent with such rules and the applicable guidance of NASDAQ and the Securities and Exchange Commission with respect thereto.

Subject to the foregoing, the Administrator is authorized to interpret this policy and to make all determinations necessary, appropriate or advisable for the administration of this policy. Any interpretations or determinations made by the Administrator shall be final and binding on the Company and all affected individuals