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

FORM 10-K

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2023

or

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission File No. 001-33407

PERSPECTIVE THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware	41-1458152
(State of incorporation)	(I.R.S. Employer Identification No.)
2401 Elliott Avenue, Suite 320 Seattle , Washington	98121
(Address of principal executive offices)	(Zip code)

Registrant's telephone number, including area code: (206) 676-0900

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

Title of each class	Trading Symbol(s)	Name of exchange on which registered
Common Stock, $0.001 par value	CATX	NYSE American

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 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 ☐

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

Large accelerated filer ☐	Accelerated filer ☐
Non-accelerated filer ☒	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 Act): Yes ☐ No ☒

As of June 30, 2023, the last business day of the registrant’s most recently completed second fiscal quarter, the approximate aggregate market value of voting and non-voting common equity held by non-affiliates of the registrant was $ 186,423,142 based on the closing price of the registrant’s common stock on June 30, 2023.

As of March 22, 2024, the number of shares outstanding of the registrant’s common stock, $0.001 par value per share, wa s 586,915,977 .

PERSPECTIVE THERAPEUTICS, INC.

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NOTE REGARDING COMPANY REFERENCES

Unless the context requires otherwise, references to “Perspective,” "the Company,” “our company,” “we,” “us” and “our” refer to Perspective Therapeutics, Inc., and, as the context requires, its subsidiaries. References to “Viewpoint” refer to Viewpoint Molecular Targeting, Inc., a wholly owned subsidiary, and references to “Isoray” refer to Isoray Medical, Inc., a wholly owned subsidiary.

CAUTION REGARDING FORWARD-LOOKING INFORMATION

In addition to historical information, this Form 10-K contains certain “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995 ("PSLRA"). This statement is included for the express purpose of availing Perspective Therapeutics, Inc., of the protections of the safe harbor provisions of the PSLRA.

All statements contained in this Form 10-K, other than statements of historical facts, regarding our future financial condition, results of operations, business strategy and plans and objectives of management for future operations, industry trends and other future events are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “believe,” “expect,” “anticipate,” “intend,” “estimate,” “forecast,” “project,” “may,” “could,” “might,” “plan,” “project,” “should,” “will,” “would” or the negative of these terms and other similar expressions, although not all forward-looking statements contain these identifying terms. Forward-looking statements in this Form 10-K include, among other things:

- the timing, progress and results of our preclinical studies and clinical trials of our current and future program candidates, including statements regarding the timing of our planned regulatory communications, submissions and approvals, initiation and completion of studies or trials and related preparatory work and the period during which the results of the trials will become available, and our research and development programs;
- our ability to obtain and maintain regulatory approvals for our future program candidates;
- our manufacturing capabilities and strategy, including the scalability and commercial viability of our manufacturing methods and processes;
- our ability to identify patients with the diseases treated by our program candidates and to enroll these patients in our clinical trials;
- our expectations regarding the potential functionality, capabilities and benefits of our program candidates, if approved for commercial use;
- the potential size of the commercial market for our program candidates;
- our expectations regarding the scope of any approved indication for any program candidate;
- our ability to successfully commercialize our program candidates;
- our ability to leverage technology to identify and develop future program candidates;
- our estimates of our expenses, ongoing losses, future revenue, capital requirements and our need for or ability to obtain additional funding before we can expect to generate any revenue from product sales;
- our belief regarding the sufficiency of our cash resources to fund our operating expenses and capital expenditure requirements into 2026;
- our competitive position and expectations regarding developments and projections relating to our competitors or our industry; and
- expectations, beliefs, intentions and strategies regarding the future.

These statements are based on certain assumptions and analyses made by us in light of our experience and our assessment of historical trends, current conditions and expected future developments as well as other factors we believe are appropriate under the circumstances. However, whether actual results will conform to the expectations and predictions of management is subject to a number of risks and uncertainties as updated in this Form 10-K in Item 1A under the heading “Risk Factors” beginning on page 34 below that may cause actual results to differ materially.

Consequently, all of the forward-looking statements made in this Form 10-K are qualified by these cautionary statements and there can be no assurance that the actual results anticipated by management will be realized or, even if substantially realized, that they will have the expected consequences to or effects on our business operations. Readers are cautioned not to place undue reliance on such forward-looking statements as they speak only of the Company’s views as of the date the statement was made (or any earlier date indicated in such statement). While we may update certain forward-looking statements from time to time, we undertake no obligation to do so, whether as a result of new information, future events or otherwise, except as required by applicable law.

Summary of Risk Factors

Investing in our common stock involves significant risks. Some of the principal risks related to our business include the following. These risks are discussed more fully under "*Item 1A - Risk Factors*" of this Annual Report.

Risks Related to Our Business, Financial Results and Need for Additional Capital

- We are a clinical-stage biopharmaceutical company and have a limited operating history upon which to base an investment decision .
- We will require substantial additional capital to fund our operations. Additional funds may be dilutive to shareholders or impose operational restrictions. Further, if additional capital is not available, we may need to delay, limit or eliminate our research, development and commercialization programs and modify our business strategy.
- We have incurred losses in nearly every year since our inception, and we anticipate that we will not achieve profits for the foreseeable future. To date, we have had no product revenues other than from our brachytherapy business, which is expected to be divested in the first half of 2024.

Risks Related to Our Business and Industry

- Coverage and adequate reimbursement may not be available for our products, if commercialized, which could make it difficult for us to sell our products profitably.
- Our program candidates are in early stages of development and must go through clinical trials, which are very expensive, time consuming and difficult to design and implement. The outcomes of clinical trials are uncertain, and delays in the completion of or the termination of any clinical trial of our program candidates could harm our business, financial condition and prospects.
- We obtain our supply of Thorium-228 from a single supplier.
- If we encounter difficulties enrolling patients in our clinical trials, our clinical development activities could be delayed or otherwise adversely affected.
- Because the results of preclinical studies and early clinical trials are not necessarily predictive of future results, any program candidate we advance into clinical trials may not have favorable results in later clinical trials, if any, or receive regulatory approval.
- Delays in the commencement or completion of our clinical trials could result in increased costs and delay our ability to pursue regulatory approval and commercialization of our program candidates.
- We may be required to suspend, repeat or terminate our clinical trials if they are not conducted in accordance with regulatory requirements, the results are negative or inconclusive, or the trials are not well designed.
- The approval processes of regulatory authorities are lengthy, time consuming, expensive and inherently unpredictable; if we experience unanticipated delays or are unable to obtain approval for our program candidates from applicable regulatory authorities, we will not be able to market and sell those program candidates in those countries or regions and our business will be substantially harmed.
- We intend to rely on third-party collaborators to market and sell our programs, and those third-party collaborators may not have the resources to pursue approvals, which in turn could severely limit our potential markets and ability to generate revenue.
- Our program candidates may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval, limit the commercial profile of the approved labeling, or result in significant negative consequences following marketing approval, if any.
- If we are unable to execute our sales and marketing strategy for our programs and are unable to gain market acceptance, we may be unable to generate sufficient revenue to sustain our business.
- Because we license some of our program candidates from third parties, any dispute with our licensors or non-performance by us or by our licensors may adversely affect our ability to develop and commercialize the applicable program candidates.
- We may form or seek strategic alliances or enter into additional licensing arrangements in the future, and we may not realize the benefits of such alliances or licensing arrangements.
- We may rely partially on third parties to manufacture our clinical pharmaceutical supplies and could continue to rely on third parties to produce commercial supplies of any approved program candidate, and our dependence on third party suppliers could adversely impact our business.
- We rely on third parties to conduct our clinical trials and if these third parties do not meet their deadlines or otherwise conduct the trials as required, our clinical development programs could be delayed or unsuccessful, and we may not be able to obtain regulatory approval for or commercialize our program candidates when expected or at all.
- We may seek orphan drug designation, rare pediatric disease designation or other United States Food and Drug Administration ("FDA") designations but may not receive such designation. Even if the FDA grants the designation, we may not receive orphan drug exclusivity or a priority review voucher, if the program candidate does not meet the FDA requirements at the time of approval or licensure.
- We have received Fast Track designation for VMT-α-NET, but such designation may not actually lead to a faster development or regulatory review or approval process. Additionally, the FDA may rescind the designation if it determines the program candidate no longer meets the qualifying criteria for Fast Track.
- We will face intense competition and may not be able to compete successfully.
- Our success will depend upon intellectual property, proprietary technologies and regulatory market exclusivity periods, and we may be unable to protect our intellectual property.
- We intend to rely on market exclusivity periods that may not be or remain available to us.
- We must deploy our sales and marketing capabilities to market, distribute and sell our programs if any of our program candidates are approved, and may not be effective in doing so.
- If any program candidate that we successfully develop does not achieve broad market acceptance among physicians, patients, healthcare payors and the medical community, the revenues that it generates from their sales will be limited.
- Due to the significant resources required for the development of our drug candidates, we must prioritize development of certain drug candidates and/or certain disease indications and may expend our limited resources on candidates or indications that do not yield a successful program and fail to capitalize on drug candidates or indications that may be more profitable or for which there is a greater likelihood of success.
- If we fail to attract and retain key management and clinical development personnel, we may be unable to successfully develop or commercialize our program candidates.
- Our ability to compete may decline if we do not adequately protect our proprietary rights.

Risks Related to Our Discontinued Brachytherapy Industry and Operations

- Continuing regulatory liability may exist from our discontinued operations.
- We are subject to the risk that certain third parties may mishandle our product.

Legal and Regulatory Risks Related to the Our Operations

- Significant disruptions of information technology systems or breaches of data security could materially adversely affect our business, results of operations and financial condition.
- Our employees and independent contractors, including principal investigators, consultants, commercial collaborators, service providers and other vendors may engage in misconduct or other improper activities, including noncompliance with regulatory pricing standards and requirements, which could have an adverse effect on our results of operations.
- If we fail to comply with applicable healthcare regulations, we could face substantial penalties and our business, operations and financial condition could be adversely affected.
- We are subject to U.S. and foreign anti-corruption and anti-money laundering laws with respect to our operations, and noncompliance with such laws can subject us to criminal and/or civil liability and harm our business.
- Healthcare reform measures could hinder our programs' commercial success.
- If, once we offer commercialized drug products, we participate in the Medicaid Drug Rebate Program and other governmental pricing programs, failure to comply with obligations under these programs could result in additional price concession requirements, penalties, sanctions and fines, which could have a material adverse effect on our business, operations and financial condition.
- Pending and future patent litigation could be costly and disruptive and may have an adverse effect on our financial condition and results of operations.
- The value of our granted patents, and our patents pending, is uncertain.
- Failure to comply with government regulations could harm our business.
- Our business exposes us to product liability claims.
- Our business involves environmental risks.

Risks Related to Ownership of Shares of Common Stock and Public Company Status

- Our reporting obligations as a public company are costly.
- Our common stock price is likely to be volatile and may be adversely affected by the future issuance and sale of shares of our stock or other equity interests.
- We do not expect to pay any dividends for the foreseeable future.

PART I

ITEM 1 – BUSINESS

Change in Fiscal Year

As previously reported, on February 6, 2023, we changed our fiscal year end from June 30 to December 31, effective December 31, 2022. This Annual Report on Form 10-K ("Annual Report" or "Form 10-K") is for the 12-month period from January 1, 2023 through December 31, 2023.

Overview

Perspective is developing the next generation of precision-targeted alpha therapies (“TAT”) for oncology that have the potential to treat a large population of cancer patients across multiple tumor types, including those with metastatic disease. By leveraging its proprietary TAT platform, Perspective aims to develop alpha-emitting radiopharmaceuticals that can be attached to targeting peptides to deliver the radioactive payload directly to difficult-to-treat tumors. The foundation of Perspective’s TAT platform is its Pb-specific chelator ("PSC") and peptide linker technology, which is designed to enable Perspective to connect Perspective’s alpha-emitting isotope of choice, Lead-212 (“^{212}Pb” or “Pb-212”), to a desired targeting peptide to deliver radiation directly to cancer cells. Unlike commercially available chelators and linkers, Perspective’s proprietary PSC and peptide linker have shown in preclinical studies the differentiated ability to promote enhanced clearance of the non-tumor localized ^{212}Pb payload without sacrificing the uptake of the alpha particle into the tumor. Rapid clearance of the alpha-emitting isotope from normal tissues is important to enhance tolerability and widen the therapeutic window of Perspective’s program candidates. Perspective is also developing complementary diagnostics that utilize the same targeting peptide and imaging isotopes such as Lead-203 (“^{203}Pb” or “Pb-203”), Gallium-68 (“ ^{68}Ga” or “Ga-68”), or Copper-64 (“ ^{64}Cu” or “Cu-64”) to provide the opportunity to understand which patients may respond to its targeted therapy.

Perspective’s platform generates TATs that are comprised of three components: (i) a targeting peptide that is designed to selectively target ligands that are unique to, or preferentially expressed on, cancer cells throughout the body; (ii) the alpha-emitting medical isotope ^{212}Pb designed to kill cancer cells; and (iii) Perspective’s proprietary linker that attaches the targeting molecule to the radioactive payload.

Perspective utilized its TAT platform to discover, design and develop its initial programs, VMT-α-NET and VMT01, which are currently in ongoing Phase 1 clinical trials, and Perspective plans to continue to leverage its platform to assess the potential of, and develop, multiple additional pipeline programs. Using our proprietary platform technology, VMT-α-NET and VMT01 are engineered to target cancer-specific receptors on tumor cells. [^{212}Pb]VMT-α-NET is a TAT in development for patients with unresectable or metastatic somatostatin receptor type 2 ("SSTR2")-expressing tumors who have not previously received peptide-targeted radiopharmaceutical therapy, such as Lutathera, a beta-emitting therapy marketed by Novartis. [^{212}Pb]VMT01 is a TAT in development for second-line or later treatment of patients with progressive melanocortin 1 receptor ("MC1R")-positive metastatic melanoma.

Our Strategy

Perspective’s goal is to advance innovative precision medicines for the treatment of cancer by developing and commercializing its TATs. The key elements of its strategy are to:

Advance its initial drug candidate, VMT-α-NET, through clinical development for the treatment of neuroendocrine tumors expressing SSTR2. [^{203}Pb]VMT-α-NET is in an ongoing diagnostic Phase 1 clinical trial in patients with SSTR2-positive neuroendocrine tumors ("NETs"). Perspective has received FDA's permission to enter into an open label Phase 1 therapeutic trial to assess [^{212}Pb]VMT-α-NET safety, tolerability and pharmacokinetics as well as to identify the maximum tolerated dose and the recommended Phase 2 dose in patients with SSTR2-positive NETs who have not received prior radiotherapy. Secondary endpoints assess efficacy using imaging criteria, best and overall response, progression-free survival and overall survival. This trial includes patients with NETs of gastrointestinal, pancreatic and lung origin, as well as pheochromocytoma and paraganglioma. Perspective has received a Fast Track designation from the FDA under this investigational new drug ("IND") application. Perspective intends to leverage this accelerated approval pathway to design and seek approval for an adaptive registrational trial as data becomes available in the dose escalation study. This strategy, which is commonly employed for drugs showing effectiveness in life-threatening oncological disease states, has the opportunity to provide a path to a new drug application and commercial approval in one more NET cancer subtypes without first executing a traditional Phase 3, double-blind, randomized and placebo-controlled clinical trial. As information on the tolerability and radiation exposure to normal tissues is defined in its Phase 1/2a study, Perspective intends to seek approval for expanding its indication to patients who have received prior radiotherapy and are experiencing recurrence.

Advance its second drug candidate, [$^{203/212}$Pb]VMT01, through clinical development for the treatment of melanoma tumors expressing MC1R. [^{203}Pb]VMT01 and [^{68}Ga]VMT02 imaging tracers are in an ongoing diagnostic Phase 1 clinical trial in patients with stage IV metastatic melanoma. Perspective has received an IND "safe to proceed" letter from the FDA to evaluate the therapeutic [^{212}Pb]VMT01 in patients with advanced and progressive melanoma. Perspective has begun enrollment and has completed the first cohort in October 2023. The second cohort is currently enrolling. The opening study under this IND is a Phase 1/2a trial utilizing a modified 3+3 dose-ranging design to evaluate approximately 30 subjects with previously treated inoperable stage III and stage IV melanoma. The primary endpoints of this study are safety and tolerability, determination of a recommended dose for subsequent study and tumor targeting as determined by imaging. Secondary endpoints assess efficacy using imaging criteria, best and overall response, progression-free survival and overall survival. Perspective may design and seek approval for an adaptive registrational trial in refractory or uveal melanoma as data becomes available in the dose escalation study. However, [^{212}Pb]VMT01 has shown strong synergy with immune-oncology drugs including PD-1 and CTLA-4 inhibitors in preclinical studies. Perspective intends to present this information to the FDA in a Fast Track Application for use of [^{212}Pb]VMT01 in combination with one or more immune oncology drugs as first-line therapy of inoperable stage III or stage IV melanoma, thus creating opportunity for parallel paths to approval.

Continue to leverage its TAT platform to expand its pipeline of program candidates . Perspective’s technology allows it to create novel TATs by combining ^{212}Pb encased within its Pb-specific chelator ("PSC") with a wide variety of targeting peptides and other delivery vehicles. Targeting molecules can come from discontinued programs, novel molecules currently in development, approved molecules or other proprietary targeting agents. As such, Perspective is continuously evaluating opportunities to acquire or in-license additional new targeting molecules such as those recently licensed from the Mayo Foundation for Medical Education and Research ("Mayo Clinic") and Stony Brook University that Perspective believes can be utilized with its platform to create a potent alpha therapeutic agent. Perspective is leveraging its platform to progress its existing program candidates into clinical development for additional indications including breast and pancreatic cancers, as well as the development of new program candidates.

Expand the potential of its program candidates in additional indications and as combination therapies in current and additiona indications. SSTR2, the molecular target of [^{212}Pb]VMT-α-NET, is overexpressed in a number of cancers that are not classified as NETs, including meningioma and neuroblastoma. Both of these cancers can be difficult to treat when advanced and inoperable, but this is especially true for advanced neuroblastoma, a rare and orphan pediatric disease that is one of the most morbid of pediatric cancers. Perspective intends to prioritize seeking regulatory approval to test [^{212}Pb]VMT-α-NET in advanced pediatric neuroblastoma as soon as adult experience in NETs provides a basis for determining safety and tolerability. Perspective will leverage the unique capability of [^{203}Pb]VMT-α-NET quantitative imaging to arrive at individualized [^{212}Pb]VMT-α-NET starting doses for the children by calculating the expected radiation delivery to the tumors and normal tissues before treatment begins.

In preclinical studies, Perspective also observed a synergistic effect on anti-tumor activity when its TATs are used in combination with approved checkpoint inhibitors. Perspective believes that the synergies it has observed could expand the addressable patient populations for [^{212}Pb]VMT01 and allow for potentia use in earlier lines of treatment, if approved, after completing the initial evaluation of [^{212}Pb]VMT01 in a relapsed or refractory patient population. Perspective is currently evaluating [^{212}Pb]VMT01 in preclinical studies in combination with approved checkpoint inhibitors and deoxyribonucleic acid ("DNA") damage response inhibitors, such as poly-ADP ribose polymerase inhibitors. Perspective may also explore other combination therapies that it believes may improve response rates in immune oncology-responsive tumors as compared to monotherapies of approved oncology therapeutics across Perspective's developmen pipeline.

Utilize a precision medicine approach by leveraging its imaging diagnostics. In order to enrich the patient population for its trials, Perspective created an imaging analogue of each of its program candidates by replacing ^{212}Pb with the radioactive imaging isotope ^{203}Pb while retaining the same targeting peptide. This allows Perspective to assess the uptake of the imaging isotope into the targeted tumor and radiation doses to key organs. Using this data Perspective is able to enroll only those patients who meet predefined tumor uptake and dosimetry standards and are, therefore, more likely to respond to treatment. Perspective believes this strategy will allow it to enrich the patient population of its clinical trials and enable the use of a precision medicine approach for the treatment of multiple tumor types.

Continue to strengthen and scale its internal manufacturing capabilities. Perspective believes the quality, reliability and scalability of the manufacturing process for its program candidates will be a core competitive advantage and better enable its long-term success. Perspective has developed its proprietary VMT-α-GEN isotope delivery system (generator) to deliver its therapeutic isotope ^{212}Pb for supply to patients. Perspective has a license to possess radioactive materials and distribute our radiopharmaceuticals from the Iowa Department of Health and Human Services, Radioactive Materials Program at ou Coralville, IA site. In January 2021, we entered into a 10-year feedstock contract with the National Isotope Development Center of the Department of Energy's ("DoE") Isotope Program. Perspective has scaled manufacturing of the supply of VMT-α-GEN systems for research purposes and is developing its supply capabilities in an effort to support the clinical development of its drug candidates. Perspective believes that by controlling its own therapeutic isotope supply Perspective can solve the many supply chain risks that have slowed alpha-particle therapy clinical adoption to date. In March 2024, Perspective acquired the assets and associated lease of Lantheus Holdings, Inc.'s ("Lantheus") radiopharmaceutical manufacturing facility in Somerset, NJ. This site has three production suites that Perspective intends to utilize to supply drug product for the northeastern half of the United States. Perspective plans to continue to invest resources to further develop its internal manufacturing process and capabilities in addition to collaborating with contract drug manufacturers.

Background of Radiation-Based Therapies and Radiopharmaceuticals

External beam radiation, or ExB, is one of the most widely used treatments for cancer, with approximately 50% of all cancer patients receiving radiation therapy during the course of treatment. To deliver ExB, a radiation therapy device is used to aim a beam of ionizing radiation into the tumor to kill cancer cells. Based on advances in radiation technology, ExB is highly effective in killing cancer cells and this treatment modality contributes towards approximately 40% of curative treatment for cancer. However, despite the successes of ExB treatment, only a limited number of sites in the body can be irradiated at any time by this treatment due to the off-target effects of radiation that can damage normal tissues. In addition, not all types of cancers can be treated with ExB, as certain organs or tumor types may be difficult to access with radiation beams. As a result, ExB use has generally been restricted to treating localized tumors and is not typically used as a monotherapy to treat patients who have metastatic disease.

Radiopharmaceuticals have been developed to precisely apply the tumor-killing power of radiation to a wider array of cancers, including for patients who have metastatic disease. Radiopharmaceuticals are drugs that contain medical isotopes, which are unstable elements that emit radiation and can be used to diagnose and treat cancers. To create radiopharmaceuticals, radiation-emitting medical isotopes are typically attached to targeting molecules and administered via intravenous injection. Once administered, the radiopharmaceuticals selectively target tumor antigens that are unique to, or preferentially expressed on, cancer cells throughout the body. Currently available targeted radiopharmaceuticals have demonstrated the ability to simultaneously bind to and kill multiple tumors. By precisely delivering alpha radiation directly to cancer cells, Perspective believes the power of radiotherapy can be realized while reducing the off-target effects.

Targeted radiopharmaceuticals are drugs that contain a radionuclide payload and a targeting moiety, which are unstable elements that emit radiation and can be used to diagnose and treat cancers. To create targeted radiopharmaceuticals, radiation-emitting medical isotopes are typically attached to targeting molecules, which are then administered via intravenous injection. Once administered, the radiopharmaceuticals selectively target tumor receptors that are unique to, or preferentially expressed on, cancer cells throughout the body. There are two main classes of therapeutic radiopharmaceuticals, which differ based on the types of particles that are emitted - beta-emitting isotopes and alpha-emitting isotopes. Beta-emitting isotopes kill cancer cells primarily by creating free radicals that damage cellular machinery and cause single-stranded DNA breaks, which can be repaired by the cell. In contrast, alpha particles cause greater physical damage to cancer cells than beta particles, including multiple double-stranded DNA breaks, which are highly lethal. Alpha particles are larger (over 7,000-fold greater atomic mass) and have higher energy transfer rates than beta particles. This higher energy transfer rate allows alpha particles to deposit a greater amount of tumor-killing energy over a short distance of one to five cells (<0.1 mm), compared to the relatively long distance of up to 200 cells (12 mm) for beta particles, allowing alpha particles to cause damage only to cancer cells in close proximity while reducing off-target radiation risk.

Targeted radiopharmaceuticals as a class have achieved clear clinical benefit over non-radioactive standard-of-care agents in the treatment of gastroenteropancreatic neuroendocrine tumors and castration-resistant metastatic prostate cancer and they possess characteristics that many believe may improve upon the profiles of current antibody-drug conjugates ("ADCs").

Perspective is leveraging its proprietary TAT platform to build on the successes of currently available radiation therapies and create the next generation of precision oncology alpha radiopharmaceuticals. Perspective's TATs are comprised of three components: (i) a targeting peptide, that is designed to selectively target receptors that are unique to, or preferentially expressed on, cancer cells throughout the body; (ii) the alpha-emitting medical isotope ^{212}Pb, designed to kill cancer cells, that is encased in its proprietary lead-specific chelator; and (iii) its proprietary linker that attaches the targeting molecule to the radioactive payload.

Perspective believes that its TAT platform and program candidates, if approved, could provide several potential advantages over currently available radiopharmaceuticals, including:

- enhanced tumor-killing power by using ^{212}Pb alpha-particle radiation in an outpatient setting;
- ability to use multiple targets and classes of targeting molecules;
- broad applicability across multiple tumor types, including neuroendocrine, metastatic melanomas and other cancers;
- increased tolerability and therapeutic window associated with its lead-based TATs;
- exploitation of multiple mechanisms of action, including direct DNA damage and an alpha particle-mediated enhanced anti-tumor immune response;
- an established manufacturing process and supply chain using its proprietary VMT-α-GEN isotope delivery system (colloquially called a "generator"); and
- ability to use its ^{203}Pb imaging diagnostics to enrich its targeted patient populations and determine treatment therapeutic suitability.

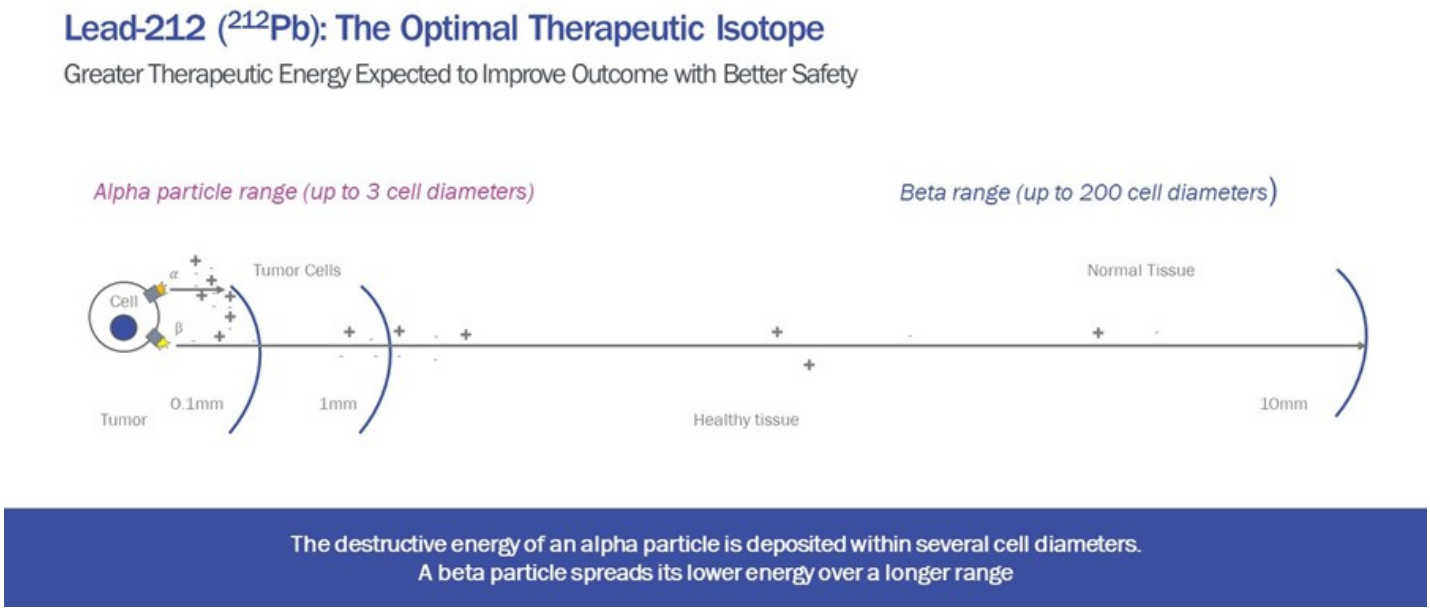
Perspective believes the multiple mechanisms of action of its TATs may give them the ability to treat hard-to-treat tumors and the potential to work synergistically with other approved oncology therapies. The primary mechanism of action of ^{212}Pb is direct cell damage through the induction of multiple double-stranded DNA breaks. A secondary mechanism, which would likely expand the effective direct cell kill range of the alpha particles, is referred to as the Bystander Effect. This effect has been shown to be as significant to the overall efficacy in killing cancer cells as the direct DNA breaks. The Bystander Effect has been shown to propagate alpha particle-induced cell death from irradiated dying cells to kill adjacent non-irradiated cells up to 1,000 µm away in a three-dimensional solid tumor model.

Alpha vs Beta Radiopharmaceuticals

There are two main classes of therapeutic radiopharmaceuticals, which differ based on the types of particles that are emitted - beta-emitting isotopes and alpha-emitting isotopes. Historically, due to the readily available supply of beta-emitting isotopes and the better understanding of their chemistry and biology, they were more widely used than alpha-emitting isotopes. As a result, first-generation-targeted therapeutic radiopharmaceuticals were based on beta-emitting isotopes, which kill cancer cells primarily by creating free radicals that damage cellular machinery and cause single-stranded DNA breaks, which can be repaired by the cell. As a result, certain cancers are refractory to beta particle-based radiopharmaceutical treatment. Products based on beta-emitting isotopes have been developed successfully, but as the development of radiopharmaceuticals continued to evolve, a deeper understanding of the potential of alpha-emitting isotopes for treating cancer has emerged.

Compared to beta particles, alpha particles cause greater physical damage to cancer cells, including multiple double-stranded DNA breaks, for which there is no viable resistance mechanism, unlike in the case of single-stranded DNA breaks. Rather, double-stranded DNA breaks are highly lethal, with even a single double-stranded break being sufficient to cause cancer cell death. Alpha particles are over 7,000 times more massive than beta particles with an approximately 4,000-fold higher energy transfer rate, providing alpha particles the advantage of depositing a high amount of tumor-killing energy over a short distance of one to two cells, compared to the relatively long distance of up to 12 mm for beta particles. The amount of energy produced by alpha particles is high enough such that only a small number of alpha particles are required to cause cell death. This feature, when combined with their short path length, enables alpha particles to cause damage only to cancer cells in close proximity, reducing the risk of off-target radiation and normal cell damage that can occur with beta particles. However, because of the short travel distance, alpha particles need to be delivered into or on the surface of tumor cells to achieve the desired therapeutic effect.

The graphic below is management's illustration of the comparison of the key differences between beta particles and alpha particles.



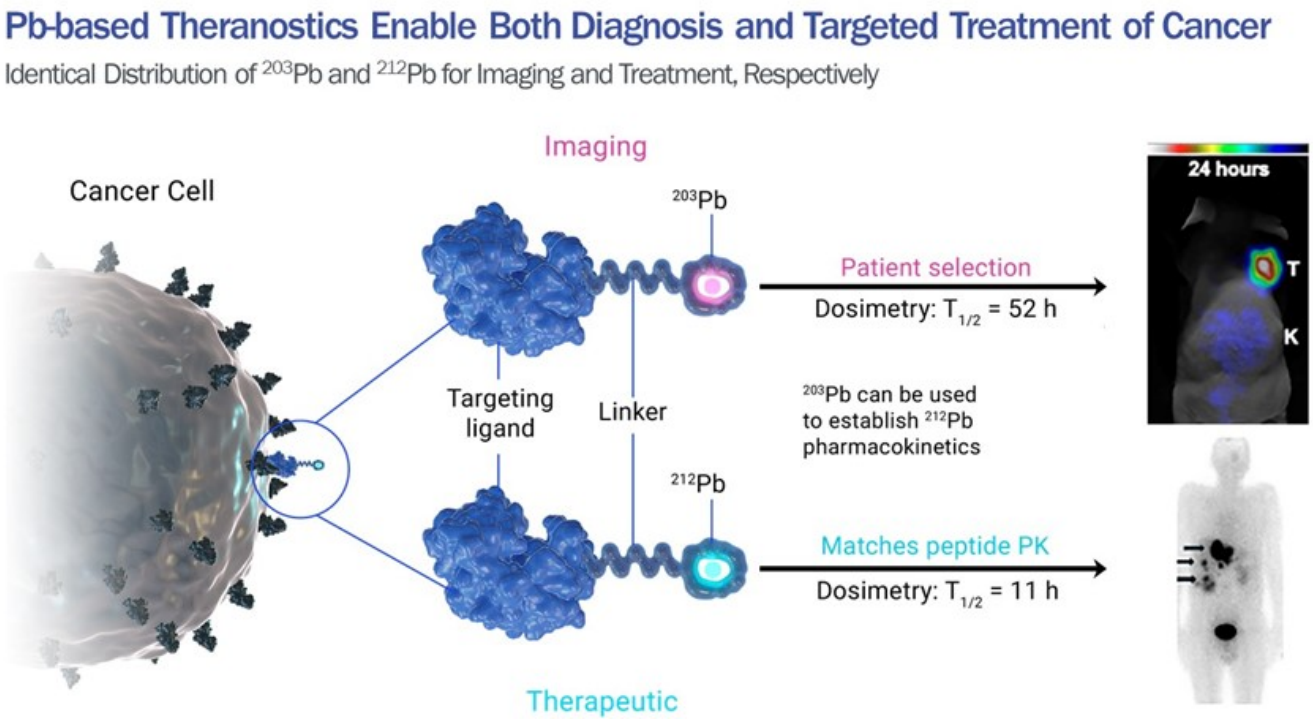
Commercially Available Radiopharmaceuticals

Two of the earliest antibody-targeted radiopharmaceuticals, Bexxar, marketed by GlaxoSmithKline, and Zevalin, marketed by Acrotech Biopharma, LLC, are beta-emitting therapies whose market acceptance was hampered by several issues, including handling and administration difficulties, supply chain challenges and reimbursement complications. Next-generation radiopharmaceuticals that have overcome the challenges faced by first-generation radiopharmaceuticals have since been developed and approved. One such approved, next-generation targeted radiopharmaceutical therapy is Lutathera, a beta-emitting therapy marketed by Novartis. Novartis reported that fiscal year 2023 sales revenue from Lutathera was $605 million, up 28% from fiscal year 2022, despite only being approved for a subset of neuroendocrine cancers that affect the pancreas or gastrointestinal tract, known as GEP-NETs. Recently, in March 2022, Pluvicto, a beta-emitting radioligand therapy marketed by Novartis, was approved to treat progressive, prostate-specific membrane antigen ("PSMA") positive metastatic castration-resistant prostate cancer. Pluvicto is being further developed by Novartis for other prostate cancer indications. Novartis reported that fiscal year 2023 sales revenue for Pluvicto were $980 million, up 262% from fiscal year 2022.

Over the past decade the global radiopharmaceutical market has been growing rapidly. Radiotherapeutics have been projected to grow at a compound annual growth rate ("CAGR") of 39.0% from 2022-2032, and radiodiagnostics have been projected to grow at CAGR of 7.2% from 2022-2032 (Source: 2023 MEDraysintell Nuclear Medicine Report).

Perspective's TAT Platform

Through the use of proprietary, specialized targeting peptides, Perspective is able to diagnose and then deliver a powerful alpha-particle radiotherapy directly to the tumor, while potentially limiting damage to healthy tissue. Utilizing a radioactive imaging agent that emits gamma rays, ^{203}Pb, connected to a specific targeting peptide, Perspective has the ability to diagnose the tumor. Following diagnosis, Perspective links its alpha-particle radioactive isotope, ^{212}Pb, to the same targeting peptide to treat and potentially kill the tumor. This two-step, personalized medicine approach, as depicted below, offers the ability to understand which patients may respond to its therapy and potentially improve efficacy while minimizing toxicity associated with many other types of cancer treatments.



Perspective's image-guided TAT leverages a specialized targeting peptide to deliver cancer-killing ^{212}Pb directly to the tumor. Targets are carefully selected to ensure they are overexpressed in cancer cells and minimally expressed on normal healthy cells. When the peptide is radiolabeled with ^{203}Pb, the patient can be imaged (i.e., single-photon emission computed tomography ("SPECT") and computed tomography ("CT")) to reveal cancer cells in the body. When the peptide is radiolabeled with ^{212}Pb, the target-peptide binding delivers powerful, yet locally deposited, cancer-killing alpha-particle radiation directly to cancer cells. This targeting mechanism allows for maximized therapeutic effects while minimizing off-target toxicities and may be used as a monotherapy or in combination with other precision treatments, such as targeted intracellular pathway inhibitors and immune checkpoint inhibitors.

Perspective's TAT platform is highlighted by research and insights into the underlying biology of alpha-emitting radiopharmaceuticals as well as its differentiated capabilities in target identification, candidate generation, manufacturing and supply chain, and the development of imaging diagnostics. Perspective's TAT platform was primarily developed over 15 years at the University of Iowa. Perspective believes that its TATs have the potential to be broadly applicable across multiple targets and tumor types and transform the treatment landscape of radiopharmaceuticals for the treatment of cancer.

Perspective's next-generation radiopharmaceutical technology has been recognized by many prestigious organizations and has received numerous awards and grants. Over the past 10 years, through December 2023, approximately $13 million has been awarded to Perspective and over $4 million to Co-Founder Michael Schultz's laboratory at the University of Iowa. Grant support has been for the Company's TAT development activities, including the advancement of preclinical diagnostic and therapeutic studies for both VMT-α-NET and VMT01, Phase 1 diagnostic clinical trials for both VMT-α-NET and VMT01, and its VMT-α-GEN in-house radioisotope production technologies. These grants have been received primarily from the National Institutes of Health ("NIH"), National Cancer Institute ("NCI") and state-funded programs.

^{212}Pb (Lead-212)

Although there are many alpha-emitting isotopes, Perspective believes that the ideal therapeutic isotope should emit alpha particles in rapid succession in order to maximize damage to cancer cells and increase efficacy. Alpha particles kill tumors through multiple mechanisms. The primary mechanism of action is direct cell damage through the induction of multiple double-stranded DNA breaks. As alpha particles traverse the nucleus of a cell, they create a linear track of direct chromosomal damage, leaving behind multiple clusters of double-stranded DNA breaks. These direct alpha particles can kill cells up to a distance of 100 µm, which is equal to a depth of a few cells. A secondary mechanism, which would expand effective direct cell kill range of the alpha particle, is referred to as the Bystander Effect. This effect has been shown to be as significant to the overall efficacy in killing cancer cells as the direct DNA breaks. The Bystander Effect has been shown to propagate alpha particle-induced cell death from irradiated dying cells to kill adjacent non-irradiated cells up to 1,000 µm away in a three-dimensional solid tumor model. A third mechanism by which alpha-particle therapy enhances the body's own anti-tumor immune response is less well understood but has been widely observed and reported. In Perspective's own preclinical studies, Perspective has observed a vaccine-like effect that prevented the regrowth of tumors upon re-challenge. This is an area of ongoing investigation by Perspective and the international scientific community. Our findings are reported by Perspective senior scientist Dr. Mengshi Li, et.al. in the peer-reviewed journal Cancers 2021, 13: 3676, 2021.

Perspective believes ^{212}Pb is an optimal therapeutic isotope as compared to currently commercially available radiopharmaceuticals as well as other alpha therapies in development. With a half-life of 10.6 hours, ^{212}Pb is ideally suited to deliver powerful alpha-particle therapy to cancerous tumors, while representing a lower risk for off-target unintended effects. The decay properties of the ^{212}Pb isotope and the rapid excretion of drug that has not bound to the tumor target provide the potential for treatment on an outpatient basis.

^{212}Pb is an alpha-emitting nuclide that acts as the therapeutic in Perspective's innovative theranostic approach. The higher linear-energy transfer of alpha particles, compared to beta particles, results in an increased incidence of double-stranded DNA breaks and improved localized cancer-cell damage. Perspective believes ^{212}Pb half-life of 10.6 hours provides many significant advantages over other radiotherapies, including faster clearance and the potential for reduced off-site toxicity. Its decay chain includes the short-lived isotopes bismuth-212, polonium-212 and thallium-208, which all emit either alpha or beta during decay over about another hour. The end of the decay chain is the stable element lead-208.

In order to maximize the potential clinical benefit of radiopharmaceuticals to patients and minimize potential toxicity issues, Perspective believes that TATs must selectively localize and remain within the tumor while the portions of the TAT that are not localized within the tumor are rapidly cleared from the body. Nearly 15 years of work by Perspective's co-founder, Dr. Michael Schultz, and colleagues at the University of Iowa and Perspective resulted in Perspective's proprietary TAT, PSC and peptide linker technology to enable the delivery of isotopes to tumor cells while simultaneously promoting enhanced clearance of the non-tumor localized isotopes.

Due to the short half-life of ^{212}Pb and the small size of the compounds, when Perspective's TATs are not bound to targeted cancer cells, they rapidly clear from the body through the urinary system, along with any isotopes bound to the linker. This results in lower total body radiation exposure when compared to radiopharmaceuticals designed with longer lived isotopes or larger molecular weight targeting moieties such as antibodies or antibody fragments. Perspective believes that its TAT's ability to promote clearance without compromising the tumor's uptake of the alpha particle overcomes a longstanding challenge of radiopharmaceutical drug development.

Perspective's Chemistry and Biology Expertise with ^{212}Pb

Perspective believes that its experience working with alpha-emitting radiopharmaceuticals positions it to build on the success of currently approved radiopharmaceuticals. By utilizing the advantages of ^{212}Pb and its proprietary chelator, Perspective has the ability to develop next-generation radiopharmaceutical therapies. ^{212}Pb has complex chemistry and requires extensive experience and expertise to develop and properly characterize ^{212}Pb radiopharmaceuticals with regard to the required tumor targeting, shelf-life, in vivo stability and potential for commercial-scale manufacturing. For example, the high energy emitted from ^{212}Pb can cause program candidates to prematurely degrade. Perspective believes it has the experience and know-how to develop molecules and formulations of ^{212}Pb to maximize the shelf-life of its program candidates and allow for regional production and distribution. In addition to a deep understanding of the chemistry of ^{212}Pb, Perspective has differentiated knowledge of the underlying biology of ^{212}Pb and its mechanisms of directly damaging the DNA of tumors through single- and double-stranded DNA breaks, causing the Bystander Effect and using the immune system's adaptive response to attack non-target expressing tumors in order to stimulate a vaccine effect.

Imaging Diagnostics – ^{203}Pb (Lead-203)

For each of its program candidates, Perspective creates an imaging analogue that utilizes the same linker and targeting molecule but replaces ^{212}Pb with the radioactive imaging isotope ^{203}Pb. This allows Perspective to assess uptake of the imaging analogue into the targeted tumor and to determine radiation doses to key organs. The imaging analogue versions of Perspective's program candidates are leveraged in both preclinical and clinical development and are used to enrich the patient population in its clinical trials by identifying the patients and tumor types more likely to respond to therapy.

^{203}Pb is a gamma-emitting nuclide that acts as the diagnostic in Perspective's innovative theranostic approach. ^{203}Pb has a long enough half-life to facilitate radiopharmaceutical preparation and gamma-ray imaging (e.g., SPECT or planar gamma camera) at time points up to 24 hours and, potentially, 48 hours post administration. The ability to collect data on the biodistribution of ^{203}Pb over this period allows for a more detailed understanding of tumor and other organ accumulation, retention and clearance that can be used as part of a treatment planning process for determining appropriately administered radioactivity levels of ^{212}Pb for alpha-particle therapy.

Perspective's Pipeline

Perspective is leveraging its TAT platform to advance a pipeline of alpha-based therapeutic programs to treat various cancers. The figure below details its current pipeline of TATs. To date, Perspective has retained global development and commercialization rights to all its program candidates. In January 2024, Perspective announced it had entered into a strategic agreement with Lantheus whereby in exchange for an upfront payment of $28 million (less certain withholding amounts), Lantheus obtained an exclusive option to negotiate for an exclusive license to Perspective's [^{212}Pb]VMT-α-NET and a right to co-fund the IND-enabling studies for early-stage therapeutic candidates targeting PSMA and gastrin-releasing peptide receptor and, prior to IND filing, a right to negotiate for an exclusive license to such candidates.

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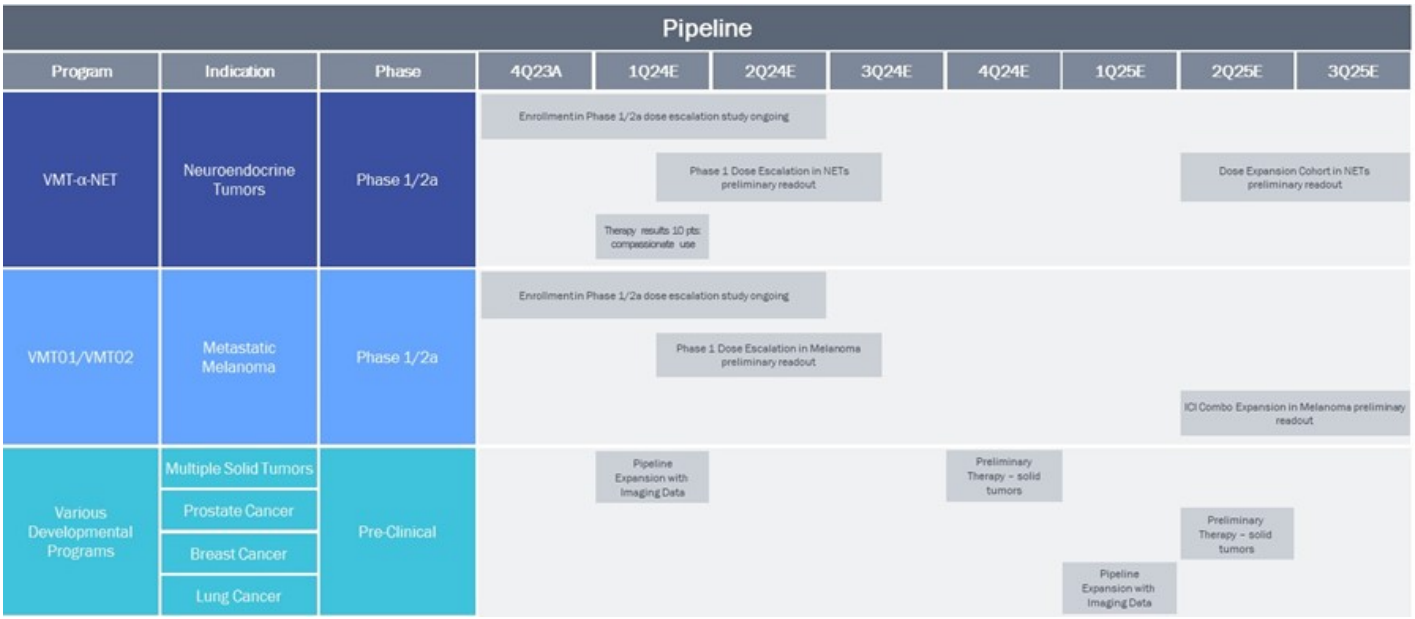
The table below shows Perspective's two lead programs in clinic and its broad proprietary pipeline:

Program	Indication	Discovery	Human Clinical Imaging	First in Human Therapy	Phase 1/2	Phase 3
VMT-α-NET	Neuroendocrine cancers					
	Pheochromocytomas, paragangliomas					
	Small cell lung cancer					
VMT01	Melanoma (MC1R)					
VMT02 *(PET agent)*	Melanoma (imaging of MC1R)					
PSV359 *(Novel peptide)*	Multiple solid tumors					
PSV40X *(Radio-hybrid)*	Prostate (PSMA imaging & therapy)					
Program 5 *(Novel peptide)*	Prostate, Breast					
Pre-targeting Platform *(mAbs)*	Solid and hematological tumors					
Other Programs *(Novel peptides)*	Solid and hematological tumors					

Perspective anticipates multiple near-term data readouts on its clinical and preclinical assets as follows:



Programs

VMT-α-NET: A Targeted Alpha Therapy Targeting SSTR2

Overview

Perspective is leveraging its TAT platform with one of its two initial program candidates, VMT-α-NET, that is currently in Phase 1/2a clinical trials. Perspective designed VMT-α-NET to target and deliver ^{212}Pb to tumor sites expressing somatostatin receptor subtype 2 ("SSTR2"), a protein that is overexpressed in neuroendocrine tumors ("NETs") and other cancers. Using our proprietary platform technology, VMT-α-NET and VMT01 are engineered to target cancer-specific receptors on tumor cells. [^{212}Pb]VMT-α-NET is a TAT in development for patients with unresectable or metastatic SSTR2-expressing tumors who have not previously received peptide-targeted radiopharmaceutical therapy, such as Lutathera. [^{212}Pb]VMT01 is a TAT in development for second-line or later treatment of patients with progressive MC1R-positive metastatic melanoma.

NETs are a group of rare, heterogeneous tumors that develop in different organs of the body and arise from specialized cells in the neuroendocrine system. Both the incidence and prevalence of NETs have continued to rise globally over several decades, primarily due to improvements in the diagnosis and surveillance of disease. The worldwide incidence of NETs is projected to reach 118,475 new cases in 2024 (source: Global Data). In the U.S. alone, the incidence of NETs has increased more than 6-fold over the last four decades to an anticipated 34,592 new cases in 2024 (source: Dasari A, Shen C, Halperin D, et al. Trends in the Incidence, Prevalence, and Survival Outcomes in Patients with Neuroendocrine Tumors in the United States. JAMA Oncol. 2017;3(10):1335-1342. doi:10.1001/jamaoncol.2017.0589). Earlier detection has not only given rise to an increase in localized disease diagnoses but also improvements in staging, disease classification, management and survival. Despite these advancements, delayed diagnosis is still common due to asymptomatic presentation or nonspecific symptoms. Gastroenteropancreatic NETs, or GEP NETs, represent the most common NET subtype, comprising 55–70% of all NETs followed by lung (22-27%) (source: Patel N, Benipal B. Incidence of Neuroendocrine Tumors in the United States from 2001-2015: A United States Cancer Statistics Analysis of 50 States. Cureus. 2019;11(3):e4322. Published 2019 Mar 26. doi:10.7759/cureus.4322). Current prevalence of NETs in the U.S approximates at 170,000 patients per year. As NETs display a wide variety of biologic behavior, the prognosis differs immensely between indolent limited disease grade 1 tumors and widely spread grade 3 carcinomas.

The median overall survival also varies widely in the highly heterogeneous NET populations and is based on site, stage and grade of disease. It is estimated that 80% of NETs over-express SSRT2. For this reason, somatostatin analogues are a cornerstone of the treatment of most NETs. In addition to SSTR2 analogs, low-grade and/or localized disease is amenable to surgical intervention and carries a good prognosis in terms of five-year overall survival (>90%), but there remains recurrence risk (source: Chan H, Zhang L, Choti MA, et al. Recurrence Patterns After Surgical Resection of Gastroenteropancreatic Neuroendocrine Tumors: Analysis From the National Comprehensive Cancer Network Oncology Outcomes Database. Pancreas. 2021;50(4):506-512. doi:10.1097/MPA.0000000000001791). High-grade and/or distant disease is more difficult to treat and carries lower median survival rates typically measured in months (source: Das S, Dasari A. Epidemiology, Incidence, and Prevalence of Neuroendocrine Neoplasms: Are There Global Differences?. Curr Oncol Rep. 2021;23(4):43. Published 2021 Mar 14. doi:10.1007/s11912-021-01029-7). Radioligand therapy has emerged as a promising therapeutic option for GEP NETs in late stage and is being evaluated for earlier lines of treatment. Perspective believes there is additional opportunity for radioligand therapy in earlier lines of treatment and other somatostatin-expressing NET indications, such as lung and pheochromocytoma/paraganglioma NETs, where there remains significant unmet medical need. Worldwide sales for systemic NET treatments are estimated to reach $3.2 billion by end of 2025, of which the U.S. sales represents over 60% (source: Global Data).

Using a specialized peptide, VMT-α-NET is designed to target and bind to the SSTR2 on tumor cells. As a diagnostic, Perspective links ^{203}Pb, a radioactive imaging agent that emits gamma rays, to its SSTR2-targeting peptide. Through the use of imaging scans, Perspective is able to characterize the tumor to confirm the patient's cancer expresses SSTR2. This confirms the patient may be a candidate for treatment. As a therapeutic, Perspective links ^{212}Pb, its alpha-particle radioactive isotope, to the same SSTR2 targeting peptide which has been shown to bind to the cancerous cell, to treat and potentially kill the tumor.

In August 2022 Perspective received a "safe to proceed" decision on an Investigational New Drug ("IND") application with the U.S. Food and Drug Administration ("FDA") to evaluate [^{212}Pb]VMT-α-NET therapy under IND #160357. The indication of the opening study is treatment of advanced SSTR2-positive NETs patients who are progressing on, symptomatic on, or intolerant of approved non-radiological therapies. On September 29, 2022, Perspective received Fast Track Designation for this program based on preclinical data for the indication of SSTR2-positive NETs regardless of prior treatment response.

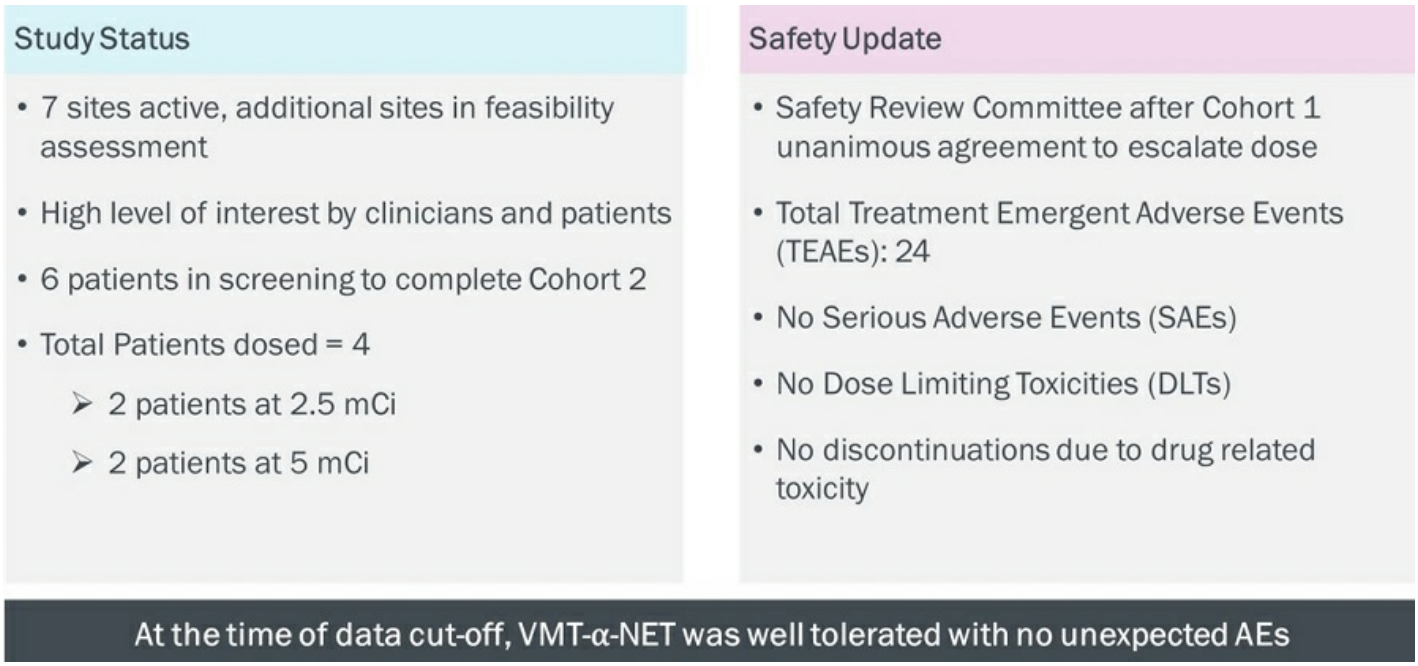
Additionally, Perspective believes there is an opportunity for Orphan Drug Designations for VMT-α-NET for NET subtype indications. There is also potential for a priority review voucher if Perspective pursues the rare pediatric disease of advanced neuroblastoma as Perspective's best path for drug approval after review of Phase 1 trial data.

Clinical Studies of ^{212}Pb-VMT-α-NET

Perspective has a multi-center open-label study (clinicaltrials.gov identifier NCT05636618) of [^{212}Pb]VMT-α-NET, a targeted alpha-particle therapy, for patients with advanced SSTR2-positive neuroendocrine tumors. This study is intended to utilize a mTPI-2, or modified toxicity probability interval 2, dose-ranging design to evaluate approximately 10 - 32 adult subjects with unresectable or metastatic NETs of gastrointestinal, lung, adrenal or neural tissue origin. The primary endpoints of this study are safety and tolerability, determination of a recommended dose for subsequent study and determination of pharmacokinetic ("PK") properties. Secondary endpoints are overall response rate by RECIST v.1.1, progression-free survival by RECIST v.1.1 and overall survival. The first part of the study involves dose escalation, designed to determine the maximum tolerated dose ("MTD") or maximum feasible dose ("MFD") following a single administration of [^{212}Pb]VMT-α-NET. The first patient cohort received 111 MBq (3mCi) per dose. The second cohort, which is currently being recruited, will receive administered activities of 185 MBq (5mCi), with cohorts 3 and 4 receiving 370 MBq (10 mCi) and 555 MBq (15 mCi), respectively, if the MTD or MFD is not reached during escalation. According to the mTPI-2 study design, intermediate de-escalation doses are also possible to allow selection of the optimal activity dose to take forward into the dose expansion part of the study.

The second part of the study is a dose expansion phase based on the identified MTD/MFD. Patients with positive uptake on FDA-approved SSTR2 PET/CT will receive a fixed dose of [^{212}Pb]VMT-α-NET IV administered at the recommended Phase 2 dose and schedule determined in the Phase 1 dose escalation.

In March 2024, Perspective provided the following update on the ongoing clinical trial (all data is as of March 7, 2024):



Preclinical Studies of ^{212}Pb-VMT-α-NET

Perspective's therapeutic [^{212}Pb]VMT-α-NET has demonstrated positive clinical activity in preclinical studies using a mouse model of NETs, whereby [^{212}Pb]VMT-α-NET significantly inhibited tumor growth and significantly improved survival compared to untreated mice controls.

Perspective's diagnostic [^{203}Pb]VMT-α-NET has produced strong SPECT/CT imaging and tumor contrast in multiple preclinical studies using mouse models of tumors expressing SSTR2, whereby [^{203}Pb]VMT-α-NET has shown an 8-fold improved tumor uptake with decreased kidney retention as compared to ^{203}Pb radiolabeled DOTATOC. DOTATOC is an established targeting compound for imaging SSTR2-expressing NETs when radiolabeled to positron emission tomography ("PET") isotopes.

The Company also presented mouse model data highlighting the efficacy of [$^{203/212}$Pb]VMT-α-NET in treating metastatic neuroblastoma tumors. The study showed successful tumor uptake via sequential SPECT imaging and demonstrated a maximum tolerated dose of [^{212}Pb]VMT-α-NET as 2.22 MBq without acute toxicity, with a 100% overall survival rate at 90 days observed in the group receiving three fractionated doses of 740 kBq of [^{212}Pb]VMT-α-NET.

At the World Molecular Imaging Congress, the Company presented data highlighting the effectiveness of [^{212}Pb]VMT-α-NET in treating neuroendocrine tumors in a tumor xenograft mouse model. The results highlighted the significant therapeutic efficacy of treatment with three fractionated doses of [^{212}Pb]VMT-α-NET, which resulted in a 70% complete response rate and 80% survival at 120 days.

Perspective's first-in-human experience with [^{203}Pb]VMT-α-NET imaging occurred as an investigator-initiated trial ("IIT") at the University of Ulm in Dresden, Germany in 2021 in a patient with metastatic and refractory gastrointestinal NET. Imaging from this study using [^{203}Pb]VMT-α-NET revealed favorable properties, including rapid tumor accumulation, rapid renal clearance and excellent tumor retention as seen by SPECT/CT imaging at 22 hours with high tumor conspicuity. There were no adverse signs or symptoms attributed to the imaging tracer. The pharmacokinetic and biodistribution properties of the imaging agent, based on medical physics analysis, suggest the potential for the chemically identical therapeutic agent, [^{212}Pb]VMT-α-NET, to be administered without concurrent renal protective amino acid infusion in radiotherapy naïve patients. This would be a clinically relevant point of differentiation from the current practice using approved radiopharmaceutical products for NETs.

Investigator-Initiated Studies of ^{212}Pb/^{203}Pb-VMT-α-NET

An investigator-initiated Phase 1 imaging trial of [^{203}Pb]VMT-α-NET is expected to begin at the University of Iowa to investigate the feasibility of using the agent to enable personalized, image-guided therapy dose calculations for [^{212}Pb]VMT-α-NET therapy in patients with recurrent NETs after treatment with approved radiopharmaceutical therapy. An Imaging IND is open for this trial and IRB approval has been obtained. Perspective is uncertain when the provisional results will be available.

In December 2023, Perspective announced that the first patient was dosed at the University of Iowa in an investigator-initiated Phase 1 trial evaluating the safety of [^{212}Pb]VMT-α-NET, in patients with unresectable or metastatic SSTR2-expressing neuroendocrine tumors. The patients being enrolled in the study have either progressed or relapsed after previous therapies, including currently approved peptide receptor radionuclide therapies ("PRRT"). This is a single site safety study (clinicaltrials.gov identifier NCT06148636) of [^{212}Pb]VMT-α-NET targeted alpha-particle therapy for patients with refractory or relapsed SSTR2-positive neuroendocrine tumors. The first part of this Phase 1 trial is imaging with a surrogate tracer, [^{203}Pb]VMT-α-NET, using SPECT/CT imaging. Each participant is assigned a radiation dose to the kidneys that cannot be exceeded. The second part of the study is a sequential 3 + 3 dose escalation phase of four cohorts based on the maximum allowed injected dose for an individual while keeping kidney exposure to less than a predetermined threshold. The study involves two treatments, about eight to ten weeks apart. The drug will be given by infusion once per treatment. Participants will also receive an infusion of amino acids to help protect the kidneys as well as medications to help protect against nausea. A participant who is administered [^{212}Pb]VMT-α-NET will be monitored for at least six months for safety assessments. Participants will also have imaging at six months post-treatment to measure how their tumors responded to therapy and will have lifelong follow-up for this study. The preliminary data readout is expected in the second half of 2024.

In November 2023, Perspective announced the publication of the first human SPECT images utilizing the alpha-emitting isotope of ^{212}Pb, which was labeled to the Company's proprietary theranostic VMT-α-NET program. The imaging was conducted as part of a series of four neuroendocrine tumor patients who were administered VMT-α-NET at a clinical study site in Germany. The patient received 90 MBq (2.4mCi) of [^{212}Pb]VMT-α-NET intravenously, and whole-body scintigraphy and SPECT/CT images were acquired 2 hours, 5 hours, and 19 hours after injection. Images were collected on a Symbia Intevo T6 (Siemens Healthineers) using a high-energy collimator. The SPECT/CT images showed high accumulation of [^{212}Pb]VMT-α-NET in liver metastases and were consistent with the previously acquired [^{68}Ga]DOTATATE PET/CT. High tumor retention was observed in the planar and SPECT/CT images over time. Due to the short half-life of ^{212}Pb (10.6 hours), the images acquired after 19 hours showed a high level of noise due to the low count statistics. The patient showed no early or acute side effects.

In September 2023, the Company announced the presentation of encouraging early clinical results from an open-label, single-arm, investigator-initiated study in India investigating the safety and efficacy of [^{212}Pb]VMT-α-NET in patients with NETs and medullary thyroid carcinomas. The early clinical findings were presented at the 36th Annual Congress of the European Association of Nuclear Medicine ("EANM") for the Phase 2a study of [^{212}Pb]VMT-α-NET in pre- and post-Lutathera GEP-NET patients, being conducted at Fortis Healthcare, India. Ten adult patients with histologically confirmed NETs and metastatic medullary thyroid carcinomas who failed at least one prior line of treatment were treated as part of an IIT. All patients were planned to receive [^{212}Pb]VMT-α-NET peptide at intervals of eight weeks up to four doses or until evidence of radiographic progression, unacceptable toxicity or the patient's decision to discontinue. All patients were to be co-infused with an amino acid solution for renal protection. The primary objective of the study is to evaluate the safety of low doses of [^{212}Pb]VMT-α-NET in this patient population. Secondary assessments will include objective response rate measured by RECIST 1.1 or PERCIST criteria, and the number of patients with treatment-related adverse events as assessed by CTCAE v.4.0. Both will be measured at 24 months after the last administered dose of [^{212}Pb]VMT-α-NET. The isotope was supplied via the Company's proprietary VMT-α-GEN isotope delivery system.

Highlights of the presented results at EANM included:

- Ten patients who failed at least one prior line of standard of care therapy have received [^{212}Pb]VMT-α-NET therapy to date, with initial responses observed in seven of nine evaluable patients. Responses were observed across both PRRT-naïve and PRRT-refractory disease. Of the 10 patients enrolled in the study, three presented with gastrointestinal NETs, five presented with pancreatic NETs, and two presented with medullary thyroid carcinoma. Four patients (one with gastrointestinal NETs; three with pancreatic NETs) were previously treated with [^{177}Lu]DOTATATE PRRT, one of which also received three prior administrations of [^{225}Ac]DOTATATE.
- Improvements in patients' symptoms and quality of life trended strongly positive with consecutive [^{212}Pb]VMT-α-NET doses.
- No significant renal or hepatic function adverse events have been observed to date. Most adverse events were mild and included Grade 1 anemias, alopecia and fatigue, which usually resolved within one week of [^{212}Pb]VMT-α-NET administration. Two patients experienced serious adverse events that were deemed unrelated to [^{212}Pb]VMT-α-NET treatment. One patient who developed myelodysplastic syndromes discontinued treatment and the other patient, who was heavily pre-treated, died (patient was deemed not evaluable).

Three additional patients were enrolled in the second half of 2023 for a total of ten GEP-NET patients and two medullary thyroid cancer patients. All ongoing patients are expected to complete their fourth treatment cycle by end of March 2024. The updated results from the investigator-initiated study are expected to be presented at the Society of Nuclear Medicine and Molecular Imaging, or SNMMI, meeting in Toronto at the end of the second quarter in 2024.

Three patients were screened in 2023 in the IIT in post-Lutathera GEP-NET, and all three patients were located at the University of Iowa. All three patients received treatment in December 2023 for the completion of the first cohort. If all patients complete four cycles, then the end of fourth cycle of treatment is expected in June 2024.

The IIT for patients with advanced NETs and lack of further treatment options is underway at the University Dresden in Germany. Four patients were treated with [^{212}Pb]VMT-α-NET and eight patients were imaged with [^{203}Pb]VMT-α-NET during the second half of 2023, and investigators may plan additional treatments in 2024.

VMT01: A Targeted Alpha Therapy Targeting MC1R

Overview of VMT01and VMT02

Perspective is also leveraging its TAT platform with its second program candidate, VMT01, which is currently in Phase 1/2a clinical trials. Perspective designed VMT01 to target and deliver ^{212}Pb to tumor sites expressing MC1R, a protein that is overexpressed in melanoma cancers. Review of market research by Grandview Research, Inc., and ForeSight Niche Assessment indicates metastatic melanoma represents over an $8.0 billion market opportunity.

Using a specialized peptide, VMT01 is designed to target MC1R on tumor cells. As a diagnostic, Perspective either links ^{203}Pb or Gallium-68 to its MC1R-targeting peptide. MC1R is a G-protein coupled receptor that has been investigated as a target for metastatic melanoma drug delivery due to its overexpression on the surface of melanoma cells and relative absence in normal cells. MC1R-targeted radiolabeled peptides have been used as delivery vehicles for delivering radiometals to melanoma tumors in preclinical models for diagnostic imaging and therapy, as well as in clinical imaging studies that demonstrated the ability to identify MC1R-positive tumors by PET imaging.

Perspective also designed two imaging surrogates, the chemically identical [^{203}Pb]VMT01 for SPECT imaging and dosimetric calculations and [^{68}Ga]VMT02, a PET imaging tracer, for patient selection. [^{68}Ga]VMT02 utilizes the same targeting peptide as VMT01 but differs in having a chelator optimized for PET radiotracers (DOTA). Through the use of the imaging scans, Perspective is able to characterize whether the patient's cancer expresses MC1R. This confirms the patient may be a candidate for treatment. As a therapeutic, Perspective links ^{212}Pb to the same MC1R targeting peptide which has been shown to bind to the cancerous cell, to treat and potentially kill the tumor. The melanoma program focuses primarily on development of the therapeutic compound. The rationale for the development of two imaging tracers is to provide flexibility in imaging a molecular target for which a validated and approved imaging tracer does not exist. Further commercialization of one or both of these imaging tracers will follow a separate regulatory path from the therapeutic compound and will proceed based on the potential for utility after a therapeutic efficacy signal is identified.

VMT01 and VMT02 peptides bind with high affinity and specificity to melanoma tumors (where MC1R is present) and do not bind to healthy cells (where MC1R is absent). Thus, the radioactive nuclide carried by the peptide is delivered primarily to tumor cells, while nonspecific binding to healthy cells is minimal. Treatment is carried out in two stages. In the first stage (i.e., the diagnostic stage), [^{203}Pb]VMT01 or [^{68}Ga]VMT02 is administered for SPECT or PET imaging, respectively. The decay of radionuclides ^{203}Pb and ^{68}Ga result in gamma radiation that can be detected by the imaging device. This detection can be used to pinpoint the presence of cancerous tumors expressing MC1R and illuminate the pharmacokinetic properties and biodistribution of the radiopharmaceutical. This information can be used to guide the second stage (i.e.,the therapeutic stage) with [^{212}Pb]VMT01, in which radionuclide ^{212}Pb replaces ^{203}Pb and ^{68}Ga. [^{212}Pb]VMT01 is designed to deliver alpha (α) radiation efficiently to melanoma tumors that express the MC1R receptor. This two-stage process is commonly referred to as image-guided receptor-targeted alpha-particle radionuclide therapy for cancer and is also referred to as a "theranostic" approach.

Nonclinical pharmacology, pharmacokinetics and toxicology studies utilizing in vitro and in vivo assays, SPECT and PET imaging and histopathology were conducted by the sponsor to support the first-in-human Phase 1/2a clinical development of [^{212}Pb]VMT01 per recommendations in the United States Food and Drug Administration Guidance document titled “Oncology Therapeutic Radiopharmaceuticals: Nonclinical Studies and Labeling Recommendations Guidance for Industry.” Promising results have demonstrated an increase in progression-free survival, improvement in overall survival and, in some cases, complete remission in mice bearing murine and human melanoma tumors. Perspective has also observed significant synergy with checkpoint inhibitors in animal models that are resistant to immunotherapy alone and a subset of animals receiving the combination therapy demonstrate resistance to re-inoculation with naive melanoma cells.

Management believes that there are currently no FDA approved peptide-based receptor targeting approaches for the treatment of metastatic melanoma. The goal of the theranostic approach with [^{203}Pb]VMT01 or [^{68}Ga]VMT02 (diagnosis) and [^{212}Pb]VMT01 (therapy) is to establish a new methodology to treat patients with MC1R-expressing tumors that has the potential to improve long-term outcomes.

Role of VMT01 in Advanced Melanoma Treatment

Melanoma is a cancer of the skin arising from uncontrollable growth of melanocytes, the melanin producing cells of the body. Melanoma generally originates on the epidermis (the outermost layer of skin). In rare instances, melanoma can originate in the eyes or mucosal membranes, as these are other locations where melanocytes are present. Metastatic melanoma is the result of melanoma that has progressed through the layers of skin, infiltrated the blood stream or lymphatic system and traveled to other areas of the body to metastasize.

The worldwide melanoma incidence is estimated to reach 335,160 new cases in 2024 (source: GlobalData) and the risk of melanoma increases as people age, with the average age of diagnosis being early to mid 60s. Melanoma is a global disease affecting all populations around the world. The risk of developing melanoma increases significantly in areas of high ultraviolet exposure and for people with fair complexion. Particularly high incidences are observed in North America, Northern Europe and New Zealand. The highest occurs in Australia, where annual rates are more than twice that of North America. In the U.S., there will be an estimated 107,879 new diagnoses of melanoma by 2025 (representing one-third of all cases worldwide) and approximately 7,868 deaths annually from metastatic melanoma (source: GloboCan). In most cases, metastatic melanoma cannot be cured but treatment can support a longer life.

The National Cancer Institute’s Surveillance, Epidemiology, and End Results ("SEER") Program estimates 77% of all melanoma cases in the United States are local disease, receiving surgical treatment followed by watchful waiting. Melanoma that has regional spread (stage III) indicates spreading to nearby lymph nodes and accounts for 9% of cases, with a five-year survival ranging from 93% for stage IIIA to 32% for stage IIID reported in 2021 (source: Tonella L, Pala V, Ponti R, Rubatto M, Gallo G, Mastorino L, Avallone G, Merli M, Agostini A, Fava P, Bertero L, Senetta R, Osella-Abate S, Ribero S, Fierro MT, Quaglino P. Prognostic and Predictive Biomarkers in Stage III Melanoma: Current Insights and Clinical Implications. Int J Mol Sci. 2021 Apr 27;22(9):4561. doi: 10.3390/ijms22094561. PMID: 33925387; PMCID: PMC8123895). Metastatic melanoma is classified as stage IV, where melanoma metastasizes to distant organs, such as the brain, lungs or liver, and contains any T or N value in the TNM staging system. Metastatic melanoma accounts for 4% of cases and carries a poor prognosis with a five-year survival of 30% (source: SEER). The majority of metastatic melanoma patients will receive some form of immunotherapy; however, more than 50% ultimately progress. Patients with tumors positive for the BRAF mutation who progress on immunotherapy can receive targeted therapy; however, these patients ultimately acquire resistance. Thus, the majority of metastatic melanoma patients who eventually progress on immunotherapy (and targeted therapy if BRAF positive) are left with very limited options and represent the patient population with the greatest unmet need in melanoma (source: Global Data). This segment of the melanoma population is the intended entry market for VMT01. Worldwide sales for the systemic treatment of advanced melanoma are expected to reach $6.7 billion by 2025 with the U.S. accounting for over 60% of the market, or approximately $4.0 billion in sales (source: Global Data).

Leading treatments for metastatic melanoma are typically not curative. Treatments include immunotherapy to help the immune system recognize evading cancer cells, targeted therapy to interfere with known cancer processes, radiation therapy to kill cancer cells via high-energy X-ray or proton beams and chemotherapy to attack rapidly dividing cancer cells. Immunotherapies and targeted mitogen-activated protein kinase inhibitor ("MAPKi") cell therapies have improved outcomes, but low response rates, acquired drug resistance and adverse side effects have limited quality of life for metastatic melanoma patients. The most dramatic improvements in response (combination therapies; up to 61%) have often been reported to lead to grade 3/4 adverse events and therapy discontinuation. Recurrence is common, with complex mechanisms of resistance that include altered oncogenic pathways, tumor heterogeneity and enhanced DNA repair. Perspective’s TAT platform using [^{212}Pb]VMT01 has the potential to overcome many of these resistance pathways. Perspective’s intent is to test the safety and tolerability of [^{212}Pb]VMT01in previously treated patients who are experiencing progression or recurrence of disease as monotherapy and seek approval for testing in combination with first-line immunotherapies as soon as a preliminary safety profile is established and regulatory approval is obtained.

Clinical Studies of ^{212}Pb–VMT01

In 2020, Perspective filed an IND application with the FDA to evaluate [^{203}Pb]VMT01 and [^{68}Ga]VMT01 imaging in adults with advanced stage melanoma under IND #152145, which was given a "safe to proceed" designation on August 21, 2020. Perspective completedevaluating [^{203}Pb]VMT01 and [^{68}Ga]VMT01 in a first-in-human Phase 1 imaging study conducted at the Mayo Clinic in Rochester, MN. This study utilizeda cross-over design wheresix subjects with stage IV unresectable melanoma were imaged. The primary endpoints of this study are safety and biodistribution and secondary endpoints are molecular target validation and image quality. Perspective has finished enrolling subjects in the study and is nearing completion of analysis of the dosimetry portion of the trial. Perspective is working on the clinical study report and anticipates it will be released in the first half of 2024. Positive imaging of MC1R was seen in a subset of patients using both agents, and no treatment-related adverse events have been observed to date.

On January 21, 2022, Perspective received an IND "safe to proceed" letter from the FDA to evaluate [^{212}Pb]VMT01 in patients with advanced and progressive melanoma. Perspective’s ongoing trial of [^{212}Pb]VMT01 (clinicaltrials.gov identifier NCT05655312) is a multi-center, open-label dose escalation, dose expansion study in subjects with histologically confirmed melanoma and MC1R-positive imaging scans. The first part of the study is a dose escalation phase to determine the MTD or MFD following a single administration of [^{212}Pb]VMT01. In October 2023, Perspective announced that recruitment for the first patient cohort was complete, and those patients received 111 MBq (3mCi) per dose. The second cohort, which is currently being recruited, will receive administered activities of 185 MBq (5mCi), with cohorts 3 and 4 receiving 370 MBq (10 mCi) and 555 MBq (15 mCi), respectively, if the MTD or MFD is not reached during escalation. According to the mTPI-2 study design, intermediate de-escalation doses are also possible to allow selection of the optimal activity dose to take forward into the dose expansion part of the study.

The second part of the study is a dose expansion phase based on the identified MTD/MFD. Patients may be eligible to receive up to three administrations of [^{212}Pb]VMT01 approximately eight weeks apart. A dosimetry sub-study is included to assess biodistribution, tumor uptake and correlation of uptake with observed toxicities and efficacy.

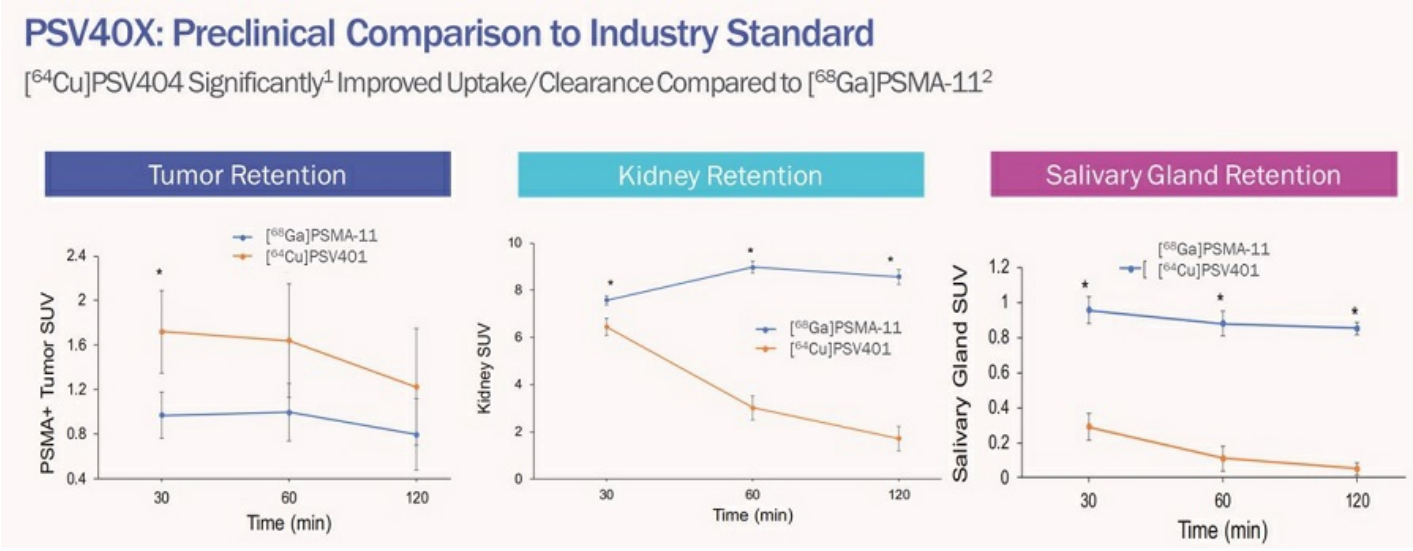
In March 2024, Perspective provided the following update on the ongoing clinical trial (all data is as of March 7, 2024):

In March 2024, Perspective announced a clinical trial collaboration agreement with Bristol Myers Squibb to evaluate the safety and tolerability of [^{212}Pb]VMT01 in combination with Bristol Myers Squibb's nivolumab in patients with histologically confirmed melanoma and positive MC1R imaging scans. This combination study is an amendment to the Company's ongoing Phase1/2a study of [^{212}Pb]VMT01 in patients with metastatic melanoma.

PSV40X: A Differentiated PSMA-Targeted Alpha Therapy

On December 31, 2023, Perspective entered into an exclusive patent license agreement with the Mayo Clinic for the rights to the PSMA Alpha-PET DoubLET platform technology for the treatment of PSMA-expressing cancers, with an initial focus on prostate. The PSMA Alpha-PET DoubLET platform technology represents a potential leap forward in the field of prostate cancer diagnostics and treatment. This leading radiopharmaceutical platform provides detailed PET imaging-based diagnosis and dosimetry using long-lived copper-64 (^{64}Cu) for imaging and alpha-particle-targeted radiopharmaceutical therapy ("RPT") using ^{212}Pb. It can also be used for beta-particle-targeted RPT using copper isotopes. Prostate cancer is the second-most prevalent form of cancer affecting men worldwide, emphasizing the critical need for advanced technologies to improve early detection and treatment outcomes. For 2023, the Cancer Institute estimated 88,300 new cases of prostate cancer in the U.S. and around 34,700 deaths from the disease.

Preclinical studies demonstrated a high degree of radiation delivered to tumors while minimizing exposure to critical organs and tissues, particularly a reduction in salivary gland uptake and kidney retention (Johnson et al., RPT Interest Group June 7 2023 https://rrp.cancer.gov/working_groups/AlphaPET-RPT_Int_group_lecture.pdf) as noted in the graphic below.



1 indicates $p < 0.05$ [64Cu]PSV401 vs [68Ga]PSMA-11 (all data sets as indicated)
2 Johnson et al., RPT Interest Group June 7 2023 https://rrp.cancer.gov/working_groups/AlphaPET-RPT_Int_group_lecture.pdf;
3 SUV = Standardized Uptake Variable

Pre-Targeting Theranostic Targeting Platform - The Next Generation of TAT

In February 2024, Perspective announced that it has executed an exclusive, worldwide license agreement with Stony Brook University for the global intellectual property rights to its Cuburbit[7]uril-admantane ("CB7-Adma") pre-targeting platform and has applied for the Phase 1 tranche of a 2.5-year Fastrack Small Business Innovation Research grant (Phase 1 $400 thousand; total $2.4 million) from the National Institutes of Health's ("NIH") National Cancer Institute ("NCI") in support of Perspective's CB7-Adma host-guest pre-targeting program for the diagnosis and treatment of cancer.

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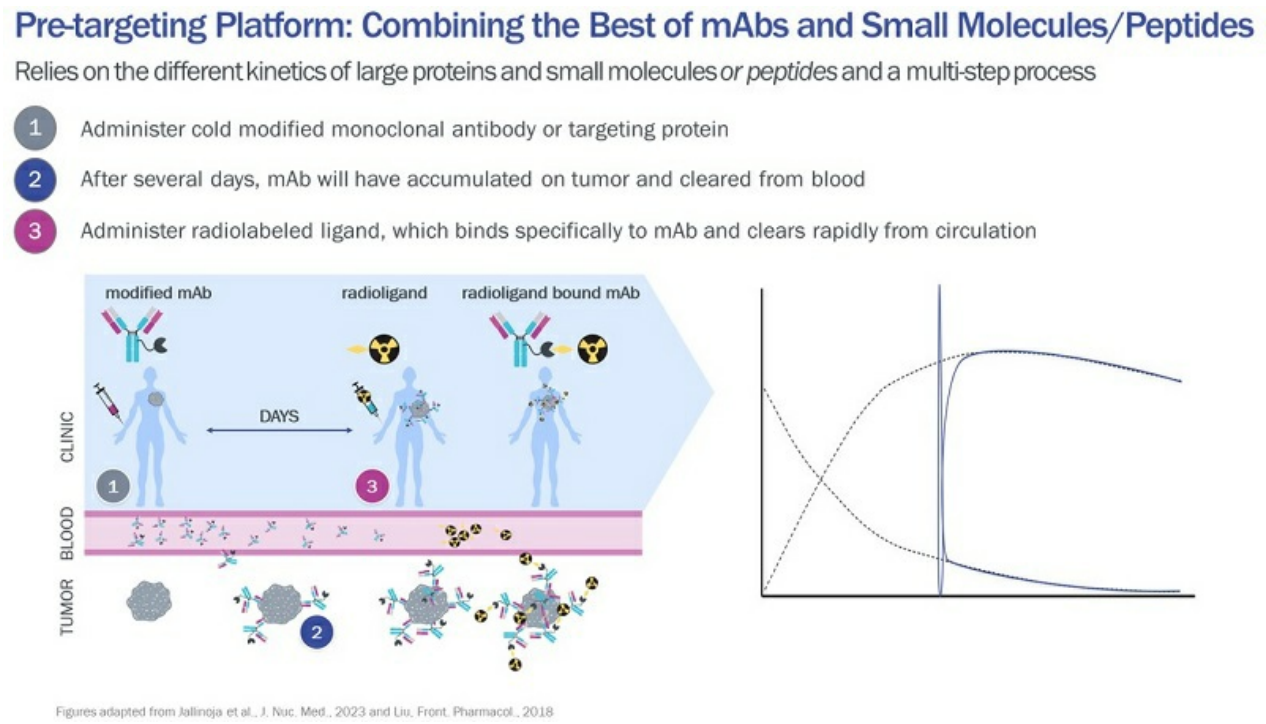
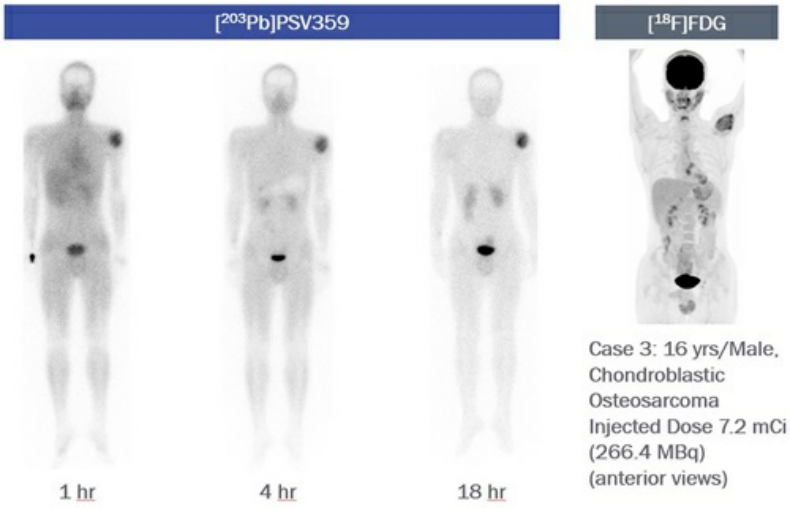
Pre-targeting using the CB7-Adma platform involves two steps. First, an antibody that binds with high specificity to a cancer-specific protein is administered via intravenous injection. This antibody is chemically modified to include the CB7 chemical entity and accumulates over time at the tumor site. Then, a radionuclide held tightly by Perspective's proprietary chelator attached to an Adma group is administered. The Adma group binds to the CB7 group that was previously attached to the cancerous cells with remarkable specificity, delivering radiation dose selectively to the tumor sites.

Central to this innovation is CB7-Adma (host-guest) complex formation, driving the interaction between the antibody and radioligand. The chosen host-guest pair, CB7-Adma, demonstrates promising in vivo stability, modularity and low immunogenicity. The platform's potential was validated through in vivo profiling of ligands, employing a CB7-modified carcinoembryonic antigen ("CEA") targeting antibody.



PSV359 – A Targeted Alpha Therapy Targeting Fiber Activation Protein

Tumor stroma cells do not typically express cancer-specific markers like SSTR2 or MC1R. Fiber Activation Protein ("FAP") is primarily expressed on tumor stroma cells, but also on some cancer cells. FAP-α is a pan-cancer target that is highly expressed in many cancers. Perspective's in-house discovery team has developed an optimized peptide with potential best-in-class characteristics that has been demonstrated in preclinical models. In March 2024, Perspective released the first in human clinical SPECT/CT imaging which suggests the tumor targeting and retention of the PSV359 compound is excellent, while clearing from normal organs rapidly and completely. The FAP-α PSV359 program is a significant addition to Perspective's clinical pipeline of targeted alpha therapeutic assets and Perspective is working to file an IND application in late 2024 for this new program.



Images courtesy of Dr. Ishita B. Sen, Director & Head Department of Nuclear Medicine & Molecular Imaging at Fortis Memorial Research Institute, Gurgaon, India.

Manufacturing and Supply

Perspective has developed a proprietary isotope delivery system, colloquially called a “generator,” VMT-α-GEN, to allow for delivery of its preferred therapeutic isotope ^{212}Pb for supply to patients. Perspective has a license to possess radioactive materials and distribute our radiopharmaceuticals from the Iowa Department of Health and Human Services, Radioactive Materials Program at our Coralville, IA site. In January 2021, we entered into a 10-year feedstock contract with the National Isotope Development Center ("NIDC") of the Department of Energy's ("DoE") Isotope Program. Perspective receives feedstock shipments of Thorium-228 from the NIDC. Perspective also has contracts with various manufacturers to produce certain components of its VMT-α-GEN system. This has allowed Perspective to scale manufacturing of VMT-α-GEN for research purposes that Perspective believes will facilitate its alpha therapy clinical trials. Perspective believes that by controlling its own therapeutic isotope supply, it can solve the many supply chain risks that have slowed alpha-particle therapy clinical adoption to date.

Perspective assembles and manufactures its finished radiopharmaceutical candidates by chelating or trapping an atom of ^{212}Pb within a specialized chemical “cage” and connecting the ^{212}Pb within its cage to the targeting peptide with its proprietary linker technology. For clinical supply, Perspective intends to use a combination of third-party contract manufacturing organizations, or CMOs, and its own manufacturing sites, which comply with the FDA’s current good manufacturing practices, or cGMP, for the manufacture and distribution of its drug substance.

For the drug precursors and isotopes that comprise Perspective’s TAT platform, a variety of cGMP manufacturers have been engaged and qualified. Perspective procures chelator-modified peptide precursors from peptide manufacturers who are capable of producing cGMP precursor material. The imaging isotope ^{203}Pb is procured from manufacturers with appropriate radiation handling licensing and shipped to its production site in Coralville, IA, or to CMOs, while ^{68}Ga, is produced on site at PET radiopharmacies that have access to this isotope and are capable of producing finished product. Therapeutic isotope ^{212}Pb is supplied via Perspective’s proprietary ^{224}Ra/^{212}Pb isotope delivery systems (“generators”), which are manufactured by a CMO. These isotope delivery systems can be shipped globally to enable final finished radiopharmaceutical production. Perspective has received "safe to proceed" designations for two therapeutic IND applications in which its isotope delivery system was presented to the FDA for use in clinical trial manufacturing. Quality and stability testing for all of Perspective’s precursors is an ongoing process, and there have been no quality or stability issues in its supply chain to date.

For discovery activities and early phase clinical testing, Perspective has established a clinical drug manufacturing facility at its laboratories in Coralville, IA, to assemble the precursors into ready-to-use drug products. These facilities comprise approximately 2,000 square feet of wet laboratory facilities and a small finished product facility equipped with appropriate air and temperature handling and monitoring to comply with applicable clinical drug regulatory requirements. Perspective has staff experienced in finished radiopharmaceutical manufacturing and shipping who will not only supply drug product for its near-term activities but will also perform technology transfer to any CMOs where the finished production radiopharmaceuticals will be accomplished. Perspective has obtained all appropriate radiation handling licensing to provide clinical doses for its Phase 1/2 clinical trials. In addition, Perspective is capable of synthesizing peptides, chelators and linkers in its facilities in Coralville, and this capability enables it to perform research independently for pipeline development.

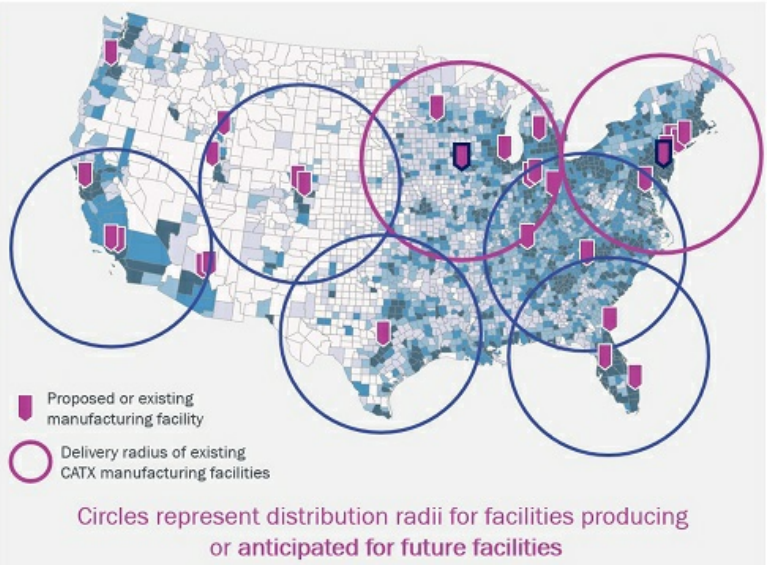
Short-list CMOs have locations that are strategically placed locally to major metropolitan areas that are within reach for delivery of Perspective’s radiopharmaceuticals for trials and ultimately for commercialization. Perspective is currently establishing a network of CMOs across the United States and is transferring know-how and technology to these CMOs to allow broader potential geographic coverage of radioactive products across its potential clinical trial sites. As noted in the graphic below showing a heat map of population in the United States, Perspective will be able to service a majority of cancer centers by strategically locating facilities throughout the United States.

Regional Manufacturing Allows Commercialization of ^{212}Pb-labeled Finished Products

The “network effect” ensures reliable supply for intermediate half-life therapeutics

Location	Radius 11 hr – 400 miles
Coralville, IA	51 m
Somerset, NJ	75 m
Los Angeles, CA	46 m
Austin, TX	32 m
Atlanta, GA	57 m
Orlando, FL	25 m

- Top 6 sites cover nearly 300 million people within a one half-life (11 hr) delivery radius[1]
- Products can also be driven further or flown as necessary



In March 2024, Perspective acquired the assets and associated lease of Lantheus' radiopharmaceutical manufacturing facility in Somerset, New Jersey. Perspective believes it will be able to convert the facility, which has three production suites, to manufacture finished radiopharmaceutical product using previously validated precursors. As a cGMP compliant facility, Perspective intends to utilize the facility to manufacture clinical supply of high quality ^{203}Pb-labeled tumor-specific peptides to visualize and diagnose tumors, and ^{212}Pb-labeled radiopharmaceuticals to treat target tumors with TAT. Moreover, with its three cGMP suites at the facility, Perspective expects to have the capacity to meet future clinical trial and commercial demands at major cancer treatment centers throughout the Northeastern U.S.

Perspective intends to continue to expand its manufacturing and supply network during 2024 as it anticipates increasing its clinical trial activities.

Commercialization

None of Perspective's current program candidates have received the regulatory approvals required to begin commercialization.

Competition

The life sciences and pharmaceutical industries are known to have rapid advancement of novel technologies, intense competition and a strong emphasis or intellectual property. While Perspective believes that its technology and intellectual property provide us with competitive advantages, we face potentia competition from multiple sources, including large pharmaceutical companies, specialty pharmaceutical and biotechnology companies, academic institutions government agencies and public and private research organizations.

Commercial and academic clinical trials are being pursued by a number of parties in the field of radiopharmaceuticals. Early results from these trials have fueled continued interest in radiopharmaceuticals, which is being pursued by several biotechnology companies, as well as by large pharmaceutica companies, including both commercial and academic clinical trials. Results from these trials, combined with recent product approvals, have garnered continued interest in the space by both large pharmaceutical companies and specialized biotechnology companies, which are developing both early-stage and later-stage candidates.

There are also several companies developing alpha-based radiopharmaceuticals for the treatment of cancer, including Bayer, Novartis, Bristol-Myers Squibb (with their recent acquisition of RayzeBio), Eli Lilly (with their recent acquisition of POINT Biopharma), Telix Pharmaceuticals Limited, Actinium Pharmaceuticals, Inc., RadioMedix, Inc., Orano Med, Aktis Oncology, Fusion Pharmaceuticals, Inc. (which announced on March 19, 2024 that they are being acquired by AstraZeneca), Aktis Oncology, Inc., Convergent Therapeutics, Janssen, ARTBIO and Curie Therapeutics, Inc. These companies use various alpha-emitting isotopes such as ^{223}Ra, ^{225}Ac, ^{212}Pb and ^{227}Th. Most alpha-based radiopharmaceuticals are in clinical development, with Bayer's Xofigo® being the only approved alpha particle-based therapy. Xofigo® was approved in 2013 for the treatment of symptomatic bone metastases in people with castration-resistant prostate cancer.

There are also companies with beta-based radiopharmaceuticals, both in development and already approved. There are multiple companies, including Lantheus, Novartis and Q BioMed Inc., with approved beta-based radiopharmaceutical products using isotopes such as ^{131}I, ^{177}Lu, ^{89}Sr and ^{90}Y. Novartis' Lutathera® and Pluvicto® are prominent beta-based radioligands, and other beta-based radiopharmaceuticals are in various stages of clinical development by companies including Novartis, Curium SAS, Nordic Nanovector, Cellectar Biosciences, ITM Isotope Technologies Munich SE, Clovis Oncology and Y-mAbs Therapeutics, Inc., Actinium Pharmaceuticals, Inc., Lantheus, Blue Earth Therapeutics and Clarity Pharmaceuticals.

For Perspective's program candidate [^{212}Pb]VMT-α-NET, the company is aware of several competing therapies targeting neuroendocrine tumors. Novartis' Lutathera®, which was approved in 2018, uses ^{177}Lu for the treatment of individuals with somatostatin receptor-positive gastroenteropancreatic neuroendocrine cancers. The Company is aware of the following companies with neuroendocrine tumor, radioligand preclinical and clinical development programs: ITM, Bristol-Myers Squibb (through their recent acquisition of RayzeBio), Eli Lilly (through their recent acquisition of POINT Biopharma) and Radiomedix. Perspective also faces potential competition from other treatments targeting neuroendocrine tumors such as Sandostatin® and Afinitor® (Novartis), Somatuline® (Ipsen) and Sutent® (Pfizer). While Perspective believes [^{212}Pb]VMT-α-NET has significant advantages compared to conventiona approaches to neuroendocrine tumors, the Company may still face competition from these more established treatments.

Many of our current or potential competitors, either alone or with their collaboration partners, have 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. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient enrollment in clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

We could see a reduction or elimination in our commercial opportunity if our competitors develop and commercialize drugs that are safer, more effective, have fewer or less severe side effects, are more convenient to administer, are less expensive or with a more favorable label than our drug candidates. Our competitors also may obtain FDA or other regulatory approval for their drugs more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. The key competitive factors affecting the success of all of our drug candidates, if approved, are likely to be efficacy, safety, convenience, price, availability of the relevant isotope, the effectiveness of imaging diagnostics, the level of generic competition and the availability of reimbursement from government and other third-party payors.

Grants and Awards

Perspective's next-generation radiopharmaceutical technology has been recognized by many prestigious organizations and has received numerous awards and grants in support of the development of its technology and programs.

Perspective has benefited from Small Business Innovation Research ("SBIR") awards of approximately $17 million through September 2022 from the National Institutes of Health and National Cancer Institute to Michael K. Schultz, PhD, Perspective's co-founder and the Company's Chief Science Officer, Frances L. Johnson, M.D., Perspective's co-founder and the Company's Chief Innovation Officer and to Perspective's principal collaborators at the University of Iowa. The table below summarizes key grant awards that have been peer-reviewed by expert panels at the National Cancer Institute.

Date	Type	Amount ($)	Principal Investigator	Summary Use
Sept. 2022*	SBIR Phase 2	$2,000,000	Schultz	Image-guided dosimetry-based alpha-particle therapy for neuroblastoma
Sept. 2022*	SBIR Phase 2	$2,000,000	Schultz	Combining receptor-targeted alpha-particle therapy and immunotherapy to achieve complete responses in metastatic melanoma
Sept. 2020	SBIR Phase 2	$2,000,000	Schultz	Pharmacology/Toxicology for VMT-α-NET; GMP manufacturing of VMT-α-NET peptide and automation of VMT-a-GEN manufacturing
Sept. 2020	SBIR Phase 2	$2,000,000	Schultz	Pharmacology/Toxicology for VMT01; GMP manufacturing of VMT01 peptide and scaling of automated VMT-a-GEN manufacturing for clinical deployment
Sept. 2019	NCI (SPORE Development)	$50,000**	Schultz	Use of radiosensitizers to enhance radionuclide therapy for NETs
Sept. 2019	SBIR Phase 2	$2,000,000	Schultz & Johnson	Phase 1 dose ranging imaging clinical trial of VMT01 for metastatic melanoma at the Mayo Clinic
July 2019*	NCI	$2,500,000**	Schultz & Menda	Alpha-particle receptor-targeted radionuclide therapy for neuroendocrine tumors
June 2019	SBIR Phase 1	$300,000	Johnson	Receptor-targeted radionuclide therapy combined with immunotherapies to improve metastatic melanoma tumor response
Mar. 2019	NCI	$20,000**	Schultz	Theranostics for Pediatric Cancers: Steps toward clinical translation.
Aug. 2018	NCI (SPORE Developmental)	$25,000**	Schultz	Kidney protection strategies for Peptide-Receptor-Targeted Alpha-Particle Radiotherapy for NETs
Sept. 2017	SBIR Phase 1	$2,000,000	Johnson	Systemic-targeted radionuclide therapy for metastatic melanoma.
Sept. 2017	SBIR Phase 1 ICORPS Award	$50,000	Schultz & Johnson	Intensive NCI-directed commercialization acceleration workshop.
Jan. 2016	SBIR Phase 1	$150,000	Johnson	Receptor-targeted radionuclide therapy for metastatic melanoma.
Dec. 2015	NCI (SPORE Developmental)	$50,000**	Schultz	Image-Guided Peptide-Receptor-Targeted Alpha-Particle Radiotherapy for Children and Adults with Neuroendocrine and other Somatostatin Receptor-Expressing Tumors
Oct. 2015	SBIR Phase 1	$300,000	Johnson	Systemic-targeted radionuclide therapy for metastatic melanoma
Sept. 2015	NCI SPORE	$1,250,000***	Schultz	New Approaches to improving the effectiveness of radionuclide-targeted treatments in Neuroendocrine Tumors
May 2015	SBIR Phase 1	$150,000	Schultz	Systemic Radionuclide Therapy for Metastatic Melanoma (subaward from Radiomedix).

* Ongoing Grant

**Grants awarded to Dr. Schultz's laboratory at the University of Iowa

***The total grant amount was $10,250,000, of which $1,250,000 was granted to Dr. Schultz as Project 3 Leader.

Intellectual Property

Perspective's success depends, in part, on its ability to obtain and maintain intellectual property protection for its platform technology, program candidates and know-how, to defend and enforce its intellectual property rights, in particular, its patent rights, to preserve the confidentiality of its know-how and trade secrets and to operate without infringing the proprietary rights of others. Perspective seeks to protect its program candidates and technologies by, among other methods, filing U.S. and foreign patent applications related to its proprietary technology, inventions and improvements that are important to the development of its business. Perspective also relies on trade secrets, know-how, continuing technological innovation and in-licensing of third-party intellectual property to develop and maintain its proprietary position. Perspective, or its collaborators and licensors, file patent applications directed to its key program candidates in an effort to establish intellectual property positions to protect its program candidates as well as uses of its program candidates for the prevention and/or treatment of diseases.

As of December 31, 2023, Perspective exclusively licenses five issued U.S. patents, 20 pending foreign patent applications and one pending international Patent Cooperation Treaty, or PCT, applications from the University of Iowa and currently has filed two pending provisional U.S. patent applications relating to its continuous new program development.

Perspective in-licensed a patent family with composition of matter and method claims directed to radiopharmaceutical cancer-targeted compositions comprising chelating moieties, linkers and targeting moieties. Patent applications are pending in the United States and various foreign jurisdictions and regions including China, Canada, South Korea, India, Europe and Australia.

From the University of Iowa, Perspective in-licenses patent applications with composition of matter and methods of use claims covering VMT-α-NET and its therapeutic and diagnostic use, along with structural claims for Perspective's PSC with patent applications in the United States and various other foreign jurisdictions and regions including Europe, Australia, Canada, India and China. Patent applications in this family, if issued, are expected to expire in approximately 10 to 17 years, without taking potential patent term extensions into account.

Additionally, from the University of Iowa, Perspective in-licenses one issued U.S. patent (US 11,179,484 B2) and one provisional pending U.S. patent application with composition of matter and methods of use claims covering VMT01 and its therapeutic and diagnostic use for treating melanoma, which are expected to expire in approximately 13 years, without taking potential patent term extensions into account.

The issuance of the VMT01 patent coincided with the completion of a clinical imaging trial which allowed Perspective to evaluate VMT01 against the value of a portfolio of patents in-licensed from the University of New Mexico ("UNM"). Positive results of its clinical trial in comparison to previously published clinical data on the use of the UNM-patented compound allowed Perspective to issue a Notice of Termination for the portfolio in 2022, which represented a significant cost to the company, and the IND for the use of VMT01 for clinical therapy of melanoma patients has received a "safe to proceed" designation (i.e., approval to conduct the trial) from the FDA. The issued U.S. patent with composition-of-matter and methods-of use-claims covering VMT01 and its therapeutic and diagnostic use for melanoma or other MCR1-expressing tumors are expected to expire in approximately 13 years, without taking potential patent term extensions into account.

In December 2023, Perspective entered into a patent license agreement with Mayo Clinic for the rights to the PSMA Alpha-PET DoubLET platform technology for the treatment of PSMA-expressing cancers, with an initial focus on prostate. The PSMA Alpha-PET DoubLET platform technology represents a potential leap forward in the field of prostate cancer diagnostics and treatment. This leading radiopharmaceutical platform provides detailed PET imaging-based diagnosis and dosimetry using long-lived copper-64 (^{64}Cu) for imaging and alpha-particle-targeted radiopharmaceutical therapy ("RPT") using ^{212}Pb. It can also be used for beta-particle-targeted RPT using copper isotopes. Preclinical studies demonstrated a high degree of radiation delivered to tumors while minimizing exposure to critical organs and tissues. The agreement with Mayo Clinic will expire upon the later of the expiration date of the last-to-expire patent rights or the date of discontinuation of sales of the licensed product.

In January 2024, Perspective entered into an exclusive in-licensing of Stony Brook University's Cuburbit[7]uril-admantane ("CB7-Adma") pre-targeting platform which covers the global intellectual property rights. Pre-targeting using the CB7-Adma platform involves two steps. First, an antibody that binds with high specificity to a cancer-specific protein is administered via intravenous injection. This antibody is chemically modified to include the CB7 chemical entity and accumulates over time at the tumor site. Then, a radionuclide held tightly by Perspective's proprietary chelator attached to an Adma group is administered. The Adma group binds to the CB7 group that was previously attached to the cancerous cells with remarkable specificity, delivering radiation dose selectively to the tumor sites. Central to this innovation is CB7-Adma (host-guest) complex formation, driving the interaction between the antibody and radioligand. The chosen host-guest pair, CB7-Adma, demonstrates promising in vivo stability, modularity and low immunogenicity. The platform's potential was validated through in vivo profiling of ligands, employing a CB7-modified CEA targeting antibody. The agreement with Stony Brook University will expire on the later of the expiration date of the last to expire licensed patents or 20 years from the date of the first sale of a product utilizing the intellectual property.

Perspective has an active pipeline development program, resulting in additional intellectual property developments within the company. Perspective submitted two provisional applications in 2022 to support its programs and submitted applications for the next peptide-based radiopharmaceutical (compositions and methods patent applications) in 2023. Perspective anticipates new peptide-based radiopharmaceuticals provisional applications from its discovery laboratory on a rolling basis of approximately 18- to 24-month schedules, depending on the complexity of the target and molecular construct. Perspective intends to supplement this effort with in-licensing supported by an active collaborative grant program with academic centers around the globe. Perspective has added a collaboration with Seoul National University and Technical University Munich to expand the reach of the discovery program. All collaborations include appropriate confidentiality arrangements and material transfer agreements and documentation to protect Perspective's intellectual property assets as well as establish a relationship to enable it to license intellectual property it identifies as valuable to it. These activities leverage a strong collaborative network established by Perspective to drive innovation and generate new intellectual property.

Agreements and Collaborations

Lantheus Agreements

Investment Agreement

On January 8, 2024, Perspective entered into an investment agreement (the "Lantheus Investment Agreement") with Lantheus Alpha Therapy, LLC, a Delaware limited liability company and wholly owned subsidiary of Lantheus Holdings, Inc. ("Lantheus"), pursuant to which Perspective agreed to sell and issue to Lantheus in a private placement transaction (the "Lantheus Private Placement") certain shares (the "Lantheus Shares") of Perspective's Common Stock. The closing of the purchase and sale of the Lantheus Shares to Lantheus by Perspective (the "Lantheus Closing") were subject to Perspective raising at least $50.0 million of gross proceeds (excluding Lantheus' investment) in a qualifying third-party financing transaction, which occurred on January 22, 2024.

The number of Lantheus Shares sold was 56,342,355, representing 19.99% of the outstanding shares of Common Stock as of January 8, 2024. The Lantheus Shares were sold at a price of $0.37 per share, for gross proceeds to Perspective of approximately $20.8 million. Pursuant to the Lantheus Investment Agreement, Perspective agreed to cooperate in good faith to negotiate and enter into a registration rights agreement with Lantheus, obligating Perspective to file a registration statement on Form S-3 with the U.S. Securities and Exchange Commission to register for resale the Lantheus Shares issued at the Lantheus Closing. The Lantheus Investment Agreement also contains agreements of Perspective and Lantheus whereby Lantheus is provided certain board observer and information rights of Perspective, as well as standstill provisions prohibiting Lantheus from taking certain actions for a specified period of time, subject to certain exceptions.

The Lantheus Investment Agreement also provides Lantheus with certain pro rata participation rights to maintain its ownership position in Perspective in the event that Perspective makes any public or non-public offering of any equity or voting interests in Perspective or any securities that are convertible or exchangeable into (or exercisable for) equity or voting interests in Perspective, subject to certain exceptions.

Pursuant to the Lantheus Investment Agreement, Perspective is required to notify Lantheus within 10 business days of the end of a fiscal quarter in which Perspective issued shares of Common Stock pursuant to that certain At Market Issuance Sales Agreement among Perspective, Oppenheimer & Co. Inc., B. Riley Securities, Inc., and JonesTrading Institutional Services LLC dated November 17, 2023 (the “ATM Agreement”), of (i) the number of shares of Common Stock issued during such fiscal quarter pursuant to the ATM Agreement and (ii) the average price per share received by Perspective before commissions (the “ATM Average Price”). Upon receipt of such notice, Lantheus may elect, at its option, to purchase all or a portion of its Pro Rata Portion (as defined in the Lantheus Investment Agreement) of such shares at an aggregate price equal to the number of shares purchased multiplied by the ATM Average Price for such quarter (the “ATM Participation Right”). Pursuant to the Lantheus Investment Agreement, Lantheus may not exercise the ATM Participation Right more than two times per calendar year.

Asset Purchase Agreement

On January 8, 2024, Perspective entered into an Asset Purchase Agreement (the “Progenics APA”) with Progenics Pharmaceuticals, Inc., a Delaware corporation (“Progenics”) and affiliate of Lantheus, pursuant to which Perspective will acquire certain assets and the associated lease of Progenics’ radiopharmaceutical manufacturing facility in Somerset, New Jersey for a purchase price of $8.0 million in cash. The closing of the transactions pursuant to the Progenics APA was subject to customary closing conditions, including regulatory approval. The transactions contemplated by the Progenics' APA closed on March 1, 2024.

Option Agreement

On January 8, 2024, Perspective entered into that certain Option Agreement (the “Option Agreement”) and together with the Lantheus Investment Agreement and the Progenics APA, the “Agreements”) with Lantheus whereby Lantheus was granted an exclusive option to negotiate an exclusive, worldwide, royalty- and milestone-bearing right and license to [^{212}Pb]VMT-α-NET, the Company’s clinical-stage alpha therapy developed for the treatment of neuroendocrine tumors and a right to co-fund the Investigational New Drug ("IND") application, enabling studies for early-stage therapeutic candidates targeting prostate-specific membrane antigen and gastrin-releasing peptide receptor and, prior to IND filing, a right to negotiate for an exclusive license to such candidates. In consideration of the rights granted by the Company to Lantheus pursuant to the Option Agreement, Lantheus will pay to Perspective a one-time payment of $28.0 million, subject to certain withholding provisions related to the closing contemplated by the Progenics APA.

Under the terms of the Option Agreement, Lantheus also has a right of first offer and last look protections for any third-party merger and acquisition transactions involving the Company for a 12-month period beginning on January 8, 2024.

The Agreements contain customary representations, warranties and covenants that were made solely for the benefit of the parties to the Agreements. Such representations, warranties and covenants (i) are intended as a way of allocating risk between the parties to the Agreements and not as statements of fact and (ii) may apply standards of materiality in a way that is different from what may be viewed as material by stockholders of, or other investors in, Perspective. Accordingly, the Agreements are being disclosed only to provide investors with information regarding the terms of the transaction and not to provide investors with any other factual information regarding Perspective. Moreover, information concerning the subject matter of the representations and warranties may change after the date of the Agreements, which subsequent information may or may not be fully reflected in public disclosures.

Equity Financings

March 2024 Private Placement with Institutional Investors

On March 4, 2024, Perspective entered into an investment agreement (the "March 2024 Investment Agreement”) with certain accredited institutional investors (“Institutional Investors”) pursuant to which Perspective agreed to issue and sell, in a private placement (the “March 2024 Private Placement”), 92,009,981 shares (“March 2024 Shares”) of Perspective’s common stock, par value $0.001 per share (the “Common Stock”), for a purchase price of $0.95 per share, representing the closing price of the Common Stock on March 1, 2024. The closing of the March 2024 Private Placement occurred on March 6, 2024 (the "March 2024 Closing").

The gross proceeds to the Company from the March 2024 Private Placement were approximately $87.4 million, before deducting fees payable to the Placement Agents (as defined below) and other estimated transaction expenses. Perspective intends to use the net proceeds from the March 2024 Private Placement for general corporate and working capital purposes, which may include research and development expenditures, preclinical study and clinical trial expenditures, manufacturing expenditures, commercialization expenditures, capital expenditures, acquisitions of new technologies, products or businesses and investments.

The March 2024 Investment Agreement contains customary representations, warranties and agreements by the Company and the Institutional Investors, indemnification obligations of the Company and the Institutional Investors, other obligations of the parties and termination provisions.

The March 2024 Private Placement was conducted pursuant to a Placement Agency Agreement, dated March 4, 2024 (the "Placement Agency Agreement"), by and between Perspective and Oppenheimer & Co. Inc., as representative of the placement agents named therein (the "Placement Agents"). Per the Placement Agency Agreement, Perspective agreed to: (i) pay the Placement Agents a cash fee equal to 5.85% of the gross proceeds received by the Company from the sale of the Shares; and (ii) reimburse the Placement Agents for certain fees and expenses. The Placement Agency Agreement also contains representations, warranties, indemnification and other provisions customary for transactions of this nature.

In connection with the Private Placement, Perspective also entered into a registration rights agreement, dated March 6, 2024 (the "Registration Rights Agreement"), with the Institutional Investors obligating the Company to register the resale of the March 2024 Shares within a specified period of time after the March 2024 Closing.

January 2024 Public Offering

On January 17, 2024, Perspective entered into an underwriting agreement (the "Underwriting Agreement") with Oppenheimer & Co. Inc., as representative of the underwriters named therein (the "Underwriters"), in connection with its previously announced underwritten public offering (the "Public Offering") of 132,075,218 shares (the "Public Shares") of Perspective's Common Stock and, in lieu of Public Shares to certain investors, pre-funded warrants (the "Pre-funded Warrants") to purchase 30,086,944 shares of Common Stock. The price to the public for the Public Shares was $0.37 per Public Share, and the price to the public for the Pre-funded Warrants was $0.369 per Pre-funded Warrant, which represents the per share price for the Public Shares less the $0.001 per share exercise price for each such Pre-funded Warrant. Under the terms of the Underwriting Agreement, Perspective granted the Underwriters an option, exercisable for 30 days, to purchase up to an additional 24,324,324 shares of Common Stock at the same price per share as the Public Shares, which such option was fully exercised by the Underwriters on January 18, 2024. The Public Offering closed on January 22, 2024.

The gross proceeds to Perspective from the Public Offering were approximately $69.0 million, before underwriting discounts and commissions and estimated expenses of the Public Offering.

Perspective intends to use the net proceeds from the Public Offering for general corporate purposes, which may include research and development expenditures, preclinical study and clinical trial expenditures, manufacturing expenditures, commercialization expenditures, working capital, capital expenditures, acquisitions of new technologies, products or businesses and investments.

The Public Offering was made pursuant to Perspective's shelf registration statement on Form S-3 (File No. 333-275638), declared effective by the Securities and Exchange Commission on December 14, 2023, a base prospectus dated December 14, 2023, and the related prospectus supplement dated January 17, 2024.

The Pre-funded Warrants are exercisable at any time after the date of issuance. The exercise price and the number of shares of Common Stock issuable upon exercise of each Pre-funded Warrant (the "Warrant Shares") are subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting the Common Stock as well as upon any distribution of assets, including cash, stock or other property, to Perspective's stockholders. The Pre-funded Warrants will not expire and are exercisable in cash or by means of a cashless exercise. A holder of Pre-funded Warrants may not exercise such Pre-funded Warrants if the aggregate number of shares of Common Stock beneficially owned by such holder, together with its affiliates, would beneficially own more than 4.99% of the issued and outstanding shares of Common Stock following such exercise, as such percentage ownership is determined in accordance with the terms of the Pre-funded Warrants. A holder of Pre-funded Warrants may increase or decrease this percentage not in excess of 19.99% by providing at least 61 days' prior notice to Perspective.

The Underwriting Agreement contains customary representations, warranties and agreements by Perspective, customary conditions to closing, indemnification obligations of Perspective and the Underwriters, including for liabilities under the Securities Act of 1933, as amended, other obligations of the parties and termination provisions. The representations, warranties and covenants contained in the Underwriting Agreement were made only for purposes of such agreement and as of specific dates, were solely for the benefit of the parties to such agreement and may be subject to limitations agreed upon by the contracting parties.

Brachytherapy Divestiture

On December 7, 2023, Isoray entered into an Asset Purchase Agreement (the "GT Medical APA") by and among Isoray, Perspective, and GT Medical Technologies, Inc., a Delaware corporation ("GT Medical"). Perspective entered into the GT Medical APA as sole stockholder of Isoray and as Seller Parent as that term is defined in the GT Medical APA.

Subject to the satisfaction or waiver of the conditions set forth in the GT Medical APA, Isoray will sell to GT Medical, and GT Medical will purchase from Isoray, all of Isoray's right, title and interest in and to substantially all of the assets of Isoray related to Isoray's commercial Cesium-131 business (the "Business") including equipment, certain contracts, inventory and intellectual property (the "GT Medical Asset Purchase"). Subject to limited exceptions set forth in the GT Medical APA, GT Medical is not assuming the liabilities of Isoray.

Pursuant to the terms of, and subject to the conditions specified in, the GT Medical APA, upon consummation of the GT Medical Asset Purchase (the “GT Medical Closing”), (i) GT Medical will issue to Isoray shares of GT Medical’s common stock, par value $0.0001 per share, representing 0.5% of GT Medical’s issued and outstanding capital stock on a fully diluted basis as of the GT Medical Closing (the “GT Medical Stock Consideration”) and (ii) Isoray will have the right to receive, and GT Medical will be obligated to pay, certain cash royalty payments during each of the first four years beginning upon the date of the GT Medical Closing (each such year, a “Measurement Period”), as summarized below:

- with respect to GT Medical’s net sales of Cesium-131 brachytherapy seeds for cases that do not utilize GT Medical’s GammaTile Therapy: (a) if such net sales for a Measurement Period are $10 million or less, 3.0% of such net sales; (b) if such net sales for a Measurement Period are greater than $10 million and less than $15 million, 4.0% of such net sales; and (c) if such net sales for a Measurement Period are $15 million or more, 5.0% of such net sales; and
- with respect to GT Medical’s net sales of GT Medical’s GammaTile Therapy utilizing Cesium-131 brachytherapy seeds: 0.5% of such net sales for a Measurement Period.

The GT Medical Stock Consideration has no registration rights and transfers of the GT Medical Stock Consideration are subject to a right of first refusal on behalf of the other stockholders of GT Medical and GT Medical as further described in the GT Medical Asset Purchase Agreement.

The consummation of the GT Medical APA is subject to the parties mutually obtaining the necessary operating permits and licenses to operate the Business after the GT Medical Closing, at least one Key Employee, as defined in the GT Medical APA, entering into an employment offer letter and not expressing prior to the GT Medical Closing any intention to rescind or repudiate such offer letter or terminate employment with GT Medical or its affiliates following the GT Medical Closing and certain other customary closing conditions to the GT Medical Closing.

Isoray also has agreed that, for the period commencing on the date of the GT Medical Closing and continuing until the third anniversary thereof, neither it nor any of its affiliates will, directly or indirectly, operate, perform or have any ownership interest in any business that designs, develops, manufactures, markets, sells, installs or distributes products that are competitive with the activities of the Cesium-131 business, which is defined as the manufacturing, refinement, commercialization, use, marketing, sale and distribution of Cesium-131 and brachytherapy seeds containing Cesium-131.

The GT Medical APA also includes customary termination provisions, including that, in general, either party may terminate the GT Medical APA if the transaction has not been consummated by March 31, 2024, or if any governmental authority issues any order that restrains, enjoins or otherwise prohibits or prevents the transaction. Likewise, either party may terminate the GT Medical APA if the other party has breached any representation, warranty, covenant, obligation or agreement which would reasonably be expected to cause any of the conditions to closing to not be satisfied prior to the GT Medical Closing, subject, in some cases, to the opportunity of the breaching party to cure such breach.

The respective Board of Directors of Isoray, Perspective and GT Medical have approved the GT Medical APA and the transactions contemplated therein.

The GT Medical Closing is anticipated to be completed in the first half of 2024 and the assets and operations of the Business are presented as a discontinued operation in accordance with Accounting Standards Codification ("ASC") 205-20, *Presentation of Financial Statements – Discontinued Operations*, and prior year amounts have been reclassified in accordance with this accounting pronouncement. As a result of the transaction, the Company has effectively exited the brachytherapy segment and will now focus exclusively on its radiopharmaceutical development segment.

Viewpoint Merger

On February 3, 2023, Perspective completed the merger of Isoray Acquisition Corp., a Delaware corporation and wholly owned subsidiary of Perspective, with Viewpoint Molecular Targeting, Inc. (“Viewpoint”) (such transaction being the “Merger”). Pursuant to the Merger, the Company issued 136,545,075 shares of common stock, representing approximately 49% of its fully diluted outstanding capital stock. Viewpoint is an alpha-particle radiopharmaceutical company in the alpha-emitter market developing oncology therapeutics and complementary imaging agents.

Upon the closing of the Merger, Perspective Therapeutics increased the size of its Board of Directors from four members to five members.Alan Hoffmann and Dr. Philip Vitale resigned from the board and Michael McCormick resigned as Chairman of the Board but remained a director of the Company.Lori Woods was appointed as Chairperson of the Board and Johan (Thijs) Spoor, Robert Froman Williamson, III and Dr. Frank Morich were appointed as directors of the Company.In addition, Ms. Woods resigned as Chief Executive Officer of the Company and Mr. Spoor was appointed as Chief Executive Officer of the Company. On May 9, 2023, Michael McCormick resigned from the board and on June 1, 2023, Heidi Henson was appointed to the board.

For a more detailed summary of the Merger, see our Forms 8-K filed with the Securities and Exchange Commission (“SEC”) on September 28, 2022, and on February 6, 2023, and our Form 8-K/A filed with the SEC on April 21, 2023.

Collaborations

License Agreement with the University of Iowa

On June 5, 2018, Perspective entered into a license agreement, as amended on August 1, 2018, November 1, 2019, January 30, 2020, and June 12, 2020, with the University of Iowa Research Foundation ("UIRF"), for certain patent rights relating to: (i) the composition and use of peptide radiopharmaceutical drugs for the treatment of cancer alone or in combination with approved therapies (collectively, the “Patent Rights”). Perspective holds a worldwide exclusive license, with the right to sublicense, import, make, have made, use, provide, offer to sell and sell all products derived from technology covered by the Patent Rights (the “Licensed Products and/or Process(es)”).

The UIRF License is a royalty-bearing license obligating Perspective to pay a percentage of proceeds received from sales of Licensed Products and/or Licensed Process(es) at a rate that Perspective believes is within market parameters for a newly organized preclinical development stage company. Perspective has also agreed to share a percentage of its proceeds that it derives from other agreements, like sublicense agreements, relating to Licensed Products and/or Licensed Process(es) that Perspective may enter into in amounts that it also believes are within market parameters for a newly organized preclinical development stage company. In addition to its obligation to pay royalties, Perspective has also agreed to pay UIRF a success fee on the execution of a liquidity event (or an initial public offering of its equity) in lieu of milestone payments. Perspective paid the success fee to UIRF in 2023 following the completion of the merger between Perspective and Viewpoint. Perspective is also obligated to pay for past and ongoing intellectual property expenses.

The UIRF License commenced on June 5, 2018 and expires on the date of the last-to-expire Patent Rights, unless terminated earlier under the provisions thereof. Perspective has the right to terminate the UIRF License at any time upon 90 days' written notice to UIRF and the payment of a $10,000 termination fee. Each party has the right to terminate the UIRF License if the other party is in default or breach of any condition of the UIRF License with a right to cure any such breach within 90 days from receipt of notice of such default or breach. Either party can also terminate the UIRF License if the other party voluntarily files for bankruptcy or other similar insolvency proceedings, makes a general assignment for the benefit of creditors, or is the subject of an involuntary bankruptcy petition. If Perspective fails to pay any sum that is due and payable to UIRF within 90 days after receiving written notice of its default from UIRF, then UIRF has the option of terminating the UIRF License. UIRF may also terminate the UIRF License in the event Perspective, or any sublicensee, brings any action against UIRF, unless such suit is for an uncured material breach or imminent threatened breach of the UIRF License Agreement.

Perspective was required to procure liability insurance, naming UIRF as an additional insured, before it initiated any human testing or clinical trials and to maintain such insurance at least 15 years beyond the term of the UIRF License.

The UIRF License also obligates Perspective to meet certain performance and financial milestones.

If Perspective fails to meet these milestones, UIRF will have the right to terminate the UIRF License upon notice as provided in the UIRF License.

License Agreement with Mayo Clinic

In December 2023, Perspective entered into a patent license agreement with Mayo Clinic for the rights to the PSMA Alpha-PET DoubLET platform technology for the treatment of PSMA-expressing cancers, with an initial focus on prostate. The PSMA Alpha-PET DoubLET platform technology represents a potential leap forward in the field of prostate cancer diagnostics and treatment. This leading radiopharmaceutical platform provides detailed PET imaging-based diagnosis and dosimetry using long-lived copper-64 (^{64}Cu) for imaging and alpha-particle-targeted radiopharmaceutical therapy ("RPT") using ^{212}Pb. It can also be used for beta-particle-targeted RPT using copper isotopes. Preclinical studies demonstrated a high degree of radiation delivered to tumors while minimizing exposure to critical organs and tissues. The agreement with Mayo Clinic will expire upon the later of the expiration date of the last-to-expire patent rights or the date of discontinuation of sales of the licensed product.

License Agreement with Stony Brook University

In January 2024, Perspective entered into an exclusive in-licensing of Stony Brook University's Cuburbit[7]uril-admantane ("CB7-Adma") pre-targeting platform which covers the global intellectual property rights. Pre-targeting using the CB7-Adma platform involves two steps. First, an antibody that binds with high specificity to a cancer-specific protein is administered via intravenous injection. This antibody is chemically modified to include the CB7 chemical entity and accumulates over time at the tumor site. Then, a radionuclide held tightly by Perspective's proprietary chelator attached to an Adma group is administered. The Adma group binds to the CB7 group that was previously attached to the cancerous cells with remarkable specificity, delivering radiation dose selectively to the tumor sites. Central to this innovation is CB7-Adma (host-guest) complex formation, driving the interaction between the antibody and radioligand. The chosen host-guest pair, CB7-Adma, demonstrates promising in vivo stability, modularity and low immunogenicity. The platform's potential was validated through in vivo profiling of ligands, employing a CB7-modified CEA targeting antibody. The agreement with Stony Brook University will expire on the later of the expiration date of the last to expire licensed patents or 20 years from the date of the first sale of a product utilizing the intellectual property.

Facilities

Perspective's corporate headquarters are located at 2401 Elliott Avenue, Suite 320, Seattle, WA 98121. In addition, the Company leases laboratory and office space at 2500 Crosspark Road, Coralville, IA 52241 ("BioVentures Center") in the University of Iowa Research Park. In December 2022, Perspective completed the purchase of a 20,000 square-foot building located at 4125 Westcor Court, Coralville, IA, that has office and laboratory space which is currently used only for office space and will be built out to accommodate laboratory and manufacturing facilities.

Perspective's facilities include a radiopharmaceutical manufacturing laboratory (750 square feet) for finished product, clinical use radiopharmaceutical production. The wet labs have appropriate bench, hood and radiochemistry equipment and a separate cell-culture room for all discovery lab pipeline development. The facilities at the BioVentures Center include wifi, internet connections and shared data archive space on the University system as well as data integrity storage and backup provided by the University of Iowa Research Park. In addition, the lease at the BioVentures Center grants 24/7 access for Perspective employees to the University of Iowa core laboratories including the vivarium, small animal imaging facilities, pathology, microscopy, mass spectrometry, nuclear magnetic resonance and other molecular characterization facilities. Perspective also maintains a separate secure network data storage.

In March 2024, Perspective acquired the lease of Lantheus' radiopharmaceutical manufacturing facility located at 110 Clyde Road, Somerset, NJ and Perspective has subsequently agreed to acquire Lantheus' office lease in at 270 Davidson Avenue, Suite 320, Somerset, NJ. The Davidson Avenue office lease was acquired in February 2024, and Perspective closed on the Clyde Road facility in March 2024.

In December 2023, Perspective announced the divestiture of the brachytherapy division which includes the leased production facility located at Applied Process Engineering Laboratory in Richland, WA. Subject to satisfaction of customary closing conditions the facility lease is expected to transfer to GT Medical in the first half of 2024.

Perspective believes that its current facilities and CMO relationships are adequate to meet its existing needs.

Other Agreements

For information related to in-licensing and patent licensing agreements, see the section entitled "Intellectual Property."

Overview of the Discontinued Operations

In 2003, Isoray, our wholly owned subsidiary, obtained clearance from the Food and Drug Administration ("FDA") for the use of Cesium-131 radioisotope in the treatment of all malignant tumors. The FDA's clearance granted in August 2009 permits loading Cesium-131 seeds into bio-absorbable braided sutures or “braided strands,” giving the Company the ability to treat brain, lung, head and neck, colorectal and chest wall cancers. As of the date of this Report, such applications include prostate cancer, brain cancer, colorectal cancer, gynecological cancer, lung cancer, ocular melanoma and pancreatic cancer. The brachytherapy seed form (a sealed source) of Cesium-131 may be used in surface, interstitial and intra-cavity applications for tumors with known radio-sensitivity.

Isoray’s core product is its Cesium-131 sealed source brachytherapy “seed.” These seeds can be inserted individually or in combination into various locations in the body until the physician is satisfied with the radiation dose delivered and are used to treat prostate, brain, lung, head and neck, gynecological and certain other solid tumors.

Financial Information About Segments

The Company has previously presented its results in two segments: Drug Operations and Brachytherapy. Due to the divestiture of all of the brachytherapy segment to GT Medical and the classification of the assets and operations of the brachytherapy segment as discontinued operations in Perspective’s financial statements, Perspective has now determined that it operates in only one segment, as it only reports profit and loss information on an aggregate basis to its chief operating decision maker.

Financial Information About Geographic Areas

All of the Company’s long-lived assets are located in the United States.

Government Regulation

The Company’s present and future intended activities in the development, manufacture and sale of cancer therapy programs are subject to extensive laws, regulations, regulatory approvals and guidelines. In the United States, the Company must comply with laws, such as the U.S. Federal Food, Drug and Cosmetic Act ("FFDCA"), regulations, guidance documents and standards promulgated by the FDA, which govern, among other things, the testing, development, manufacturing, quality control, safety, purity, potency, efficacy, approval, labeling, packaging, storage, record keeping, distribution, marketing, sales, import, export, post-approval monitoring and reporting, advertising and other promotional practices involving pharmaceutical programs. We cannot market a program candidate in the United States until the pharmaceutical program has received FDA approval or licensure.

The FFDCA provides several distinct pathways for the approval of new drugs. A new drug application (“NDA”) under Section 505(b)(1) of the FFDCA is a comprehensive application to support approval of a product candidate that includes, among other things, data and information to demonstrate that the proposed drug is safe and effective for its proposed uses, that production methods are adequate to ensure the identity, strength, quality and purity of the drug, and that proposed labeling is appropriate and contains all necessary information. A 505(b)(1) NDA generally contains results of the full set of pre-clinical studies and clinical trials conducted by or on behalf of the applicant to characterize and evaluate the product candidate. Alternatively, Section 505(b)(2) of the FFDCA permits the filing of an NDA where at least some of the information required for approval comes from studies not conducted by or for the applicant and for which the applicant has not obtained a right of reference. The applicant may rely to some extent upon the FDA’s findings of safety and effectiveness for an approved product that acts as the reference drug and submit its own product-specific data, which may include data from pre-clinical studies or clinical trials conducted by or on behalf of the applicant, to address differences between the product candidate and the reference drug. Drug manufacturers may also submit an abbreviated new drug application ("ANDA") under section 505(j) of the FFDCA to market a generic version of an approved branded drug product if the manufacturer shows the generic version is “therapeutically equivalent” or expected to have the same clinical effect and safety profile as the branded drug product when administered to patients under the conditions specified in the labeling.

The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. In addition, the laws, rules and regulations that apply to our business are subject to change and it is difficult to foresee whether, how or when such changes may affect our business.

Development and Approval

Drug development process. The process to develop and obtain approval for pharmaceutical products for commercialization in the United States and many other countries is lengthy, complex and expensive, and the outcome is far from certain. Although foreign requirements for conducting clinical trials and obtaining approval may differ in certain respects from those in the United States, there are many similarities, and they often are equally rigorous, and the outcome cannot be predicted with confidence.

The process required before a pharmaceutical product may be marketed in the United States generally include the following:

- Completion of extensive non-clinical laboratory tests and animal studies in accordance with the FDA's Good Laboratory Practices ("GLP") regulations, applicable requirements for the humane use of laboratory animals, such as the Animal Welfare Act or other applicable regulations;
- Filing an Investigational New Drug ("IND") with the FDA for human clinical testing, which must become effective before human clinical trials may begin;
- Approval by an independent institutional review board ("IRB") or ethics committee overseeing each clinical site before each trial may be initiated at that site;
- Designing and conducting adequate and well-controlled human clinical trials in accordance with Good Clinical Practices ("GCP") requirements, and any additional requirements for the protection of human research subjects and their health information, to establish the safety and efficacy of the drug for each proposed indication;
- Submission to the FDA of an application for marketing approval that includes substantial evidence of safety and effectiveness from results of clinical trials, as well as the results of preclinical testing, detailed information about the chemistry, manufacturing and controls, and proposed labeling and packaging for the product candidate;
- Consideration by an FDA Advisory Committee, if applicable;
- Satisfactory completion of potential FDA audits of the preclinical study and clinical trial sites that generated the data in support of the marketing application;
- Determination by the FDA within 60 days of its receipt of a marketing application to accept and file the application for review;
- Satisfactory completion of an FDA pre-approval inspection of the nonclinical, clinical and/or manufacturing sites or facilities at which the active pharmaceutical ingredient, and finished drug product are produced and tested to assess compliance with current Good Manufacturing Practices ("cGMP");
- Payment of applicable user fees;
- FDA review and approval of the marketing application, including prescribing information, labeling and packaging of the drug program, agreement on post-marketing commitments, if applicable, prior to any commercial marketing or sale of the drug in the United States; and
- Implementation of a Risk Evaluation & Mitigation Strategies ("REMS") program, if applicable, and conduct of any required Phase 4 studies, and compliance with post-approval requirements, including ongoing monitoring and reporting of adverse events related to the product.

Prior to initiating human testing of any pharmaceutical product, the product undergoes preclinical testing. Nonclinical tests include laboratory evaluations of product chemistry, pharmacology, toxicity and formulation, as well as animal studies to assess the potential safety and activity of the product candidate. Adherence to federal regulations, such as GLPs and the Animal Welfare Act enforced by the Department of Agriculture, is required during the conduct of these tests.

The sponsor of a clinical study is required to submit the results of nonclinical tests, along with manufacturing details, analytical data, any available clinical data or literature, and a proposed clinical protocol, to the FDA as part of an IND application before clinical testing may begin. Some nonclinical testing typically continues even after IND submission. An IND provides an exemption from the FFDCA, allowing the shipment of an unapproved product for investigational use in clinical trials, subject to FDA authorization. The IND becomes effective 30 days after FDA receipt, unless concerns are raised by the FDA about the proposed clinical trial, including whether subjects will be exposed to unreasonable risks, within that period, in which case outstanding issues must be resolved before the clinical trial can proceed.

Clinical trials may involve the administration of the program candidate to healthy volunteers or subjects under the supervision of qualified investigators, generally physicians not employed by or under the study sponsor's control. Clinical trials involving some products for certain diseases may begin with testing in patients with the disease. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria and the parameters to be used to monitor subject safety, including stopping rules that assure a clinical trial will be stopped if certain adverse events should occur. Each protocol and any amendments to the protocol must be submitted to the FDA as part of the IND. Clinical trials must be conducted and monitored in accordance with the FDA's regulations comprising the GCP requirements, including the requirement that all research subjects or his or her legal representative provide informed consent. Further, each clinical trial must be reviewed and approved by an independent IRB at, or servicing, each institution at which the clinical trial will be conducted. IRBs are charged with protecting the welfare and rights of study participants and consider such items as whether the risks to individuals participating in clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the form and content of the informed consent that must be signed by each clinical trial subject or his or her legal representative and must monitor the clinical trial until completed. Additionally, some trials are overseen by an independent group of qualified experts organized by the trial sponsor, known as a data safety monitoring board or committee.

A sponsor who wishes to conduct a clinical trial outside the United States may, but need not, obtain FDA authorization to conduct the clinical trial under an IND. Foreign study conducted under an IND must meet the same requirements that apply to studies being conducted in the United States. If a foreign clinical trial is not conducted under an IND, the sponsor may submit data from the clinical trial to the FDA in support of an application if the clinical trial is conducted in compliance with GCP, including review and approval by an independent ethics committee and compliance with informed consent principles, and FDA is able to validate the data from the study through an onsite inspection if deemed necessary.

Clinical trials are typically conducted in sequential phases, although they may overlap or be combined. The four phases are as follows:

- Phase 1. Phase 1 includes the initial introduction of an investigational product candidate into humans. Phase 1 trials generally are conducted in healthy volunteers but in some cases are conducted in patients with the target disease or condition. These trials are designed to evaluate the safety, metabolism, pharmacokinetic properties and pharmacologic actions of the investigational product candidate in humans, the side effects associated with increasing doses, and if possible, to gain early evidence on effectiveness. During Phase 1 trials, sufficient information about the investigational product candidate's pharmacokinetic properties and pharmacological effects may be obtained to permit the design of Phase 2 trials. The total number of participants included in Phase 1 trials varies but is generally in the range of 20 to 80.

- Phase 2. Phase 2 includes the controlled clinical trials conducted in patients with the target disease or condition, to determine dosage tolerance and optimal dosage, to identify possible adverse side effects and safety risks associated with the product candidate, and to obtain initial evidence of the effectiveness of the investigational product candidate for a particular indication. Phase 2 trials are typically well controlled, closely monitored, and conducted in a limited subject population, usually involving no more than several hundred participants.
- Phase 3. Phase 3 trials are controlled clinical trials conducted in an expanded subject population at geographically dispersed clinical trial sites. They are performed after preliminary evidence suggesting effectiveness of the investigational product candidate has been obtained and are intended to further evaluate dosage, clinical effectiveness and safety, to establish the overall benefit-risk relationship of the product candidate, and to provide an adequate basis for drug approval. Phase 3 trials usually involve several hundred to several thousand participants. In most cases, the FDA requires two adequate and well-controlled Phase 3 trials to demonstrate the efficacy and safety of the drug; however, the FDA may find a single Phase 2 or Phase 3 trial with other confirmatory evidence to be sufficient in rare instances, particularly in an area of significant unmet medical need and if the trial design provides a well-controlled and reliable assessment of clinical benefit.
- Phase 4. Post-approval studies, sometimes referred to as Phase 4 clinical trials, may be conducted after initial marketing approval. These studies may be required by the FDA as a condition of approval or licensure and are used to gain additional experience from the treatment of patients in the intended therapeutic indication. The FDA has express statutory authority to require post-market clinical studies to address safety issues.

During all phases of clinical development, regulatory agencies require extensive monitoring and auditing of all clinical activities, clinical data and clinical trial investigators. Annual progress reports detailing the results of the clinical trials must be submitted to the FDA. Written IND safety reports must be promptly submitted to the FDA and the investigators for serious and unexpected adverse events, any findings from other studies, tests in laboratory animals or in vitro testing and other sources that suggest a significant risk for human subjects, or any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. The sponsor must submit an IND safety report within 15 calendar days after the sponsor determines that the information qualifies for reporting. The sponsor also must notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction within seven calendar days after the sponsor's initial receipt of the information.

Clinical trials may not be completed successfully within a specified period of time, if at all. The decision to terminate development of an investigational product may be made by a health authority (such as the FDA), an IRB/ethics committee, or by a company for various reasons. At any time before or during clinical trials, the FDA may order the temporary or permanent discontinuation of a clinical trial, which is referred to as a clinical hold, or impose other sanctions, if the agency believes the clinical trial is not being conducted in accordance with FDA requirements or presents an unacceptable risk to the clinical trial patients. If the FDA imposes a clinical hold, trials may not recommence without FDA authorization and then only under terms authorized by the FDA. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the investigational product has been associated with unexpected serious harm to patients.

There are requirements for the registration of ongoing clinical trials of program candidates on public registries and the disclosure of certain clinical trial results and other trial information after completion within timeframes to the NIH for public dissemination on its clinicaltrials.gov website. In addition, sponsors or distributors of investigational products for the diagnosis, monitoring or treatment of one or more serious diseases or conditions must have a publicly available policy on evaluating and responding to requests for expanded access requests.

Assuming successful completion of all required testing in accordance with all applicable regulatory requirements, detailed investigational product candidate information is submitted to the FDA in the form of a marketing application to request market approval for the product in specified indications.

Marketing Application. After completing the clinical studies, a sponsor seeking approval to market a product candidate in the United States submits to the FDA a new drug application ("NDA"). The NDA is a comprehensive application intended to demonstrate the product candidate's safety and effectiveness and includes, among other things, pre-clinical and clinical data, information about the product candidate's composition, the sponsor's plans for manufacturing and packaging and proposed labeling. When an application is submitted, the FDA makes an initial determination as to whether the application is sufficiently complete to be accepted for review. If the application is not, the FDA may refuse to accept the application for filing and request additional information. A refusal to file, which requires resubmission of the application with the requested additional information, delays review of the application.

The FDA reviews the application to determine, among other things, whether the proposed product is safe and effective for its intended use, and whether the product is being manufactured in accordance with cGMP. Before approving an application, the FDA often will inspect the facilities at which the product is manufactured for cGMP compliance and may inspect one or more clinical sites to assure compliance with GCP. FDA Advisory Committee meetings are often held for New Chemical Entities, novel indications, or for applications that otherwise present scientific, technical or policy questions on which the agency believes it would benefit from the perspectives of outside experts. An advisory committee meeting includes a panel of independent experts, including clinicians and other scientific experts, who review, evaluate and make a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

After review of an NDA, the FDA may grant marketing approval, request additional information, or issue a complete response letter ("CRL") communicating the reasons for the agency's decision not to approve the application. The CRL may request additional information, including additional preclinical or clinical data, for the FDA to reconsider the application. An application may be resubmitted with the deficiencies addressed, but resubmission does not guarantee approval. Data from clinical trials are not always conclusive, and the FDA's interpretation of data may differ from the sponsor's. Obtaining approval can take years, requires substantial resources and depends on a number of factors, including the severity of the targeted disease or condition, the availability of alternative treatments, and the risks and benefits demonstrated in clinical trials. Additionally, as a condition of approval, the FDA may impose restrictions that could affect the commercial prospects of a product and increase costs, such as a REMS, and/or post-approval commitments to conduct additional clinical trials or non-clinical studies or to conduct surveillance programs to monitor the product's effects. Under the Pediatric Research Equity Act ("PREA"), certain applications for approval must also include an assessment, generally based on clinical study data, of the safety and effectiveness of the subject product in relevant pediatric populations, unless a waiver or deferral is granted.

Expedited Programs. The FDA maintains certain expedited programs to facilitate the development and review processes for certain qualifying pharmaceutical program candidates, including Fast Track designation, breakthrough therapy designation, priority review and accelerated approval. A pharmaceutical product candidate may be granted Fast Track designation if it is intended for the treatment of a serious or life-threatening condition and demonstrates the potential to address unmet medical needs for such condition. With Fast Track designation, the sponsor may be eligible for more frequent opportunities to obtain the FDA's feedback, and the FDA may initiate review of sections of an application before the application is complete. This rolling review is available if the applicant provides, and the FDA approves, a schedule for the remaining information. Even if a product receives Fast Track designation, the designation can be rescinded and provides no assurance that a product will be reviewed or approved more expeditiously than would otherwise have been the case, or that the product will be approved at all.

The FDA may designate a product candidate as a breakthrough therapy if it finds that the product candidate is intended, alone or in combination with one or more other program candidates or approved products, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the product candidate may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints. For program candidates with Breakthrough Therapy Designation, more frequent interaction and communication between the FDA and the sponsor can help to identify the most efficient path for clinical development. Program candidates designated as breakthrough therapies by the FDA may also be eligible for priority review. Even if a product receives Breakthrough Therapy Designation, the designation can be rescinded if the FDA determines the program no longer meets the qualifying criteria for breakthrough therapy and provides no assurance that a product will be reviewed or approved more expeditiously than would otherwise have been the case, or that the product will be approved at all.

Accelerated approval under FDA regulations allows a product designed to treat a serious or life-threatening disease or condition that provides a meaningful therapeutic advantage over available therapies to be approved on the basis of either an intermediate clinical endpoint or a surrogate endpoint that is reasonably likely to predict clinical benefit. As a condition of accelerated approval, the FDA will require that a sponsor of a drug product subject to accelerated approval perform an adequate and well-controlled post-marketing clinical trial to confirm clinical benefit. If a sponsor fails to conduct any required post-approval trial with due diligence, the FDA may withdraw the drug from the market. In addition, the FDA currently requires as a condition for accelerated approval that promotional materials be submitted in advance of initial dissemination, which could adversely impact the timing of the commercial launch of the product.

The FDA may also grant priority review designation to a product candidate, which sets the target date for FDA action on the application at six months from FDA filing, or eight months from the sponsor's submission. Priority review may be granted where a product is intended to treat a serious or life-threatening disease or condition and, if approved, has the potential to provide a safe and effective therapy where no satisfactory alternative therapy exists or a significant improvement in safety or efficacy compared to available therapy. If criteria are not met for priority review, the standard FDA review period is 10 months from FDA filing or 12 months from sponsor submission. Priority review designation does not change the scientific/medical standard for approval or the quality of evidence necessary to support approval. Priority review may be available also for sponsors with a priority review voucher ("PRV"). FDA awards PRVs to drug sponsors that develop drugs for tropical diseases or rare pediatric diseases or to use as medical countermeasures. The PRV is transferable and may be sold to another drug sponsor.

Orphan Drug Designation. Under the Orphan Drug Act, the FDA may grant orphan designation to a drug product intended to treat a "rare disease or condition," which is generally a disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the United States, but for which there is no reasonable expectation that the cost of developing and making a drug product available in the United States for this type of disease or condition will be recovered from sales of the product. If orphan product designation is sought, it must be requested before submitting an NDA for the drug product for the proposed rare disease or condition. If the FDA grants orphan drug designation, the common name of the therapeutic agent and its designated orphan use are disclosed publicly by the FDA. Orphan product designation does not, by itself, convey any advantage in or shorten the duration of the regulatory review and approval process.

If a product that has orphan designation subsequently receives the first FDA approval for the disease or condition for which it has such designation, the product is entitled to orphan product exclusivity, which the FDA has interpreted to preclude approving for seven years any other sponsor's application to market the same drug for the same use for which the drug has been granted orphan drug designation, except in limited circumstances, such as a showing of clinical superiority to the product with orphan exclusivity. Orphan drug exclusivity does not prevent the FDA from approving a different drug for the same disease or condition, or the same drug for a different disease or condition. Among the other benefits of orphan drug designation are tax credits for certain research and a waiver of the NDA application user fee.

As in the United States, designation as an orphan drug for the treatment of a specific indication in the European Union, must be made before the application for marketing authorization is made. Orphan drugs in Europe enjoy economic and marketing benefits, including up to 10 years of market exclusivity for the approved indication unless another applicant can show that its product is safer, more effective or otherwise clinically superior to the orphan designated product.

Exclusivity and Patent Restoration. In the United States and elsewhere, certain regulatory exclusivities and patent rights can provide an approved drug product with protection from certain competitors' products for a period of time and within a certain scope. In the United States, those protections include regulatory exclusivity under the Hatch-Waxman Act, which provides periods of exclusivity for a branded drug product that would serve as a reference listed drug for a generic drug applicant filing and an ANDA under section 505(j) of the FFDCA or as a listed drug for an applicant filing an NDA under section 505(b)(2) of the FFDCA. If such a product is a "new chemical entity" ("NCE") generally meaning that the active moiety has never before been approved in any drug, there is a period of five years from the product's approval during which the FDA may not accept for filing any ANDA or 505(b)(2) application for a drug with the same active moiety. (An application that contains a challenge to a patent associated with the reference product may be submitted at four years after reference product approval.) Certain changes to an approved drug, such as the approval of a new indication, may qualify for a three-year period of exclusivity during which the FDA cannot approve an ANDA or 505(b)(2) NDA for a similar drug that includes the change.

In addition, the Hatch-Waxman Act also provides for the restoration of a portion of the patent term lost during product development and FDA review of a marketing application if approval of the application is the first permitted commercial marketing of a drug containing the active ingredient. The patent term restoration period is generally one-half the time between the effective date of the IND or the date of patent grant (whichever is later) and the date of submission of the application, plus the time between the date of submission of the application and the date of FDA approval of the product. The maximum period of restoration is five years, and the patent cannot be extended to more than 14 years from the date of FDA approval of the product. Only one patent claiming each approved product is eligible for restoration and the patent holder must apply for restoration within 60 days of approval. The United States Patent and Trademark Office, in consultation with the FDA, reviews and approves the application for patent term restoration.

Post-Approval Regulation

Quality Assurance and Current Good Manufacturing Practice Requirements. The FDA enforces regulations to ensure that the methods used in, and the facilities and controls used for, the manufacture, processing, packaging and holding of pharmaceutical products conform to cGMP. The cGMP regulations that the FDA enforces are comprehensive and cover all aspects of manufacturing operations, from receipt of raw materials to finished product distribution, and are designed to ensure that the finished products meet all the required identity, strength, quality and purity characteristics. Compliance with cGMP includes adhering to requirements relating to organization and training of personnel, buildings and facilities, equipment, control of components and drug product containers and closures, production and process controls, quality control and quality assurance, packaging and labeling controls, holding and distribution, laboratory controls, and records and reports. Additionally, manufacturers of positron emission tomography ("PET") products are subject to a different set of cGMP requirements than other drug products. Third-party manufacturers of products are required also to comply with applicable requirements in the cGMP regulations, including quality control and quality assurance and maintenance of records and documentation. Failure of the Company's third-party suppliers, to comply with applicable cGMP requirements or the conditions of the product's approval may lead the FDA to take enforcement actions, such as issuing a warning letter, or to seek sanctions, including fines, civil penalties, injunctions, suspension of manufacturing operations, imposition of operating restrictions, withdrawal of FDA approval, seizure or recall of products, and criminal prosecution. Other regulatory authorities have their own cGMP rules. Ensuring compliance requires a continuous commitment of time, money and effort in all operational areas.

Sales and Marketing. Once a marketing application is approved, the Company's advertising, promotion and marketing of the product will be subject to close regulation, including promotion to healthcare practitioners, direct-to-consumer advertising, communications regarding unapproved uses (or "off-label uses"), industry-sponsored scientific and educational activities and promotional activities involving the internet. In addition to FDA restrictions on marketing of pharmaceutical products, state and federal fraud and abuse laws have been applied to restrict certain marketing practices in the pharmaceutical industry. Failure to comply with applicable requirements in this area may subject a company to adverse publicity, investigations and enforcement action by the FDA, the Department of Justice, the Office of the Inspector General of the Department of Health and Human Services, and/or state authorities. FDA sanctions could include refusal to approve pending applications, withdrawal of an approval or license revocation, clinical hold, warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, mandated corrective advertising or communications with doctors, debarment, restitution, disgorgement of profits or civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on the Company's ability to develop, promote, or distribute pharmaceutical products.

New Legislation. New legislation is passed periodically in Congress, or at the state level, that could significantly change the statutory provisions governing the approval, manufacturing and marketing of products regulated by the FDA. Further, FDA revises its regulations and guidance in light of new legislation in ways that may affect our business or products. It is impossible to predict whether other changes to legislation, regulation, or guidance will be enacted, or what the impact of such changes, if any, may be.

Other Requirements. Companies that manufacture or distribute drug products pursuant to approved NDAs must meet numerous other regulatory requirements, including adverse event reporting, submission of periodic reports, and record-keeping obligations.

Other requirements for radioactive substances. In the United States, as a manufacturer of pharmaceuticals utilizing radioactive byproduct material, we are subject to extensive regulation by not only federal governmental authorities, such as the FDA and the Federal Aviation Administration ("FAA"), but also by state and local governmental authorities to ensure such devices are safe and effective. The Nuclear Regulatory Commission ("NRC") regulates the possession, use and disposal of radioactive byproduct material as well as the manufacture of radioactive sealed sources to ensure compliance with state and federal laws and regulations. Our targeted alpha therapies are subject to these regulations.

Moreover, our use, management and disposal of certain radioactive hazardous substances and wastes are subject to regulation by several federal and state agencies depending on the nature of the substance or waste material. We believe that we are in compliance with all federal and state laws for this purpose.

In the European Union ("EU"), laws and regulations at EU level and in the EU Member States govern or influence the research, testing, manufacture, safety, labeling, storage, record keeping, approval, distribution, use, reporting, advertising and promotion of radiopharmaceutical products. Furthermore, in the EU, a legal framework is in place to ensure the safety of patients and medical staff working with radiopharmaceutical products. This framework consists of several directives, such as Directive 2013/59/Euratom on basic safety standards, which provides requirements related to radiation protection in medicine, particularly regarding the recording of radiation doses, the role of medical physicist and risk assessments, and Directive 2011/70/Euratom on the responsible and safe management of spent fuel and radioactive waste.

Compliance with applicable environmental laws and regulations is expensive, and current or future environmental regulations may impair our research, development and production efforts, which could harm our business, prospects, financial condition or results of operations.

Coverage and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any program candidates for which we may obtain regulatory approval. The regulations that govern marketing approvals, pricing and reimbursement for new drug products vary widely from country to country. Current and future legislation may significantly change the approval requirements in ways that could involve additional costs and cause delays in obtaining approvals. Some countries require approval of the sale price of a drug before it can be marketed. In many countries, the pricing review period begins after marketing or product licensing approval is granted. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we might obtain marketing approval for a product in a particular country, but then be subject to price regulations that delay our commercial launch of the product, possibly for lengthy time periods, which could negatively impact the revenues we are able to generate from the sale of the product in that particular country. Adverse pricing limitations may hinder our ability to recoup our investment in one or more program candidates even if our program candidates obtain marketing approval.

Our ability to commercialize any products successfully also will depend in part on the extent to which coverage and adequate reimbursement for these products and related treatments will be available in a timely manner from third-party payors, including government healthcare programs such as Medicare and Medicaid, commercial health insurers and managed care organizations. Government authorities and other third-party payors, such as private health insurers and health maintenance organizations, determine which medications they will cover and establish reimbursement levels. Third-party payors may limit coverage to specific products on an approved list, or formulary, which may not include all of the FDA-approved products for a particular indication. The process for determining whether a payor will provide coverage for a product may be separate from the process for setting the price or reimbursement rate that the payor will pay for the product once coverage is approved.

A primary trend in the United States healthcare industry and elsewhere is cost containment. Government healthcare programs and other third-party payors are increasingly challenging the prices charged for medical products and services and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy, and have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. We cannot be sure that coverage and reimbursement will be available promptly or at all for any product that we commercialize and, if reimbursement is available, what the level of reimbursement will be. Moreover, eligibility for coverage and reimbursement does not imply that any drug will be paid for in all cases. Limited coverage may impact the demand for, or the price of, any product candidate for which we obtain marketing approval. If coverage and reimbursement are not available or reimbursement is available only to limited levels, we may not successfully commercialize any product candidate for which we obtain marketing approval.

Obtaining coverage and adequate reimbursement is a time-consuming and costly process. There may be significant delays in obtaining coverage and reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the FDA or comparable foreign regulatory authorities. Moreover, eligibility for coverage and reimbursement does not imply that a drug will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution. Interim reimbursement levels for new drugs, if applicable, may also not be sufficient to cover our costs and may only be temporary. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Limited coverage may impact the demand for, or the price of, any product candidate for which we obtain marketing approval. Third-party payors also may seek additional clinical evidence, including expensive pharmacoeconomic studies, beyond the data required to obtain marketing approval, demonstrating clinical benefits and value in specific patient populations, before covering our products for those patients. If reimbursement is available only for limited indications, we may not be able to successfully commercialize any product candidate for which we obtain marketing approval. Our inability to promptly obtain coverage and profitable reimbursement rates from both government-funded and private payors for any approved products that we develop could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize products and our overall financial condition.

Pharmaceutical Pricing

If we successfully commercialize any of our drugs, we may participate in the Medicaid Drug Rebate Program. Participation is required for federal funds to be available for covered outpatient drugs under Medicaid and Medicare Part B. Under the Medicaid Drug Rebate Program, we would be required to pay a mandatory rebate to each state Medicaid program for our covered outpatient drugs that are dispensed to Medicaid beneficiaries and paid for by a state Medicaid program as a condition of having federal funds being made available to the states for our drugs under Medicaid. Those rebates are based on pricing data reported by the manufacturer on a monthly and quarterly basis to the Centers for Medicare & Medicaid Services (“CMS"), the agency that administers the Medicare and Medicaid programs. Rebates owed by manufacturers under the Medicaid Drug Rebate program are no longer subject to a cap, which could adversely affect our future rebate liability.

Federal law requires that any company that participates in the Medicaid Drug Rebate Program also participate in the Public Health Service’s 340B drug pricing program in order for federal funds to be available for the manufacturer’s drugs under Medicaid and Medicare Part B. The 340B program requires participating manufacturers to agree to charge statutorily defined covered entities no more than the 340B “ceiling price” for the manufacturer’s covered outpatient drugs. These 340B covered entities include community health centers and other entities that receive certain federal grants, as well as certain hospitals that serve a disproportionate share of low-income patients.

Manufacturers are obligated to pay refunds to Medicare for single source drugs reimbursed under Medicare Part B and packaged in single-dose containers or single-use packages, for units of discarded drugs reimbursed by Medicare Part B in excess of 10 percent of total allowed charges under Medicare Part B for that drug. Manufacturers that fail to pay refunds could be subject to civil monetary penalties of 125 percent of the refund amount.

Further, the Inflation Reduction Act of 2022 (“IRA”) establishes a Medicare Part B inflation rebate scheme under which, generally speaking, manufacturers will owe rebates if the price of a Part B drug increases faster than the pace of inflation. The IRA also created a drug price negotiation program that will determine the prices for Medicare units of certain high Medicare spend drugs and biologics without generic or biosimilar competition. Manufacturers may be subject to civil monetary penalties for certain violations of the negotiation and inflation rebate provisions and an excise tax during any noncompliance period under the negotiation program.

Additionally, individual states have passed legislation and implemented regulations designed to control pharmaceutical pricing, including sometimes establishing Prescription Drug Affordability Boards (or similar entities) to review high-cost drugs and, in some cases, set upper payment limits and implementing marketing cost disclosure and transparency measures.

Medicare is a federal program that is administered by the federal government that covers individuals age 65 and over or that are disabled as well as those with certain health conditions. Medicare Part B generally covers drugs that must be administered by physicians or other healthcare practitioners, among others. Medicare Part B generally pays for such drugs under a payment methodology based on the average sales price of the drugs. Manufacturers are required to report average sales price information to CMS on a quarterly basis. The manufacturer-submitted information may be used by CMS to calculate Medicare payment rates. Manufacturers are obligated to pay refunds to Medicare for single source drugs reimbursed under Medicare Part B and packaged in single-dose containers or single-use packages, for units of discarded drugs reimbursed by Medicare Part B in excess of 10 percent of total allowed charges under Medicare Part B for that drug. Manufacturers that fail to pay refunds could be subject to civil monetary penalties of 125 percent of the refund amount. Further, the Inflation Reduction Act of 2022 ("IRA") establishes a Medicare Part B inflation rebate scheme, under which, generally speaking, manufacturers will owe rebates if the average sales price of a Part B drug increases faster than the pace of inflation. Failure to timely pay a Part B inflation rebate is subject to a civil monetary penalty.

Medicare Part D generally provides coverage to enrolled Medicare patients for self-administered drugs (i.e., drugs that are not administered by a physician). Medicare Part D is administered by private prescription drug plans approved by the U.S. government and, subject to detailed program rules and government oversight, each drug plan establishes its own Medicare Part D formulary for prescription drug coverage and pricing, which the drug plan may modify from time to time. The prescription drug plans negotiate pricing with manufacturers and pharmacies and may condition formulary placement on the availability of manufacturer discounts. In addition, under the coverage gap discount program, manufacturers are required to provide a 70% discount on brand name prescription drugs utilized by Medicare Part D beneficiaries when those beneficiaries are in the coverage gap phase of the Part D benefit design. Civil monetary penalties could be due if a manufacturer were to fail to offer discounts under the coverage gap discount program. The IRA sunsets the coverage gap discount program starting in 2025 and replaces it with a new manufacturer discount program. Failure to pay a discount under this new program will be subject to a civil monetary penalty. In addition, the IRA established a Medicare Part D inflation rebate scheme, under which, generally speaking, manufacturers will owe additional rebates if the average manufacturer price of a Part D drug increases faster than the pace of inflation. Failure to timely pay a Part D inflation rebate is subject to a civil monetary penalty.

The IRA also creates a drug price negotiation program under which the prices for Medicare units of certain high Medicare spend drugs and biologicals without generic or biosimilar competition will be capped by reference to, among other things, a specified non-federal average manufacturer price starting in 2026. Failure to comply with requirements under the drug price negotiation program is subject to an excise tax and/or a civil monetary penalty. This or any other legislative change could impact the market conditions for our program candidates.

In addition, in order to be eligible to have its products paid for with federal funds under the Medicaid and Medicare Part B programs and purchased by the Department of Veterans Affairs (the "VA"), Department of Defense ("DoD"), Public Health Service, and Coast Guard (the "Big Four" agencies) and certain federal grantees, a manufacturer also must participate in the VA Federal Supply Schedule ("FSS") pricing program, established by Section 603 of the Veterans Health Care Act of 1992 (the "VHCA"). Under this program, the manufacturer is obligated to make its covered drugs (innovator multiple source drugs, single source drugs, and biologics) available for procurement on an FSS contract and charge a price to the Big Four agencies that is no higher than the Federal Ceiling Price ("FCP"), which is a price calculated pursuant to a statutory formula. The FCP is derived from a calculated price point called the “non-federal average manufacturer price” ("Non-FAMP"), which we will be required to calculate and report to the VA on a quarterly and annual basis. Moreover, pursuant to Defense Health Agency ("DHA") regulations, manufacturers must provide rebates on utilization of their innovator and single source products that are dispensed to TRICARE beneficiaries by TRICARE network retail pharmacies. The formula for determining the rebate is established in the regulations and is based on the difference between the annual non-federal average manufacturer price and the Federal Ceiling Price, each required to be calculated by us under the VHCA. These programs obligate the manufacturer to pay rebates and offer its drugs at certain prices to certain federal purchasers.

A manufacturer that fails to comply with the requirements of the Tricare Retail Pharmacy Rebate Program may have its products excluded from Tricare retail pharmacies and/or the Tricare pharmacy benefits program; may be subject to interest, penalties and administrative fees; and, depending on the actions of the manufacturer, may be subject to allegations under the False Claims Act and other laws and regulations.

Pursuant to applicable law, knowing provision of false information in connection with a Non-FAMP filing can subject a manufacturer to significant penalties for each item of false information. The FSS contract also contains extensive disclosure and certification requirements. If we overcharge the government in connection with the FSS contract, whether due to a misstated FCP or otherwise, we will be required to refund the difference to the government. Failure to make necessary disclosures and/or to identify contract overcharges can result in allegations against us under the False Claims Act and other laws and regulations. Unexpected refunds to the government, and any response to government investigation or enforcement action, would be expensive and time consuming, and could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

To the extent we choose to participate in these government healthcare programs, these and other requirements may affect our ability to profitably sell any product candidate for which we obtain marketing approval. The requirements under the Medicaid Drug Rebate Program, 340B program, FSS and TRICARE programs could reduce the revenue we may generate from any program candidates that are commercialized in the future and could adversely affect our business and operating results.

Our relationship with customers and third-party payors is subject to applicable anti-kickback, fraud and abuse, and other healthcare laws and regulations. These laws are described in greater detail in the risk factor titled, “*If we fail to comply with applicable healthcare regulations, we could face substantial penalties and our business, operations and financial condition could be adversely affected*.” These laws include, but are not limited to:

- the federal civil False Claims Act, which imposes penalties, including through civil whistleblower or qui tam actions, against individuals or entities for, among other things, knowingly presenting, or causing to be presented, a false or fraudulent claim for payment of government funds; knowingly making, using or causing to be made or used, a false record or statement material to a false or fraudulent claim; or knowingly concealing or knowingly and improperly avoiding, decreasing or concealing an obligation to pay money to the federal government;
- the federal Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), which created new federal criminal statutes that prohibits, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payors, or knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statements or representations in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters;
- the federal Health Information Technology for Economic and Clinical Health Act of 2009 and its implementing regulations, which impose requirements on entities covered by HIPAA, including healthcare providers, health plans and healthcare clearinghouses as well as their respective business associates that perform services for them that involve individually identifiable health information, relating to the privacy, security and transmission of individually identifiable health information without appropriate authorization, including mandatory contractual terms as well as directly applicable privacy and security standards and requirements;
- the federal Physician Payment Sunshine Act, created under the Patient Protection and Affordable Care Act ("ACA"), and its implementing regulations, which require manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children’s Health Insurance Program (with certain exceptions) to report annually to the United States Department of Health and Human Services information related to payments or other transfers of value made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), certain other advanced practitioners and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members;
- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers;
- the Foreign Corrupt Practices Act, a U.S. law that regulates certain financial relationships with foreign government officials (which could include, for example, certain medical professionals); and
- state law equivalents of the federal laws, such as anti-kickback, false claims, consumer protection and unfair competition laws which may apply to our business practices, including but not limited to, research, distribution, sales and marketing arrangements as well as submitting claims involving healthcare items or services reimbursed by any third-party payors, including commercial insurers, and state laws governing the privacy and security of health information in certain circumstances many of which differ from each other in significant ways, with differing effect. Several states now require implementation of compliance programs, compliance with industry ethics codes and spending limits, and other states require reporting to state governments or the banning of certain gifts, compensation and other remuneration to physicians. Still other state laws require licensing of sales representatives.

Healthcare Reform

The United States government, state legislatures and many foreign jurisdictions have shown significant interest in implementing cost-containment programs or policies to limit the growth of healthcare costs, including price controls, restrictions on reimbursement and requirements for substitution of generic products for branded prescription drugs. For example, the ACA substantially changed the way healthcare is financed by both the government and private insurers, and significantly impacts the U.S. pharmaceutical and device industries. The ACA contains provisions that, among other things, may reduce the profitability of drug products, including through increased rebates for drugs reimbursed by Medicaid programs, extension of Medicaid rebates to Medicaid managed care utilization, and certain annual fees based on pharmaceutical companies' share of sales to federal healthcare programs. The ACA made several changes to the Medicaid Drug Rebate Program, including increasing pharmaceutical manufacturers' rebate liability by raising the minimum basic Medicaid rebate. The ACA also expanded the universe of Medicaid utilization subject to drug rebates by requiring pharmaceutical manufacturers to pay rebates on Medicaid managed care utilization and by enlarging the population potentially eligible for Medicaid drug benefits.

Other legislative changes since the ACA was enacted include the Budget Control Act of 2011, which, among other things, created the Joint Select Committee on Deficit Reduction to recommend to Congress proposals for spending reductions. The Joint Select Committee did not achieve a targeted deficit reduction, which triggered the legislation's automatic reductions. In concert with subsequent legislation, this has resulted in aggregate reductions of Medicare payments to providers of, on average, 2% per fiscal year through 2031. Sequestration is currently set at 2% and will increase to 2.25% for the first half of fiscal year 2030, to 3% for the second half of fiscal year 2030, and to 4% for the remainder of the sequestration period that lasts through the first six months of fiscal year 2031. As long as these cuts remain in effect, they could adversely impact payment for any of our products that are reimbursed under Medicare, once commercialized.

Congress and CMS have authority to revise reimbursement rates and to implement coverage restrictions. Cost-reduction initiatives and changes in coverage implemented through legislation or regulation could decrease reimbursement for or utilization of any approved products, which in turn could affect the price we can receive for those products. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payment from commercial payers. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability or commercialize our products.

Foreign Regulation

In addition to regulations in the United States, we may be subject to a number of significant regulations in other jurisdictions regarding research, clinical trials, approval, manufacturing, distribution, marketing and promotion, safety reporting, privacy and pricing and reimbursement. These requirements and restrictions vary from country to country, but in many instances are similar to the United States' requirements, and failure to comply with them could have similar negative effects as noncompliance in the United States.

Employees

As of March 15, 2024, we employed 119 individuals, of which 116 were full-time employees and 3 were part-time employees. Of these 119 employees, 18 have M.D., Ph.D. or PharmD degrees. Our future success will depend, in part, on its ability to attract, retain and motivate highly qualified technical and management personnel. From time to time, we may employ independent consultants or contractors to support our research and development, accounting and administrative organizations.

Corporate Information

On February 14, 2023, Isoray, Inc. changed its corporate name to Perspective Therapeutics, Inc. ("Perspective" or the "Company"), and its stock symbol changed to "CATX" from "ISR" shortly thereafter. Perspective Therapeutics (formerly known as Isoray, Inc. and Century Park Pictures Corporation) was incorporated in Minnesota in 1983 and reincorporated to Delaware on December 28, 2018. On July 28, 2005, Isoray Medical, Inc. ("Isoray") became a wholly owned subsidiary of the Company pursuant to a merger. Isoray was formed under Delaware law on June 15, 2004, and on October 1, 2004, acquired two affiliated predecessor companies that began operations in 1998. Isoray, a Delaware corporation, develops, manufactures and sells isotope-based medical products and devices for the treatment of cancer and other malignant diseases. Isoray is headquartered in Richland, WA. Isoray International LLC ("International"), a Washington limited liability company, was formed on November 27, 2007, and is a wholly owned subsidiary of the Company. International has entered into various international distribution agreements. Viewpoint Molecular Targeting, Inc. ("Viewpoint"), a Delaware corporation, became a wholly owned subsidiary of the Company on February 3, 2023 pursuant to the merger. Viewpoint is an alpha-particle radiopharmaceutical company in the alpha-emitter market, developing oncology therapeutics and complementary imaging agents. Perspective Therapeutics Ltd, an Australian registered company, was formed on April 14, 2023 as a wholly owned subsidiary of the Company.

Available Information

Our website address is www.perspectivetherapeutics.com. Information on this website is not a part of this Form 10-K. Our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, Forms 3, 4 and 5 filed on behalf of directors and executive officers, and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 ("Exchange Act") are available free of charge on our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission ("SEC"). The SEC maintains a website (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, including us.

Information regarding our corporate governance, including the charters of our audit committee, our nominations and corporate governance committee and our compensation committee, and our Codes of Conduct and Ethics is available on our website (www.perspectivetherapeutics.com). We will provide copies of any of the foregoing information without charge upon request to Mark Austin, Vice President of Finance and Corporate Controller, 2401 Elliott Avenue, Suite 320, Seattle, WA 98121.

ITEM 1A – RISK FACTORS

Our business is subject to substantial risks and uncertainties. The occurrence of any of the following risks and uncertainties, either alone or taken together, could materially and adversely affect our business, financial condition, results of operations or prospects. In these circumstances, the market price of our common shares could decline and you may lose all or part of your investment. The risks and uncertainties described below are not the only ones we face. Risks and uncertainties of general applicability and additional risks and uncertainties not currently known to us or that we currently deem to be immaterial may also materially and adversely affect our business, financial condition, results of operations or prospects.

Risks Related to Our Business, Financial Results and Need for Additional Capital

We are a clinical-stage biopharmaceutical company and has a limited operating history upon which to base an investment decision. Since the Viewpoint merger in 2023, we have engaged primarily in research and development activities of VMT-α-NET, VMT01 and our other program candidates, have not generated any revenue from product sales other than our discontinued brachytherapy business and have incurred significant net losses. We have not received regulatory approval to market any of our current program candidates. The successful commercialization of any of our program candidates will require us to perform a variety of functions, including:

- completing pre-clinical development and clinical trials;
- obtaining regulatory and marketing approval;
- manufacturing products in compliance with applicable federal, state and local regulations and maintaining supply and manufacturing relationships with third parties that are both commercially feasible and meet regulatory requirements and our supply needs in sufficient quantities to meet market demand for program candidates, if approved;
- conducting sales and marketing activities;
- negotiating favorable terms in any collaboration, licensing, or other arrangements into which we may enter;
- obtaining reimbursement or pricing for our program candidates that supports profitability; and
- managing our spending and cash requirements as our expenses are expected to continue to increase due to research and pre-clinical work, clinical trials, regulatory approvals, commercialization and maintaining our intellectual property portfolio.

Our operations since the Viewpoint merger in 2023 have been limited to organizing and staffing, acquiring, developing and securing the proprietary rights for, and undertaking preclinical development and early-stage clinical trials for VMT-α-NET, VMT01 and our other program candidates. These operations provide a limited basis for our stockholders and prospective investors to assess our ability to complete development of or commercialize VMT-α-NET, VMT01 or any other program candidates given the risks and uncertainties frequently encountered in new and rapidly evolving fields and the advisability of investing in our securities.

Even if one or more of the program candidates is approved for marketing, we anticipate incurring significant costs associated with commercialization of such program candidate. Portions of our current pipeline of program candidates have been in-licensed from third parties, which make the commercial sale of such in-licensed products potentially subject to additional royalty and milestone payments to such third parties. We will also have to continue to acquire manufacturing capabilities to continue manufacturing, development and potential commercialization of our program candidates. Additionally, if we are not able to gain market acceptance for our program candidates or the market is too small or competitive to generate revenue from the sale of any approved products, we may never become profitable.

We will require substantial additional capital to fund our operations. Additional funds may be dilutive to shareholders or impose operational restrictions. Further, if additional capital is not available, we may need to delay, limit or eliminate our research, development and commercialization programs and modify our business strategy. Our principal sources of liquidity are cash and cash equivalents, which were $9.2 million as of December 31, 2023. We believe that our cash and cash equivalents as of December 31, 2023 and the cash we raised through the Lantheus Investment Agreement, the January 2024 Public Offering, and the March 2024 Private Placement will be sufficient to fund our operations and capital investments into 2026. However, changing circumstances may cause us to consume capital faster than we currently anticipate, and we may need to spend more money than currently expected because of such circumstances. Within the next several years, substantial additional funds will be required to continue with the active development of our pipeline program candidates and technologies. In particular, our funding needs may vary depending on a number of factors including:

- the extent to which we continue the development of our program candidates or form licensing arrangements to advance our program candidates;
- our decisions to in-license or acquire additional programs, additional program candidates or technology for development;
- our ability to attract and retain development or commercialization partners, and their effectiveness in carrying out the development and ultimate commercialization of one or more of our program candidates;
- whether batches of program candidates that we manufacture fail to meet specifications resulting in clinical trial delays and investigational and remanufacturing costs;
- the decisions, and the timing of decisions, made by health regulatory agencies regarding our technology and program candidates;
- competing programs, program candidates and technological and market developments; and
- prosecuting and enforcing our patent claims and other intellectual property rights.

We will seek to obtain funding to maintain and advance our business from a variety of sources including equity financings, debt financings, licensing agreements, partnerships, government grants and contracts, and other strategic transactions and funding opportunities. There can be no assurance that we will be able to complete any such transaction on acceptable terms or otherwise.

If we are able to raise additional capital through the issuance of equity securities, the percentage ownership of our current shareholders will be reduced. In addition, we may issue equity as part of the consideration to our licensors, to compensate consultants or to settle outstanding payables, all of which could cause our shareholders to experience additional dilution in net book value per share. Any such additional equity securities may have rights, preferences and privileges senior to those of the holders of our common shares.

Debt financing, if available, will result in increased fixed payment obligations and may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. Any debt financing or additional equity that we raise may contain terms, such as liquidation and other preferences, which are not favorable to us or our existing shareholders. If we raise additional funds through corporate collaborations, partnerships or other strategic transactions, it may be necessary to relinquish valuable rights to our program candidates, our technologies or future revenue streams or to grant licenses or sell assets on terms that may not be favorable to us.

If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we will need to curtail and reduce our operations and costs, and modify our business strategy which may require us to, among other things:

- significantly delay, scale back or discontinue the development or commercialization of one or more of our program candidates or one or more of our research and development initiatives;
- seek collaborators for one or more of our program candidates or one or more of our research and development initiatives at an earlier stage than otherwise would be desirable or on terms that are less favorable than might otherwise be available;
- sell or license on unfavorable terms our rights to one or more of our technologies, program candidates or research and development initiatives that we otherwise would seek to develop or commercialize ourselves; or
- cease operations.

We have incurred losses in nearly every year since our inception, and we anticipate that we will not achieve profits for the foreseeable future. To date, we have incurred losses each fiscal year since inception through the year ended December 31, 2023 and have not received any revenues other than from our brachytherapy business, which is expected to be divested in the first half of 2024. From inception to December 31, 2023, we have an accumulated deficit of approximately $152.4 million. Investment in drug development is highly speculative because it entails substantial upfront capital expenditures and significant risk that a program candidate will fail to gain regulatory approval or become commercially viable. We continue to incur significant research, development and other expenses related to our ongoing operations, including development of our program candidates. We do not expect to achieve profits until such time as product sales, milestone payments and royalty payments, if any, generate sufficient revenues to fund our continuing operations. We cannot predict if we will ever achieve profitability and, if we do, we may not be able to remain consistently profitable or increase our profitability.

We expect to continue to incur significant expenses and operating losses for the foreseeable future. We anticipate that our expenses will continue to be significant if and as we:

- continue our research and preclinical and clinical development of our program candidates;
- initiate additional preclinical, clinical or other studies or trials for our program candidates;
- continue or expand our licensing arrangements with our licensing partners;
- change or add additional manufacturers or suppliers;
- seek regulatory approvals for our program candidates that successfully complete clinical trials;
- establish a sales, marketing and distribution infrastructure to commercialize any program candidates for which we may obtain regulatory approval;
- seek to identify and validate additional program candidates;
- acquire or in-license other program candidates and technologies;
- maintain, protect and expand our intellectual property portfolio;
- attract and retain skilled personnel;
- create additional infrastructure to support our research, product development and planned future commercialization efforts; and
- experience any delays or encounter issues with any of the above.

The net losses we incur may fluctuate significantly from quarter to quarter and year to year, such that a period-to-period comparison of our results of operations may not be a good indication of our future performance.

Risks Related to Our Business and Industry

Coverage and adequate reimbursement may not be available for our products, if commercialized, which could make it difficult for us to sell our products profitably. Market acceptance and sales of any products that we commercialize will depend in part on the extent to which reimbursement for these products and related treatments will be available from third-party payors, including government health administration authorities and private health insurers. Third-party payors decide which drugs they will pay for and establish reimbursement levels. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. However, decisions regarding the extent of coverage and amount of reimbursement to be provided for each of our products will be made on a plan-by-plan basis. One payor's determination to provide coverage for a product does not assure that other payors will also provide coverage, and adequate reimbursement, for the product. Additionally, a third-party payor's decision to provide coverage for a drug does not imply that an adequate reimbursement rate will be approved. Each plan determines whether or not it will provide coverage for a drug, what amount it will pay the manufacturer for the drug, and on what tier of its formulary the drug will be placed. The position of a drug on a formulary generally determines the copayment that a patient will need to make to obtain the drug and can strongly influence the adoption of a drug by patients and physicians. Patients who are prescribed treatments for their conditions and providers performing the prescribed services generally rely on third-party payors to reimburse all or part of the associated healthcare costs. Patients are unlikely to use our products unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of our products.

A primary trend in the United States healthcare industry and elsewhere is cost containment. Third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. We cannot be sure that coverage and reimbursement will be available for any product that we commercialize and, if reimbursement is available, what the level of reimbursement will be. Inadequate coverage and reimbursement may impact the demand for, or the price of, any product for which we obtain marketing approval. If coverage and adequate reimbursement is not available, or is available only to limited levels, we may not be able to successfully commercialize any program candidates that we develop.

Additionally, there have been a number of legislative and regulatory proposals to change the healthcare system in the United States and in some jurisdictions outside the United States that could affect our ability to sell any future products profitably. These legislative and regulatory changes may negatively impact the reimbursement for any future products, following approval.

Our success in international markets also depends upon the eligibility of our product for coverage and reimbursement through government-sponsored healthcare payment systems and third-party payors. Reimbursement practices vary significantly by country. Many international markets have government-managed insurance systems that control reimbursement for our new product and procedures. Other foreign markets have both private insurance systems and government-managed systems that control reimbursement for our new product and procedures. Market acceptance of our product may depend on the availability and level of coverage and reimbursement in any country within a particular time. In addition, healthcare cost containment efforts similar to those we face in the United States are prevalent in many of the other countries in which we intend to sell our product and these efforts are expected to continue.

Our program candidates are in early stages of development and must go through clinical trials, which are very expensive, time consuming and difficult to design and implement. The outcomes of clinical trials are uncertain, and delays in the completion of or the termination of any clinical trial of our program candidates could harm our business, financial condition and prospects. Our research and development programs are at an early stage of development. We must demonstrate our program candidates' safety and efficacy in humans through extensive clinical testing, which is expensive and time consuming and requires specialized knowledge and expertise. Clinical trials are also expensive and difficult to design and implement, in part because they are subject to rigorous regulatory requirements. The clinical trial process is also time consuming, and the outcome is not certain. We estimate that clinical trials of our program candidates will take multiple years to complete. Failure can occur at any stage of a clinical trial, and we could encounter problems that cause us to abandon or repeat clinical trials.

Clinical trials of our program candidates in the United States, must be performed under an Investigational New Drug ("IND") application authorized by the United States Food and Drug Administration ("FDA.") The central focus of an IND submission is on the general investigational plan and the protocol(s) for clinical studies. The IND also includes results of animal studies assessing the toxicology, pharmacokinetics, pharmacology, and pharmacodynamic characteristics of the program. An IND must become effective before human clinical trials may begin. Clinical trials involve the administration of an investigational program to human subjects under the supervision of qualified investigators in accordance with good clinical practices ("GCPs"), which include the requirement that all research subjects provide their informed consent for their participation in any clinical study. Clinical trials are conducted under protocols detailing, among other things, the objectives of the study, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. A separate submission to the existing IND must be made for each successive clinical trial conducted during program development and for any subsequent protocol amendments. Furthermore, an independent institutional review board ("IRB") for each site proposing to conduct the clinical trial must review and approve the plan for any clinical trial and its informed consent form before the clinical trial begins at that site and must monitor the study until completed. Regulatory authorities, the IRB or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the subjects are being exposed to an unacceptable health risk or that the trial is unlikely to meet its stated objectives. Some studies also include oversight by an independent group of qualified experts organized by the clinical study sponsor, known as a data safety monitoring board, which provides authorization for whether or not a study may move forward at designated check points based on access to certain data from the study and may halt the clinical trial if it determines that there is an unacceptable safety risk for subjects or other grounds, such as no demonstration of efficacy. There are also requirements governing the reporting of ongoing clinical studies and clinical study results to public registries.

We currently have two ongoing clinical trials in Phase 1/2a for VMT-α-NET and VMT01. Both trials are registered with ClinicalTrials.gov and have completed their first dose cohorts and are now enrolling in their second dose cohorts. Our lead program candidate, VMT-α-NET, has also received a Fast Track designation, which allows for rapid communication with the FDA on clinical trial development plans and findings. The approved Phase 1/2a trial for VMT-α-NET is entitled "*A Phase 1/2a First-in-Human Study of [212Pb]VMT- α-NET Targeted Alpha-Particle Therapy for Advanced SSTR2 Positive Neuroendocrine Tumors.*" The approved Phase 1/2a trial for our second program candidate, VMT01, is entitled "*A Phase 1/2a, First-In-Human, Multi-Center Dose Escalation and Dose Expansion Study of [203/212Pb]VMT01 Receptor-Targeted, Image Guided Alpha-Particle Therapy in Patients with Previously Treated Unresectable or Metastatic Melanoma.*" Both trials are multi-center.

As with most pharmaceutical products, use of our program candidates could be associated with side effects or adverse events, which can vary in severity and frequency. Side effects or adverse events associated with the use of our program candidates may be observed at any time, including in clinical trials or when a program is commercialized. Undesirable side effects caused by our program candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other foreign authorities. Results of our trials could reveal a high and unacceptable severity and prevalence of side effects, toxicity or other safety issues, and could require us to perform additional studies or halt development or sale of these program candidates or expose us to product liability lawsuits that will harm our business. In such an event, we may be required by regulatory agencies to conduct additional animal or human studies regarding the safety and efficacy of our program candidates that we have not planned or anticipated or our studies could be suspended or terminated, and the FDA or comparable foreign regulatory authorities could order us to cease further development of or deny or withdraw approval of our program candidates for any or all targeted indications. There can be no assurance that we will resolve any issues related to any product-related adverse events to the satisfaction of the FDA or any other regulatory agency in a timely manner, if ever, which could harm our business, prospects and financial condition.

We obtain our supply of Thorium-228 from a single supplier . Our alpha-particle therapies require Thorium-228, which is a radioactive metallic chemical. We have executed an Isotope and Technical Service Order Form dated January 1, 2021, for the purchase of Thorium-228 with the U.S. Department of Energy. This is currently our sole source of Thorium-228. Reliance on any single supplier increases the risks associated with obtaining raw materials. Should the agreement with the U.S. Department of Energy be cancelled or terminated for any reason, we may be unable to obtain an alternative supply of Thorium-228 at a comparable cost, which may have a material adverse impact on our ability to further develop or produce our alpha-particle therapies.

If we encounter difficulties enrolling patients in our clinical trials, our clinical development activities could be delayed or otherwise adversely affected . We may experience difficulties in patient enrollment in our clinical trials for a variety of reasons. The timely completion of clinical trials in accordance with their protocols depends, among other things, on our ability to enroll a sufficient number of patients who remain in the trial until its conclusion. The enrollment of patients depends on many factors, including:

- the patient eligibility criteria defined in the protocol;
- the size of the patient population;
- the proximity and availability of clinical trial sites for prospective patients;
- the design of the trial;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- our ability to obtain and maintain patient consents; and
- the risk that patients enrolled in clinical trials will drop out of the trials before completion, including as a result of changing standards of care or the ineligibility of a site to participate.

Our clinical trials will compete with other clinical trials for program candidates that are in the same therapeutic areas as our program candidates. This competition will reduce the number and types of patients and qualified clinical investigators available to us, because some patients who might have opted to enroll in our trials may instead opt to enroll in a trial being conducted by one of our competitors or clinical trial sites may not allow us to conduct our clinical trial at such site if competing trials are already being conducted there. Since the number of qualified clinical investigators is limited, we expect to conduct some of our clinical trials at the same clinical trial sites that some of our competitors use, which will reduce the number of patients who are available for our clinical trials in such clinical trial site. We may also encounter difficulties finding a clinical trial site at which to conduct our trials.

Delays in patient enrollment may result in increased costs or may affect the timing or outcome of our planned clinical trials, which could prevent completion of these clinical trials and adversely affect our ability to advance the development of our program candidates and may result in additional net losses.

Because the results of preclinical studies and early clinical trials are not necessarily predictive of future results, any program candidate we advance into clinical trials may not have favorable results in later clinical trials, if any, or receive regulatory approval. Pharmaceutical development has inherent risk. We will be required to demonstrate through well-controlled clinical trials that our program candidates are effective with a favorable benefit-risk profile for use in their target indications before we can seek regulatory approvals for their commercial sale. Success in pre-clinical studies or early clinical trials does not mean that later clinical trials will be successful, as program candidates in later-stage clinical trials may fail to demonstrate sufficient safety or efficacy despite having progressed through initial clinical testing, and clinical data are often susceptible to varying interpretations or analyses. We also may need to conduct additional clinical trials that are not currently anticipated. Companies frequently suffer significant setbacks in advanced clinical trials, even after earlier clinical trials have shown promising results.

Delays in the commencement or completion of our clinical trials could result in increased costs and delay our ability to pursue regulatory approval and commercialization of our program candidates. Although we have commenced Phase 1/2a clinical trials for VMT-α-NET and VMT01 in 2023, the completion of clinical trials can be delayed for a variety of reasons, including:

- delay or failure in reaching agreement with the FDA or other regulatory authority outside the United States on the design of a given trial, or in obtaining authorization to commence a trial;
- failure to generate satisfactory pre-clinical, toxicology, or other in vivo or in vitro data or diagnostics to support the initiation or continuation of our clinical trials;
- identifying, recruiting and training suitable clinical investigators;
- reaching agreement on acceptable terms with prospective clinical research organizations (“CROs”) and trial sites, the terms of which can be subject to extensive negotiation, may be subject to modification from time to time and may vary significantly among different CROs and trial sites;
- obtaining sufficient quantities of investigational product for our program candidates for use in clinical trials;
- obtaining IRB or ethics committee approval to conduct a clinical trial at a prospective site;
- identifying, recruiting and enrolling patients to participate in a clinical trial, including delays and/or interruptions resulting from geopolitical actions, disease or public health epidemics, such as the coronavirus, or natural disasters;
- retaining patients who have initiated a clinical trial but may withdraw due to adverse events from the therapy, insufficient efficacy, fatigue with the clinical trial process or personal issues;
- changes in regulatory requirements and guidance that require amending or submitting new clinical protocols;
- inability to identify and maintain a sufficient number of trial sites;
- failure of CROs to meet their contractual obligations or deadlines;
- the need to modify a trial protocol;
- unforeseen safety issues;
- emergence of dosing issues;
- lack of effectiveness data during clinical trials;
- changes in the standard of care of the indication being studied;
- reliance on third-party suppliers for the clinical trial supply of program candidates and failure by our third-party suppliers to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- inability to monitor subjects adequately during or after treatment;
- limitations on our or our CROs’ ability to access and verify clinical trial data captured at clinical trial sites through monitoring and source document verification;
- changes in governmental regulations or administrative action; and
- availability of funds.

Any delays in the commencement of our clinical trials will delay our ability to pursue regulatory approval for our program candidates. In addition, many of the factors that cause, or lead to, a delay in the commencement of clinical trials may also ultimately lead to the denial of regulatory approval of a program candidate.

We may be required to suspend, repeat or terminate our clinical trials if they are not conducted in accordance with regulatory requirements, the results are negative or inconclusive, or the trials are not well designed. Regulatory agencies, IRBs or data safety monitoring boards may at any time recommend the temporary or permanent discontinuation of our clinical trials or request that we cease using investigators in the clinical trials if they believe that the clinical trials are not being conducted in accordance with applicable regulatory requirements, or that they present an unacceptable safety risk to participants. Clinical trials must be conducted in accordance with current Good Clinical Practices ("cGMPs") or other applicable foreign government guidelines governing the design, safety monitoring, quality assurance and ethical considerations associated with clinical studies. Clinical trials are subject to oversight by the FDA, other foreign governmental agencies and IRBs at the study sites where the clinical trials are conducted. In addition, clinical trials must be conducted with program candidates produced in accordance with applicable cGMPs, which are the FDA’s regulations governing the design, monitoring and control of manufacturing processes and facilities. In the EU, clinical trials should be conducted in accordance with guidelines on good clinical practices and in accordance with the Clinical Trials Regulation (“Regulation”), that repealed and replaced the former Clinical Trials Directive. Prior to the Regulation, clinical trial sponsors had to submit clinical trial applications separately to national competent authorities and ethics committees in each country to gain regulatory approval to run a clinical trial. Under the Clinical Trials Regulation, sponsors must submit one application for a new trial to the online Clinical Trials Information System for approval to run a trial in several European countries. Prior to authorization, the clinical trial shall be subject to ethics review performed by an ethics committee, in accordance with the law of the concerned EU member state.

Clinical trials may be suspended by the FDA, other foreign governmental agencies or us for various reasons, including:

- deficiencies in the conduct of the clinical trials, including failure to conduct the clinical trial in accordance with regulatory requirements or clinical protocols;
- deficiencies in the clinical trial operations or trial sites;
- the program candidate may have unforeseen adverse side effects;
- deficiencies in the trial design necessary to demonstrate efficacy;
- fatalities or other adverse events arising during a clinical trial due to medical problems that may not be related to clinical trial treatments;
- the program candidate may not appear to be more effective than current therapies; or
- the quality or stability of the program candidate may fall below acceptable standards.

If we elect or are forced to suspend or terminate a clinical trial for VMT-α-NET, VMT01 or of any other program candidates, the commercial prospects for that program candidate will be harmed and our ability to generate product revenue from that program candidate may be delayed or eliminated. Furthermore, any of these events could prevent us or our partners from achieving or maintaining market acceptance of the affected program candidate and could substantially increase the costs of commercializing our program candidates and impair our ability to generate revenue from the commercialization of these program candidates, either by us or by our collaboration partners.

The approval processes of regulatory authorities are lengthy, time consuming, expensive and inherently unpredictable; if we experience unanticipated delays or are unable to obtain approval for our program candidates from applicable regulatory authorities, we will not be able to market and sell those program candidates in those countries or regions and our business will be substantially harmed. The time required to obtain approval by the FDA in the United States and by comparable health authorities in foreign markets, including Health Canada's Therapeutic Products Directorate, or the TPD, and European Medicines Agency, or the EMA, is unpredictable but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the type, complexity and novelty of the programs involved and in substantial discretion of the regulatory authorities. Our ability to obtain marketing approval for these program candidates depends on obtaining the final results of required clinical testing and non-clinical testing, including characterization of the manufactured components of our program candidates and validation of our manufacturing processes, that meet applicable regulatory standards. We have not submitted an NDA or similar filing or obtained regulatory approval for any program candidate in any jurisdiction, and it is possible that none of our existing program candidates or any program candidates we may seek to develop in the future will ever obtain regulatory approval.

The FDA, the TPD and/or the EMA can delay, limit or deny approval of VMT-α-NET, VMT01 and our other program candidates for many reasons, including any one or more of the following:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a program candidate is safe and effective for its proposed indication;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- we may be unable to demonstrate that a program candidate’s clinical and other benefits outweigh its safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials of our program candidates may not be sufficient to support the submission of an NDA or other submission or to obtain regulatory approval in the United States or elsewhere;
- the FDA or comparable foreign regulatory authorities may fail to hold to previous agreements or commitments;
- the FDA or comparable foreign regulatory authorities may fail to approve the manufacturing processes or facilities of third-party manufacturers with which we contract for clinical and commercial supplies;
- the FDA or comparable foreign regulatory authorities may fail to approve our program candidates; and
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

The time and expense of the approval process, as well as the unpredictability of clinical trial results and other contributing factors, may result in our failure to obtain regulatory approval to market, in one or more jurisdictions, VMT-α-NET and VMT01 or future program candidates, which would significantly harm our business, results of operations and prospects.

We intend to rely on third-party collaborators to market and sell our programs, and those third-party collaborators may not have the resources to pursue approvals, which in turn could severely limit our potential markets and ability to generate revenue. In order to market and sell our programs in any jurisdiction, we or our third-party collaborators must obtain separate marketing approvals in that jurisdiction and comply with its regulatory requirements. The approval procedure can vary drastically among countries, and each jurisdiction may impose different testing and other requirements to obtain and maintain marketing approval. Further, the time required to obtain those approvals may differ substantially among jurisdictions. Approval by the FDA or an equivalent foreign authority does not ensure approval by regulatory authorities in any other countries or jurisdictions. As a result, the ability to market and sell a program candidate in more than one jurisdiction can involve significant additional time, expense and effort to undertake separate approval processes, and could subject us and our collaborators to the numerous and varying post-approval requirements of each jurisdiction governing commercial sales, manufacturing, pricing and distribution of VMT-α-NET and VMT01 and our other program candidates. We or any third parties with whom we may collaborate may not have the resources to pursue those approvals, and we or they may not be able to obtain any approvals that are pursued. The failure to obtain marketing approval for VMT-α-NET, VMT01 and our other program candidates in foreign jurisdictions could severely limit our potential markets and our ability to generate revenue.

In addition, even if we were to obtain regulatory approval in one or more jurisdictions, regulatory authorities may approve VMT-α-NET, VMT01 and our other program candidates for fewer or more limited indications than we request, may not approve the prices we may propose to charge for our programs, may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a program candidate with labeling that does not include the claims necessary or desirable for the successful commercialization of that program candidate. Any of the foregoing circumstances could materially harm the commercial prospects for VMT-α-NET, VMT01 and our other program candidates.

Our program candidates may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval, limit the commercial profile of the approved labeling, or result in significant negative consequences following marketing approval, if any. Results of current and future clinical trials of VMT-α-NET, VMT01 and our other program candidates could reveal a high and/or unacceptable severity and frequency of these adverse effects. In such an event, our trials could be suspended or terminated, and the FDA or comparable foreign regulatory authorities could order us to cease further development of, or deny approval of, our program candidates for any or all targeted indications. Further, any observed drug-related side effects could affect patient recruitment or the ability of enrolled patients to complete the trial or result in potential product liability claims. This, in turn, could prevent us from commercializing the affected program candidate and generating revenues from our sales. We have not yet completed testing of any of our program candidates for the treatment of the indications for which we intend to seek product approval in humans, and we currently do not know the extent of adverse events, if any, that will be observed in patients who receive any of our program candidates. If any of our program candidates cause unacceptable adverse events in clinical trials resulting in a clinical hold, we cannot give any assurance that we will be able to resolve any future clinical holds imposed by the FDA or other regulatory authorities outside of the United States on a timely basis or at all.

Additionally, if VMT-α-NET, VMT01 and our other program candidates receive marketing approval, and we or others later identify undesirable side effects caused by our programs, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw approvals of such program;
- regulatory authorities may require additional warnings in the program's labeling;
- we may be required to create a medication guide for distribution to patients that outlines the risks of such side effects;
- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular program, if approved, and could significantly harm our business, results of operations and prospects.

If we are unable to execute our sales and marketing strategy for our program candidates, if commercialized, and are unable to gain market acceptance, we may be unable to generate sufficient revenue to sustain our business. We are a clinical-stage biopharmaceutical company and have yet to begin to generate revenue from VMT-α-NET, VMT01 and our other program candidates. Our program candidates are in an early stage of clinical development, and, if we obtain marketing approval for any of our programs in the future, we anticipate this would not occur for several years, if at all.

Although we believe that VMT-α-NET and VMT01 represent a promising commercial opportunity, it may never gain significant market acceptance and therefore may never generate substantial revenue or profits for us. We will need to establish a market for VMT-α-NET, VMT01 and our other program candidates and build that market through physician education, awareness programs and the publication of clinical data. Gaining acceptance in medical communities requires, among other things, publication in leading peer-reviewed journals of results from our studies. The process of publication in leading medical journals is subject to a peer review process and peer reviewers may not consider the results of our studies sufficiently novel or worthy of publication. Failure to have our studies published in peer-reviewed journals could limit the adoption of VMT-α-NET, VMT01 or our other program candidates. Our ability to successfully market our program candidates that we may develop will depend on numerous factors, including:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- the inability to demonstrate that the clinical and other benefits of a program candidate outweigh any safety or other perceived risks;
- conducting clinical utility studies of our program candidates to demonstrate economic usefulness to providers and payors;
- whether our current or future partners support our offerings;
- the success of the sales force and marketing effort;
- whether healthcare providers believe our program candidates provide clinical utility; and
- whether private health insurers, government health programs and other third-party payors will cover our program candidates.

Because we license some of our program candidates from third parties, any dispute with our licensors or non-performance by us or by our licensors may adversely affect our ability to develop and commercialize the applicable program candidates. Some of our program candidates, including VMT-α-NET and VMT01, including related intellectual property rights, were licensed from third parties. Under the terms of our license agreements, the licensors generally have the right to terminate such agreements in the event of a material breach by us. Our licenses require us to make annual, milestone or other payments prior to commercialization of any program and our ability to make these payments depends on our ability to generate cash in the future. These agreements generally require us to use diligent and reasonable efforts to develop and commercialize the program candidate.

If there is any conflict, dispute, disagreement or issue of nonperformance between us and our licensing partner regarding our rights or obligations under the license or other agreements, including any conflict, dispute or disagreement arising from our failure to satisfy payment obligations under such agreement or question as to which party owns newly developed product(s), our ability to develop and commercialize the affected program candidate may be adversely affected. Any loss of our rights under our license agreements could delay or completely terminate our program development efforts for the affected program candidate, and we may not obtain the revenues anticipated.

We may form or seek strategic alliances or enter into additional licensing arrangements in the future, and we may not realize the benefits of such alliances or licensing arrangements. From time to time, we may form or seek strategic alliances, create joint ventures or collaborations, or enter into additional licensing arrangements with third parties that we believe will complement or augment our development and commercialization efforts with respect to VMT-α-NET, VMT01 and our other program candidates and any future program candidates that we may develop. Any of these relationships may require us to incur nonrecurring and other charges, increase our near and long-term expenditures, or disrupt our management and business. These relationships also may result in a delay in the development of VMT-α-NET, VMT01 and our other program candidates if we become dependent upon the other party and such other party does not prioritize the development of our program candidates relative to our other development activities. In addition, we face significant competition in seeking appropriate strategic partners and the negotiation process is time consuming and complex. Moreover, we may not be successful in our efforts to establish a strategic partnership or other alternative arrangements for our program candidates because they may be deemed to be at too early of a stage of development for collaborative effort and third parties may not view our program candidates as having the requisite potential to demonstrate safety and efficacy. If we license programs or businesses, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture. We cannot be certain that, following a strategic transaction or license, we will achieve the revenue or specific net income that justifies such transaction. We rely completely on third parties to manufacture our preclinical and clinical pharmaceutical supplies and expect to continue to rely on third parties to produce commercial supplies of our program candidates, and our dependence on third-party suppliers could adversely impact our business.

We may rely partially on third parties to manufacture our clinical pharmaceutical supplies and could continue to rely on third parties to produce commercial supplies of any approved program candidate, and our dependence on third-party suppliers could adversely impact our business. We may not have the resources or capacity to commercially manufacture any of our proposed programs, if approved, and may be dependent upon third-party manufacturers. Our potential reliance on third-party manufacturers may expose us to risks, such as difficulties in manufacturing or obtaining from third parties sufficient quantities of a product candidate for use in clinical trials or commercial use that meet internal and regulatory standards. Our possible dependence on third parties to manufacture and supply us with clinical trial materials and any approved programs may adversely affect our ability to develop and commercialize our programs on a timely basis or at all.

We rely on third parties to conduct our clinical trials and if these third parties do not meet their deadlines or otherwise conduct the trials as required, our clinical development programs could be delayed or unsuccessful and we may not be able to obtain regulatory approval for or commercialize our program candidates when expected or at all. We do not have the ability to conduct all aspects of our preclinical testing or clinical trials themselves. We use CROs to conduct our planned clinical trials and will rely upon such CROs, as well as medical institutions, clinical investigators, and consultants, to conduct our trials in accordance with our clinical protocols pursuant to contracts with such entities. Our CROs, investigators and other third parties will play a significant role in the conduct of these trials and the subsequent collection and analysis of data from the clinical trials.

There is no guarantee that any CROs, investigators and other third parties upon which we rely for administration and conduct of our clinical trials will devote adequate time and resources to such trials or perform as contractually required, and therefore, we cannot be assured that these third parties will adequately perform all of their contractual obligations to us. If any of these third parties fail to meet expected deadlines, compromise the quality or accuracy of clinical trial data by failing to adhere to its clinical protocols or otherwise perform in a substandard manner, such as by failing to follow legal or regulatory requirements, our clinical trials may be extended, delayed, or terminated. If any of our relationships with these third parties terminate, we may not be able to enter into arrangements with alternative third parties on commercially reasonable terms or at all. If any of its clinical trial sites terminate for any reason, we may experience the loss of follow-up information on patients enrolled in its ongoing clinical trials unless we are able to transfer the care of those patients to another qualified clinical trial site. Switching or adding additional third-party service providers involves additional cost and requires management time and focus. In addition, there is a natural transition period when a new third-party service provider begins work. As a result, delays may occur, which can materially impact our ability to meet our desired development timelines.

In addition, principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and receive cash or equity compensation in connection with such services. If these relationships and any related compensation result in perceived or actual conflicts of interest, the integrity of the data generated at the applicable clinical trial site may be jeopardized.

We may seek orphan drug designation, rare pediatric disease designation, or other FDA designations, but may not receive such designation. Even if FDA grants the designation, we may not receive orphan drug exclusivity or a priority review voucher, if the program candidate does not meet the FDA requirements at the time of approval or licensure. We may seek orphan drug designations for VMT-α-NET for NET subtype indications. Typically, orphan designation is available for products intended to treat a disease or condition that affects fewer than 200,000 individuals in the United States. The sponsor must demonstrate that the program candidate meets the statutory criteria for orphan designation, and if a competitor receives orphan drug exclusivity for the same rare disease or condition, this may affect our ability to obtain orphan drug designation and/or exclusivity. We may also pursue rare pediatric disease designation for use of VMT-α-NET for advanced neuroblastoma after review of Phase 1 trial data. A priority review voucher ("PRV") may be granted to a drug indicated for a rare pediatric disease. The PRV program must be reauthorized by Congress by September 30, 2024, and a failure to reauthorize the legislation may preclude us from obtaining a PRV in the future.

We have received Fast Track designation for VMT-α-NET, but such designation may not actually lead to a faster development or regulatory review or approval process. Additionally, the FDA may rescind the designation if it determines the product candidate no longer meets the qualifying criteria for Fast Track. The FDA may grant Fast Track designation to a product candidate intended for the treatment of a serious condition and nonclinical or clinical data demonstrate the potential to address unmet medical need for this condition. We recently received Fast Track designation for VMT-α-NET. However, Fast Track designation does not ensure that we will receive marketing approval or that approval will be granted within any particular time frame. We may not experience a faster development or regulatory review or approval process with Fast Track designation compared to conventional FDA procedures. In addition, the FDA may withdraw Fast Track designation if it believes that the designation is no longer supported by data from our clinical development program. Fast Track designation alone does not guarantee qualification for the FDA's priority review procedures.

We will face intense competition and may not be able to compete successfully . We operate in highly competitive segments of the biotechnology and biopharmaceutical markets. We face competition from many different sources, including commercial pharmaceutical and biotechnology enterprises, academic institutions, government agencies, and private and public research institutions. VMT-α-NET, VMT01 and our other program candidates, if successfully developed and approved, will compete with established therapies, as well as new treatments that may be introduced by our competitors. Many of our competitors have significantly greater financial, product development, manufacturing, and marketing resources than us. Large pharmaceutical companies have extensive experience in clinical testing and obtaining regulatory approval for drugs. We also may compete with these organizations to recruit management, scientists, and clinical development personnel. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. New developments, including the development of other biological and pharmaceutical technologies and methods of treating disease, occur in the pharmaceutical and life sciences industries at a rapid pace. Developments by competitors may render our program candidates obsolete or noncompetitive. We will also face competition from these third parties in recruiting and retaining qualified personnel, establishing clinical trial sites and patient registration for clinical trials and in identifying and in-licensing new program candidates.

There are several companies developing alpha-based radiopharmaceuticals for the treatment of cancer, including Bayer, Novartis, Bristol-Myers Squibb (with their recent acquisition of RayzeBio), Eli Lilly (with their recent acquisition of POINT Biopharma), Telix Pharmaceuticals Limited, Actinium Pharmaceuticals, Inc., RadioMedix, Inc., Orano Med, Aktis Oncology, Fusion Pharmaceuticals, Inc. (which announced on March 19, 2024 that they are being acquired by AstraZeneca), Aktis Oncology, Inc., Convergent Therapeutics, Janssen, ARTBIO and Curie Therapeutics, Inc. These companies use various alpha-emitting isotopes such as ^{223}Ra, ^{225}Ac, ^{212}Pb and ^{227}Th. Most alpha-based radiopharmaceuticals are in clinical development, with Bayer's Xofigo® being the only approved alpha particle-based therapy. Xofigo® was approved in 2013 for the treatment of symptomatic bone metastases in people with castration-resistant prostate cancer.

There are also companies with beta-based radiopharmaceuticals, both in development and already approved. There are multiple companies, including Lantheus, Novartis and Q BioMed Inc., with approved beta-based radiopharmaceutical products using isotopes such as ^{131}I, ^{177}Lu, ^{89}Sr and ^{90}Y. Novartis' Lutathera® and Pluvicto® are prominent beta-based radioligands, and other beta-based radiopharmaceuticals are in various stages of clinical development by companies including Novartis, Curium SAS, Nordic Nanovector, Cellectar Biosciences, ITM Isotope Technologies Munich SE, Clovis Oncology and Y-mAbs Therapeutics, Inc., Actinium Pharmaceuticals, Inc., Lantheus, Blue Earth Therapeutics and Clarity Pharmaceuticals.

For our program candidate [^{212}Pb]VMT-α-NET, we are aware of several competing therapies targeting neuroendocrine tumors. Novartis' Lutathera®, which was approved in 2018, uses ^{177}Lu for the treatment of individuals with somatostatin receptor-positive gastroenteropancreatic neuroendocrine cancers. We are aware of the following companies with neuroendocrine tumor, radioligand preclinical and clinical development programs: ITM, Bristol-Myers Squibb (through their recent acquisition of RayzeBio), Eli Lilly (through their recent acquisition of POINT Biopharma) and Radiomedix. We also face potential competition from other treatments targeting neuroendocrine tumors such as Sandostatin® and Afinitor® (Novartis), Somatuline® (Ipsen) and Sutent® (Pfizer). While we believe [^{212}Pb]VMT-α-NET has significant advantages compared to conventional approaches to neuroendocrine tumors, we may still face competition from these more established treatments.

Our success will depend upon intellectual property, proprietary technologies and regulatory market exclusivity periods, and we may be unable to protect our intellectual property. Our success will depend, in large part, on obtaining and maintaining patent protection, regulatory exclusivity and trade secret protection for VMT-α-NET, VMT01 and our other program candidates and their formulations and uses, as well as successfully defending these patents against third-party challenges. If we or our licensors fail to appropriately prosecute and maintain patent protection or obtain regulatory exclusivity for its program candidates, our ability to develop and commercialize these program candidates may be adversely affected and we may not be able to protect our competitive position. This failure to properly protect the intellectual property rights relating to these program candidates could have a material adverse effect on our financial condition and results of operations.

The patent application process is subject to numerous risks and uncertainties, and there can be no assurance that we or our licensors will be successful in protecting our program candidates by obtaining and defending patents. These risks and uncertainties include the following:

- patent applications may not result in any patents being issued;
- patents that may be issued or in-licensed may be challenged, invalidated, modified, revoked, circumvented, found to be unenforceable, or otherwise may not provide any competitive advantage;
- our competitors, many of which have substantially greater resources than us or our partners and many of which have made significant investments in competing technologies, may seek, or may already have obtained, patents that will limit, interfere with, or eliminate our ability to make, use and sell our potential programs;
- there may be significant pressure on the United States government and other international governmental bodies to limit the scope of patent protection both inside and outside the United States for disease treatments that prove successful as a matter of public policy regarding worldwide health concerns;
- countries other than the United States may have patent laws less favorable to patentees than those upheld by United States courts, allowing foreign competitors a better opportunity to create, develop, and market competing products; and
- we may be involved in lawsuits to protect or enforce our patents or the patents of our licensors, which could be expensive, time consuming and unsuccessful.

In addition to patents and regulatory exclusivity, we and our licensors also rely on trade secrets and proprietary know-how. Although we have taken steps to protect our trade secrets and unpatented know-how, including entering into confidentiality agreements with third parties, and confidential information and inventions agreements with employees, consultants and advisors, third parties may still obtain this information or come upon this same or similar information independently. We may become subject to claims that we or our consultants, advisors or independent contractors that it may engage to assist us in developing VMT-α-NET, VMT01 and our other program candidates have wrongfully or inadvertently disclosed to us or used trade secrets or other proprietary information of their former employers or their other clients.

We intend to rely on market exclusivity periods that may not be or remain available to us . We intend to rely on our ability to obtain and maintain a regulatory period of market exclusivity for any of our program candidates, including VMT-α-NET and VMT01 that are successfully developed and approved for commercialization. The exclusivity period in Europe is currently 10 years from the date of marketing approval by the European Commission ("EC"). However, in April 2023, the EC published a proposal to reform the current pharmaceutical framework. This proposal also intends to shorten the market exclusivity period 'baseline' from ten years to eight years. The EC proposal also intends to shorten the orphan market exclusivity period for new orphan medicinal products for rare diseases. The legislative process for this reform is expected to take several years. It is currently uncertain if the proposal will be adopted in its current form, and it is uncertain if and when the revised legislation would enter into force. Once any regulatory period of exclusivity expires, depending on the status of its patent coverage and the nature of the program, we may not be able to prevent others from marketing products that are biosimilar to or interchangeable with our programs, which would materially adversely affect us.

We must deploy our sales and marketing capabilities to market, distribute and sell our programs if any of our program candidates are approved, and may not be effective in doing so. We do not currently have the infrastructure for the sales, marketing and distribution of any of our program candidates and will need to hire a sales force and develop infrastructure to perform these functions in order to commercialize any programs that we may successfully develop. This sales function may also be outsourced which could lead to additional costs.

If any program candidate that we successfully develop does not achieve broad market acceptance among physicians, patients, healthcare payors and the medical community, the revenues that we generate from their sales will be limited. Even if VMT-α-NET, VMT01 and our other program candidates receive regulatory approval, they may not gain market acceptance among physicians, patients, healthcare payors and the medical community. Coverage and reimbursement of our program candidates by third-party payors, including government payors, generally is also necessary for commercial success. The degree of market acceptance of any approved programs will depend on a number of factors, including:

- the efficacy and safety as demonstrated in clinical trials;
- the clinical indications for which the program is approved;
- acceptance by physicians, major operators of hospitals and clinics and patients of the program as a safe and effective treatment;
- acceptance of the program by the target population;
- the potential and perceived advantages of program candidates over alternative treatments;
- the safety of program candidates seen in a broader patient group, including its use outside the approved indications;
- the cost of treatment in relation to alternative treatments;
- the availability of adequate reimbursement and pricing by third parties and government authorities;
- relative convenience and ease of administration;
- the prevalence and severity of adverse events;
- the effectiveness of our sales and marketing efforts; and
- unfavorable publicity relating to the program.

If any program candidate is approved but does not achieve an adequate level of acceptance by physicians, hospitals, healthcare payors and patients, we may not generate sufficient revenue from these programs and may not become or remain profitable.

Due to the significant resources required for the development of our drug candidates, we must prioritize development of certain drug candidates and/or certain disease indications and may expend our limited resources on candidates or indications that do not yield a successful program and fail to capitalize on drug candidates or indications that may be more profitable or for which there is a greater likelihood of success. We plan to develop a pipeline of drug candidates to treat various tumors and other diseases states where targeted alpha-particle therapy may be effective. Due to the significant resources required for the development of drug candidates, we must focus our attention and resources on specific diseases and/or indications and decide which drug candidates to pursue and the number of resources to allocate to each. We are currently focusing our resources on the development of our lead program candidates, VMT-α-NET for the treatment of neuroendocrine tumors and VMT01 for the treatment of patients with metastatic melanoma where the MC1R protein is expressed on the surface of the tumor.

Our decisions concerning the allocation of research, development, collaboration, management and financial resources toward particular drug candidates or therapeutic areas may not lead to the development of any viable commercial program and may divert resources away from better opportunities. Similarly, any decision to delay, terminate or collaborate with third parties in respect of certain programs or program candidates may subsequently prove to be suboptimal and could cause us to miss valuable opportunities. If we make incorrect determinations regarding the viability or market potential of any of our programs or program candidates or misread trends in the oncology field or biotechnology industry, our business, financial condition and results of operations could be materially adversely affected. As a result, we may fail to capitalize on viable commercial programs or profitable market opportunities, be required to forego or delay pursuit of opportunities with other program candidates or other diseases and indications that may later prove to have greater commercial potential than those it choose to pursue, or relinquish valuable rights to such program candidates through collaboration, licensing or other royalty arrangements in cases in which it would have been advantageous for us to invest additional resources to retain development and commercialization rights.

If we fail to attract and retain key management and clinical development personnel, we may be unable to successfully develop or commercialize our program candidates. We are dependent on our management team and clinical development personnel and our success will depend on their continued service, as well as our ability to attract and retain other highly qualified employees, consultants and advisors for our business, including scientific and technical personnel. There is currently a shortage of highly qualified personnel in our industry, which is likely to continue. As a result, the market for the services of qualified personnel in the biotechnology and pharmaceutical industries is highly competitive. We may not be able to attract and retain personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for individuals with similar skill sets. The inability to recruit and retain qualified personnel, or the loss of service of any member of its senior management team or key personnel could prevent, impair or delay the implementation of our business plan, the progress of our research, development and commercialization objectives and would negatively impact our ability to succeed in our product development strategy. We do not carry any key man insurance for any member of our senior management team.

Our ability to compete may decline if we do not adequately protect our proprietary rights . Our success depends on obtaining and maintaining proprietary rights to our drug candidates for the treatment of cancer, as well as successfully defending these rights against third-party challenges. We will only be able to protect our drug candidates and their uses from unauthorized use by third parties to the extent that valid and enforceable patents, or effectively protected trade secrets, cover them. Our ability to obtain patent protection for our drug candidates is uncertain due to a number of factors, including:

- we may not have been the first to make the inventions covered by pending patent applications or issued patent;
- we may not have been the first to file patent applications for our drug candidates or the compositions we developed or for their uses;
- others may independently develop identical, similar or alternative products or compositions and uses thereof;
- our disclosures in patent applications may not be sufficient to meet the statutory requirements for patentability;
- any or all of its pending patent applications may not result in issued patents;
- we may not seek or obtain patent protection in countries that may eventually provide us a significant business opportunity;
- any patents issued to us may not provide a basis for commercially viable programs, may not provide any competitive advantages or may be successfully challenged by third parties;
- our compositions and methods may not be patentable;
- others may design around our patent claims to produce competitive programs which fall outside of the scope of our patents;
- others may identify prior art or other bases which could invalidate our patents.

Even if we have or obtain patents covering our drug candidates or compositions, we may still be barred from making, using and selling our drug candidates or technologies because of the patent rights of others. Others may have filed, and in the future may file, patent applications covering compositions or products that are similar or identical to ours. There are many issued U.S. and foreign patents relating to chemical compounds and therapeutic products, and some of these relate to compounds we intend to commercialize. These could materially affect our ability to develop our drug candidates or sell our programs, if approved. Because patent applications can take many years to issue, there may be currently pending applications unknown to us that may later result in issued patents that our drug candidates or compositions may infringe. These patent applications may have priority over patent applications filed by us.

Obtaining and maintaining a patent portfolio entails significant expense and resources. Part of the expense includes periodic maintenance fees, renewal fees, annuity fees, various other governmental fees on patents and/or applications due in several stages over the lifetime of patents and/or applications, as well as the cost associated with complying with numerous procedural provisions during the patent application process. We may or may not choose to pursue or maintain protection for particular inventions. In addition, there are situations in which failure to make certain payments or noncompliance with certain requirements in the patent process can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. If we choose to forgo patent protection or allow a patent application or patent to lapse purposefully or inadvertently, our competitive position could suffer.

Risks Related to Our Discontinued Brachytherapy Industry and Operations

Continuing regulatory liability may exist from our discontinued operations . In addition to FDA-required market approvals for our program formats, our brachytherapy manufacturing operations are required to comply with the FDA's Quality System Regulation ("QSR"), which addresses requirements for a company's quality program such as management responsibility, good manufacturing practices, product and process design controls, document controls, purchasing controls and acceptance activities, nonconforming product requirements, corrective and preventive action requirements, labeling and packaging controls, handling, storage and distribution requirements, complaint handling, records requirements and other quality controls used in manufacturing. Additionally, labeling and promotional activities are subject to agency scrutiny and medical devices approved or cleared by FDA may not be promoted for unapproved or uncleared uses. Although the brachytherapy segment is currently being divested by us, the FDA may still hold us accountable for violations of the QSR, labeling and promotional rules, and other regulations governing medical devices that occurred prior to divesting the business segment.

We are subject to the risk that certain third parties may mishandle our product. We rely on third parties, such as Federal Express, to deliver our Cesium-131 seed, and on other third parties to package our product in certain specialized packaging forms requested by customers. We are subject to the risk that these third parties may mishandle our product, which could result in adverse effects, particularly given the radioactive nature of our product.

Quality problems with our product could harm our reputation for producing a high-quality product and erode our competitive advantage, sales and market share. Quality is extremely important to us and our customers due to the serious and costly consequences of product failure, which can include patient harm. Our operating results depend in part on our ability to sustain an effective quality control system and effectively train and manage our employee base with respect to our quality system. Our quality system plays an essential role in determining and meeting customer requirements, preventing defects and improving our product. While we have a network of quality systems throughout our business lines and facilities, quality and safety issues may occur with respect to any of our product formats. A quality or safety issue may result in a public warning letter from the FDA, product recalls or seizures, monetary sanctions, injunctions to halt manufacturing and distribution of products, civil or criminal sanctions, refusal of a government to grant clearances or approvals or delays in granting such clearances or approvals, import detentions of any future products made outside the United States, restrictions on operations or withdrawal or suspension of existing approvals. Negative publicity regarding a quality issue could damage our reputation, cause us to lose customers, or decrease demand for our product and product formats. Any of the foregoing events could disrupt our business and have an adverse effect on our results of operations and financial condition.

We rely upon key personnel. Our success will depend, to a great extent, upon the experience, abilities and continued services of our executive officers and key scientific personnel. If we lose the services of several officers or key scientific personnel, our business could be harmed. Our success also will depend upon our ability to attract and retain other highly qualified scientific and managerial personnel and their ability to develop and maintain relationships with key individuals in the industry. Competition for these personnel and relationships is intense and we compete with numerous pharmaceutical and biotechnology companies as well as with universities and non-profit research organizations. We may not be able to continue to attract and retain qualified personnel.

Legal and Regulatory Risks Related to Our Operations

Significant disruptions of information technology systems or breaches of data security could materially adversely affect our business, results of operations and financial condition. We collect and maintain information in digital form that is necessary to conduct our business, and we are increasingly dependent on information technology systems and infrastructure to operate our business. In the ordinary course of our business, we collect, store and transmit large amounts of confidential information, including intellectual property, proprietary business information and personal information. It is critical that we do so in a secure manner to maintain the confidentiality and integrity of such confidential information. We have established physical, electronic and organizational measures to safeguard and secure our systems to prevent a data compromise, and we rely on commercially available systems, software, tools and monitoring to provide security for our information technology systems and the processing, transmission and storage of digital information. We have also outsourced elements of our information technology infrastructure and, as a result, a number of third-party vendors may or could have access to our confidential information. Our internal information technology systems and infrastructure, and those of our current and any future collaborators, contractors and consultants and other third parties on which we rely, are vulnerable to damage from computer viruses, malware, natural disasters, terrorism, war, telecommunication and electrical failures, cyber-attacks or cyber-intrusions over the Internet, attachments to emails, persons inside its organization, or persons with access to systems inside our organization.

The risk of a security breach or disruption, particularly through cyber-attacks or cyber-intrusion, including by computer hackers, foreign governments, and cyber-terrorists, has generally increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased. In addition, the prevalent use of mobile devices that access confidential information increases the risk of data security breaches, which could lead to the loss of confidential information or other intellectual property. The costs to us to mitigate network security problems, bugs, viruses, worms, malicious software programs and security vulnerabilities could be significant, and while we have implemented security measures to protect our data security and information technology systems, our efforts to address these problems may not be successful, and these problems could result in unexpected interruptions, delays, cessation of service and other harm to our business and our competitive position. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our development programs. For example, the loss of clinical trial data from completed or ongoing or planned clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. Moreover, if a computer security breach affects our systems or results in the unauthorized release of personally identifiable information, our reputation could be materially damaged.

In addition, such a breach may require notification to governmental agencies, the media, or individuals pursuant to various federal and state privacy and security laws, if applicable, including the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), and its implementing rules and regulations, as well as regulations promulgated by the Federal Trade Commission ("FTC") and state comprehensive privacy and breach notification laws.

We are subject to a variety of global privacy laws, rules and regulations, and our failure to comply with them could harm our business, including but not limited to the GDPR. Under the EU regulation and notably the General Data Protection Regulation, including as implemented in the UK, (collectively, “GDPR”), penalties are imposed for the most serious personal data breaches of up to EUR 20 million or 4% of a noncompliant company’s annual global revenue, whichever is greater. The GDPR regulates the processing of personal data (including health data from clinical trials) and places certain obligations on the processing of personal data including ensuring the lawfulness of processing personal data (including obtaining valid consent of the individuals to whom the personal data relates, where applicable), the processing details disclosed to the individuals, the adequacy, relevance and necessity of the personal data collected, the retention of personal data, the sharing of personal data with third parties, the transfer of personal data out of the European Economic Area/UK to third countries including the U.S., contracting requirements (such as with clinical trial sites and vendors), the use of personal data in accordance with individual rights, the security of personal data and security breach/incident notifications. In order to comply with breach/incident notification requirements under the GDPR, the Company has to implement specific internal policies and processes for identifying, investigating, handling, mitigating and reporting personal data breaches, which implies substantial costs in resources and time.

Moreover, as we may rely on third parties to process personal information on our behalf as a processor; for example, in the context of the manufacturing of our drug candidates or for the conduct of clinical trials, we must contractually ensure that strict security measures, as well as appropriate reporting and cooperation obligations including, but not limited to an obligation to report any security incident to us without undue delay, are implemented, in order to allow us to comply with our own regulatory requirements under the GDPR.

With regard to transfer of personal data, the GDPR restricts the ability of companies to transfer personal data from the EU to the U.S. and other countries, which may adversely affect the ability of us to transfer personal data or otherwise may cause us to incur significant compliance costs for implementing lawful transfer mechanisms, conducting data transfer impact assessments, and implementing additional measures where necessary to ensure that personal data transferred are adequately protected in a manner essentially equivalent to the EU. The GDPR provides different transfer mechanisms we can use to lawfully transfer personal data from the EU to countries outside the EU. An example is relying on adequacy decisions of the European Commission, such as the EU-U.S. Data Privacy Framework. In July 2023, the European Commission adopted its adequacy decision for the EU-U.S. Data Privacy Framework. The adequacy decision concludes that the U.S. ensures an adequate level of protection (compared to that of the EU) for personal data transferred from the EU to U.S. companies participating in the EU-U.S. Data Privacy Framework. The adequacy decisions of the European Commission are subject to periodic reviews and may be amended or withdrawn. Another example of a lawful transfer mechanism is using the EU Standard Contractual Clauses as approved by the European Commission in June 2021. In order to use the EU Standard Contractual Clauses mechanism, the exporter and the importer must ensure that the importer may guarantee a level of personal data protection in the importing country that is essentially equivalent to that of the European Environment Agency. Compliance with EU data transfer obligations involves conducting transfer impact assessments, which includes documenting detailed analyses of data access and protection laws in the countries in which data importers are located, which can be costly and time consuming. Data importers must also expend resources in analyzing their ability to comply with transfer obligations, including implementing new safeguards and controls to further protect personal data.

Data protection authorities from the different European Member States and the UK may interpret the GDPR and applicable related national laws differently and impose requirements additional to those provided in the GDPR and that sit alongside the GDPR, as set out under applicable local data protection law. In addition, guidance on implementation and compliance practices may be issued, updated or otherwise revised. Enforcement by European and UK regulators is generally active, and failure to comply with the GDPR or applicable Member State/UK local law may result in fines, among other things (such as notices requiring compliance within a certain timeframe). Further, the UK Government may amend/update UK data protection law, which may result in changes to our business operations and potentially incur commercial cost.

If we fail to comply with global data protection laws and regulations, we could be subject to government enforcement actions (which could include civil or criminal penalties), private litigation and/or adverse publicity, which could negatively affect our operating results and business. We are subject to federal, state and foreign laws and regulations governing privacy and security of personal information, including health information. The legislative and regulatory landscape for privacy and data protection continues to evolve, and there has been an increasing focus on privacy and data protection issues that may affect our business. These laws may differ from each other in significant ways, thus complicating compliance efforts. Activities outside of the U.S. implicate local and national data protection standards, impose additional compliance requirements and generate additional risks of enforcement for noncompliance. The GDPR and other data protection, privacy and similar national, state/provincial and local laws may restrict the access, use, storage, disclosure and other processing activities concerning personal information abroad. Compliance with these laws is difficult, constantly evolving, time consuming, and requires a flexible privacy framework and substantial resources. Compliance efforts will likely be an increasing and substantial cost in the future. Failure to comply with such laws and regulations could result in government enforcement actions and create liability for us, including but not limited to imposition of significant penalties, private litigation (including class actions) and/or adverse publicity that could negatively affect our business.

The FTC also sets expectations for failing to take appropriate steps to keep consumers' personal information secure or failing to provide a level of security commensurate to promises made to individual about the security of their personal information (such as in a privacy notice) may constitute unfair or deceptive acts or practices in violation of Section 5(a) of the Federal Trade Commission Act ("FTC Act"). The FTC expects a company's data security measures to be reasonable and appropriate in light of the sensitivity and volume of consumer information it holds, the size and complexity of its business, and the cost of available tools to improve security and reduce vulnerabilities. Individually identifiable health information is considered sensitive data that merits stronger safeguards. With respect to privacy, the FTC also sets expectations that companies honor the privacy promises made to individuals about how the company handles consumers' personal information; any failure to honor promises, such as the statements made in a privacy policy or on a website, may also constitute unfair or deceptive acts or practices in violation of the FTC Act. The FTC has the power to enforce promises as it interprets them, and events that we cannot fully control, such as data breaches, may result in FTC enforcement. Enforcement by the FTC under the FTC Act can result in civil penalties or enforcement actions.

HIPAA imposes privacy and security obligations on covered entity healthcare providers, health plans and healthcare clearinghouses, as well as their "business associates;" i.e., certain persons or entities that create, receive, maintain, or transmit protected health information in connection with providing a specified service or performing a function on behalf of a covered entity. Although we are not directly subject to HIPAA, we could potentially be subject to criminal penalties if we, our affiliates or our agents knowingly receive individually identifiable health information maintained by a HIPAA-covered entity in a manner that is not authorized or permitted by HIPAA and subject to other civil and/or criminal penalties if we obtain, use or disclose information in a manner not permitted by other privacy and data security and consumer protection laws.

Our employees and independent contractors, including principal investigators, consultants, commercial collaborators, service providers and other vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could have an adverse effect on our results of operations. We are exposed to the risk that our employees and independent contractors, including principal investigators, consultants, any future commercial collaborators, service providers and other vendors may engage in misconduct or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct or other unauthorized activities that violate the laws and regulations of the FDA, EMA and other similar regulatory bodies, including those laws that require the reporting of true, complete and accurate information to such regulatory bodies; manufacturing standards; healthcare fraud and abuse, data privacy laws and other similar laws; or laws that require the true, complete and accurate reporting of financial information or data. Activities subject to these laws also involve the improper use or misrepresentation of information obtained in the course of clinical trials, the creation of fraudulent data in our preclinical studies or clinical trials, or illegal misappropriation of product, which could result in regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter misconduct by employees and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. In addition, we are subject to the risk that a person or government could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and financial results, including, without limitation, the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, disgorgements, possible exclusion from participation in governmental healthcare programs, individual imprisonment, other sanctions, contractual damages, reputational harm, diminished profits and future earnings and curtailment of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

If we fail to comply with applicable healthcare regulations, we could face substantial penalties, and our business, operations and financial condition could be adversely affected. Certain federal and state healthcare laws and regulations pertaining to fraud and abuse and patients' rights may be applicable to our business. We could be subject to healthcare fraud and abuse and patient privacy regulation by both the federal government and the states in which we conduct our business, without limitation. The laws that may affect our ability to operate include, but are not limited to:

- the federal Anti-Kickback Statute, which prohibits, among other things, knowingly and willfully soliciting, receiving, offering or paying any remuneration (including any kickback, bribe or rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce, or in return for, the referral of an individual for the furnishing or arranging for the furnishing of any item or service, or the purchase, lease, order, arrangement for, or recommendation of the purchase, lease, or order of any good, facility, item or service for which payment may be made, in whole or in part, under a federal healthcare program, such as the Medicare and Medicaid programs. A violation of the Anti-Kickback Statute may be established without proving actual knowledge of the statute or specific intent to violate it. The government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal civil False Claims Act;
- the federal civil False Claims Act, which imposes civil penalties against individuals or entities for, among other things, knowingly presenting, or causing to be presented, a false or fraudulent claim for payment of government funds that are false or fraudulent; knowingly making, using or causing to be made or used, a false record or statement material to false or fraudulent claim; conspiring to defraud the government by getting a false or fraudulent claim paid or approved by the government; or knowingly concealing or knowingly and improperly avoiding, decreasing or concealing an obligation to pay money to the federal government Actions under the False Claims Act may be brought by private individuals known as qui tam relators in the name of the government and to share in any monetary recovery;
- the Veterans Health Care Act of 1992 which requires manufacturers of "covered drugs" to offer them for sale to certain federal agencies, including but not limited to, the Department of Veterans Affairs, on the Federal Supply Schedule at a statutory discount, which requires compliance with applicable federal procurement laws and regulations, quarterly and annual price calculations, and subjects manufacturers to contractual remedies as well as administrative civil sanctions;
- the statute and regulations regarding the Tricare Retail Pharmacy Program, which require manufacturers of "covered drugs" to pay quarterly rebates to the Defense Health Agency for utilization of covered drugs dispensed to Tricare beneficiaries through Tricare retail network pharmacies;
- HIPAA, which created new federal criminal statutes that prohibits, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third party payors, knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statements or representations in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters;
- the federal Health Information Technology for Economic and Clinical Health Act of 2009 and its implementing regulations, which impose privacy and security requirements on entities covered by HIPAA, including healthcare providers, health plans and healthcare clearinghouses as well as their respective business associates that create, receive, maintain, or transmit protected health information in connection with providing a specified service or performing a function on behalf of a covered entity;
- the federal Physician Payment Sunshine Act, created under the Patient Protection and Affordable Care Act ("ACA"), and its implementing regulations, which require manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to the United States Department of Health and Human Services information related to payments or other transfers of value made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), certain other advanced practitioners and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members, with data collection required reporting to CMS by the 90th day following each calendar year;
- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers;
- the Foreign Corrupt Practices Act, a U.S. law that regulates certain financial relationships with foreign government officials (which could include, for example, certain medical professionals); and
- state law equivalents of the federal laws, such as anti-kickback, false claims, consumer protection and unfair competition laws which may apply to our business practices, including but not limited to, research, distribution, sales and marketing arrangements as well as submitting claims involving healthcare items or services reimbursed by any third-party payors, including commercial insurers, and state laws governing the privacy and security of health information in certain circumstances many of which differ from each other in significant ways, with differing effect. Additionally, the compliance environment is changing, with some states mandating implementation of compliance programs, compliance with industry ethics codes and spending limits, and other states requiring reporting to state governments or the banning of certain gifts, compensation and other remuneration to physicians. Still other laws require licensing of sales representatives. Many of these laws provide for penalties for noncompliance. The shifting regulatory environment, along with the requirement to comply with multiple jurisdictions with different compliance and/or reporting requirements, increases the possibility that a company may inadvertently run afoul of one or more laws.

As disclosed in our previous annual reports on Form 10-K, from February 2006 until September 2022, we engaged a physician to serve as our medical director. The physician was the head of a physician practice that was a top customer of ours. As medical director, the physician advised the our Board of Directors and management, provided technical advice related to product development and research and development, provided internal training to our sales staff and provided professional training to our sales staff and to other physicians, among other things. In February 2023, we were contacted by the Office of the United States Attorney for the Northern District of California (the "Office"), which stated that it was investigating whether our payments to the medical director may have violated the False Claims Act and the Anti-Kickback Statute. The letter invited us to produce documents voluntarily or receive a civil investigative demand requiring the production of documents. We promptly commenced an internal review of the matter. In mid-April, we voluntarily produced documents in response to the Office's request. In July 2023, we were informed by the California Department of Insurance (the "CA DOI") that the CA DOI is conducting a substantially similar investigation to the one undertaken by the Office. The CA DOI requested the same materials we previously provided to the Office, and we complied with this request.

In September 2023, the Office informed us that there was a qui tam action underlying its investigation, and that the Office had declined to intervene in that action, and that the CA DOI similarly would not pursue any action against us regarding those same qui tam allegations. The qui tam action was originally filed on October 11, 2022, and unsealed on or about August 11, 2023. In November 2023, the complainant filed a notice to dismiss the complaint without prejudice and the United States and the State of California both consented to dismissal without prejudice. In January 2024, the court granted the dismissal without prejudice.

Governmental regulations outside the U.S. have become increasingly stringent and more common, and we may become subject to more rigorous regulation by governmental authorities in the future. Penalties for a company's noncompliance with governmental regulation could be severe, including fines and revocation or suspension of a company's business license, mandatory price reductions and criminal sanctions. Any governmental law or regulation imposed in the future may have a material adverse effect on us.

Because of the breadth of these various fraud and abuse laws, it is possible that some of our business activities could be subject to challenge under one or more of such laws. Such a challenge could have material adverse effects on our business, financial condition, and operations. In the event governmental authorities conclude that if our business practices do not comply with any of the laws described above or the other governmental regulations to which we, our distributors or our customers are subject, the government may impose sanctions under these laws, which are potentially significant and may include civil penalties, damages, fines, exclusion from Medicare, Medicaid and other government programs, criminal fines and imprisonment, and the curtailment or restructuring of our operations. If we are required to obtain permits or licensure under these laws that we do not already possess, we may become subject to substantial additional regulation or incur significant expense. Any penalties, damages, fines, curtailment or restructuring of our operations would adversely affect our ability to operate our business and our financial results. The risk of our being found in violation of these laws is increased by the fact that many of them have not been fully or clearly interpreted by the regulatory authorities or the courts, and their provisions are subject to a variety of interpretations and additional legal or regulatory change. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses, divert our management's attention from the operation of our business and damage our reputation. Moreover, achieving and sustaining compliance with applicable federal and state privacy, security and fraud laws may prove costly.

We are subject to U.S. and foreign anti-corruption and anti-money laundering laws with respect to our operations and noncompliance with such laws can subject us to criminal and/or civil liability and harm our business . We are subject to the U.S. Foreign Corrupt Practices Act of 1977, as amended, or the FCPA, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the USA PATRIOT Act, and possibly other state and national anti-bribery and anti-money laundering laws in countries in which we conduct activities. Anti-corruption laws are interpreted broadly and prohibit companies and their employees, agents, third-party intermediaries, joint venture partners and collaborators from authorizing, promising, offering, or providing, directly or indirectly, improper payments or benefits to recipients in the public or private sector. We engage third-party investigators, CROs and other consultants to design and perform preclinical studies of our drug candidates and will do the same for any clinical trials. Also, once a drug candidate has been approved and commercialized, we may engage third-party intermediaries to promote and sell our programs abroad and/or to obtain necessary permits, licenses and other regulatory approvals. We or our third-party intermediaries may have direct or indirect interactions with officials and employees of government agencies or state-owned or affiliated entities. We will be held liable for the corrupt or other illegal activities of these third-party intermediaries, our employees, representatives, contractors, collaborators, partners, and agents, even if we do not explicitly authorize or have actual knowledge of such activities. Our international suppliers create the risk of unauthorized payments or offers of payments by one of our employees, consultants, sales agents, or distributors, because these parties are not always subject to our control.

Noncompliance with anti-corruption and anti-money laundering laws could subject us to whistleblower complaints, investigations, sanctions, settlements, prosecution, other enforcement actions, disgorgement of profits, significant fines, damages, other civil and criminal penalties or injunctions, suspension and/or debarment from contracting with certain persons, the loss of export privileges, reputational harm, adverse media coverage and other collateral consequences. If any subpoenas, investigations, or other enforcement actions are launched, or governmental or other sanctions are imposed, or if we do not prevail in any possible civil or criminal litigation, our business, results of operations and financial condition could be materially harmed. In addition, responding to any action will likely result in a materially significant diversion of management's attention and resources and significant defense and compliance costs and other professional fees. In certain cases, enforcement authorities may even cause us to appoint an independent compliance monitor which can result in added costs and administrative burdens.

Healthcare reform measures could hinder our programs' commercial success. In both the United States and certain foreign jurisdictions there have been, and we anticipate there will continue to be, a number of legislative and regulatory changes to the healthcare system that could impact our ability to sell our program profitably. In the United States, the ACA and the Health Care and Education Affordability Reconciliation Act of 2010 (together "the law") provide for a number of healthcare policy changes that are or will be applicable to us. However, there are many programs and requirements under the law for which the consequences are not fully understood, and it is unclear what the full impacts will ultimately be from the law. The law also focuses on a number of Medicare provisions aimed at improving quality and decreasing costs. It is uncertain at this point what negative unintended consequences these provisions will have on patient access to new technologies. The Medicare provisions include value-based payment programs, increased funding of comparative effectiveness research, reduced hospital payments for avoidable readmissions and hospital acquired conditions, and pilot programs to evaluate alternative payment methodologies that promote care coordination (such as bundled physician and hospital payments). Additionally, the law includes a reduction in the annual rate of inflation for Medicare payments to hospitals that began in 2011 and the establishment of an independent payment advisory board to recommend ways of reducing the rate of growth in Medicare spending.

Our ability or the ability of our collaborators to commercialize any of our program candidates that we successfully develop may depend, in part, on the extent to which government health administration authorities, private health insurers and other organizations will reimburse consumers for the cost of these programs. These third parties are increasingly challenging both the need for and the price of new drug products. Significant uncertainty exists as to the reimbursement status of newly approved therapeutics. Adequate third-party reimbursement may not be available for our program candidates to enable us or our collaborators to maintain price levels sufficient to realize an appropriate return on our investment in research and product development.

The potential pricing and reimbursement environment for VMT-α-NET, VMT01 and our other program candidates and any future programs may change in the future and become more challenging due to, among other reasons, policies advanced by the current or any new presidential administration, federal agencies, healthcare legislation passed by Congress, or fiscal challenges faced by all levels of government health administration authorities.

In the EU, an important and foreseeable example of reform measures is the forthcoming EU pharmaceutical legislation revision. In April 2023, the European Commission published a proposal to reform the current European pharmaceutical legislative framework. The proposal intends to reduce the regulatory data protection and orphan market exclusivity periods. It is currently uncertain if the proposal will be adopted in its current form, and it is uncertain if and when the revised legislation would enter into force.

The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to make and implement healthcare reforms may adversely affect:

- our ability to set a price we believe is fair for our program;
- our ability to generate revenues and achieve or maintain profitability;
- the availability of capital; and
- our ability to obtain timely approval of any future program modifications.

Centers for Medicare & Medicaid Services ("CMS") implemented regulations under the ACA related to disclosure of payments made by manufacturers to physicians and teaching hospitals. Because we manufacture programs that are covered by the regulations, all payments that we make to physicians and teaching hospitals are subject to this reporting requirement even if the payment relates to a program that is not considered a covered program. The tracking and reporting of these payments could have an adverse impact on our business and/or consolidated results of operations and financial condition and on our relationships with customers and potential customers.

Since its enactment, there have been judicial challenges, as well as efforts by Congress to modify, and agencies to alter the implementation of, certain aspects of the ACA and related laws. In the future, Congress may consider other legislation to modify elements of the ACA or related laws or enact other healthcare reform measures, agencies may further alter their implementation of elements of the ACA or related laws or implement other such measures, and other judicial challenges to elements of the ACA or related law or other healthcare reform measures may be brought. The extent to which any such changes may impact our business or financial condition is uncertain.

State legislatures also have shown significant interest in implementing cost-containment programs or policies to limit the growth of healthcare costs, including price controls, restrictions on reimbursement and requirements for substitution of generic products for branded prescription drugs. For example, some states have established Prescription Drug Affordability Boards (or similar entities) to review high-cost drugs and, in some cases, set upper payment limits.

We expect that these and other healthcare reform measures in the future may result in more rigorous coverage criteria or lower reimbursement, or in additional downward pressure on the price that we receive for any approved product. Any reduction in reimbursement from Medicare or other government-funded programs may result in a similar reduction in payments from private payers. The implementation of cost containment measures or other healthcare reforms may hinder us in generating revenue, attaining profitability or commercializing our drugs, once marketing approval is obtained.

If, once we offer commercialized products, we participate in the Medicaid Drug Rebate Program and other governmental pricing programs, failure to comply with obligations under these programs could result in additional price concession requirements, penalties, sanctions and fines, which could have a material adverse effect on our business, operations and financial condition. Under the Medicaid Drug Rebate Program, a participating manufacturer is required to pay a rebate to each state Medicaid program for its covered outpatient drugs that are dispensed to Medicaid beneficiaries and paid for by the state Medicaid program as a condition of having federal funds being made available for drugs under Medicaid and Medicare Part B. Those rebates are based on pricing data reported by the manufacturer on a monthly and quarterly basis to CMS. These data include the average manufacturer price and, in the case of innovator products, the best price for each drug, which, in general, represents the lowest price available from the manufacturer to any wholesaler, retailer, provider, health maintenance organization, nonprofit entity, or governmental entity in the U.S. in any pricing structure, calculated to include all sales and associated rebates, discounts and other price concessions. If we fail to pay the required rebate amount or report pricing data on a timely basis, we may be subject to civil monetary penalties and/or termination from the Medicaid Drug Rebate program. Additionally, civil monetary penalties can be applied if we are found to have knowingly submitted any false price or product information to the government, if we fail to submit the required price data on a timely basis, or if we misclassify or misreport product information. CMS could also decide to terminate any Medicaid drug rebate agreement, in which case federal payments may not be available under Medicaid or Medicare Part B for our covered outpatient drugs, if commercialized. Our failure to comply with such price reporting and rebate payment requirements could negatively impact our financial results.

Federal law requires that a manufacturer also participate in the 340B Drug Pricing program in order for federal funds to be available for the manufacturer's drugs under Medicaid and Medicare Part B. The 340B program requires participating manufacturers to agree to charge no more than the 340B "ceiling price" for the manufacturer's covered outpatient drugs to a specified "covered entities," including community health centers and other entities that receive certain federal grants, as well as certain hospitals that serve a disproportionate share of low-income patients. The 340B ceiling price is calculated using a statutory formula, which is based on the average manufacturer price and rebate amount for the covered outpatient drug as calculated under the Medicaid Drug Rebate Program. If we are found to have knowingly and intentionally charged 340B covered entities more than the statutorily mandated ceiling price for any of our commercialized products, we could be subject to significant civil monetary penalties and/or such failure could be grounds for the Health Resources and Services Administration to terminate our agreement to participate in the 340B program, in which case our covered outpatient drugs, once commercialized, would no longer be eligible for federal payment under the Medicaid or Medicare Part B program.

Further, the IRA established a Medicare Part B inflation rebate scheme and a drug price negotiation program, with the first negotiated prices to take effect in 2026. Manufacturers may be subject to civil monetary penalties for certain violations of the negotiation and inflation rebate provisions and an excise tax during any noncompliance period under the negotiation program.

In order to be eligible to have its products paid for with federal funds under the Medicaid and Medicare Part B programs and purchased by the Department of Veterans Affairs ("VA"), Department of Defense ("DoD"), Public Health Service, and Coast Guard (the "Big Four agencies") and certain federal grantees, a manufacturer is required to participate in the VA Federal Supply Schedule ("FSS") pricing program, established under Section 603 of the Veterans Health Care Act of 1992. Under this program, the manufacturer is obligated to make its covered drugs available for procurement on an FSS contract and charge a price to the Big Four agencies that is no higher than the Federal Ceiling Price ("FCP"), which is a price calculated pursuant to a statutory formula. The FCP is derived from a calculated price point called the "non-federal average manufacturer price" ("Non FAMP"), which the manufacturer calculates and reports to the VA on a quarterly and annual basis. Pursuant to applicable law, knowing provision of false information in connection with a Non FAMP filing can subject a manufacturer to significant penalties for each item of false information. The FSS contract also contains extensive disclosure and certification requirements. If we overcharge the government in connection with the FSS contract, whether due to a misstated FCP or otherwise, we will be required to refund the difference to the government. Failure to make necessary disclosures and/or to identify contract overcharges can result in allegations against us under the False Claims Act and other laws and regulations. Unexpected refunds to the government, and any response to government investigation or enforcement action, would be expensive and time consuming, and could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Under Section 703 of the National Defense Authorization Act for FY 2008, the manufacturer is required to pay quarterly rebates to DoD on utilization of its innovator products that are dispensed through DoD's Tricare network pharmacies to Tricare beneficiaries. The rebates are calculated as the difference between the annual Non FAMP and FCP for the calendar year that the product was dispensed. A manufacturer that fails to comply with the requirements of the Tricare Retail Pharmacy Rebate Program may have its products excluded from Tricare retail pharmacies and/or the Tricare pharmacy benefits program; may be subject to interest, penalties and administrative fees; and, depending on the actions of the manufacturer, may be subject to allegations under the False Claims Act and other laws and regulations.

In addition, some states have established price reporting and related requirements, to which certain penalties attach. These state programs, in addition to the Medicaid, 340B, FSS, and Tricare programs, could adversely affect the success of any products that we commercialize in the future. If we fail to comply with any applicable obligations under governmental pricing programs that we participate in, we could be subject to additional reimbursement requirements, significant civil monetary penalties, sanctions and fines, and those could negatively impact our business, financial condition, results of operations and growth prospects.

Pricing and rebate calculations are complex, vary across products and programs, and are often subject to interpretation by the manufacturer, governmental agencies, and courts. A manufacturer that becomes aware that its Medicaid reporting for a prior quarter was incorrect, or has changed as a result of recalculation of the pricing data, is obligated to resubmit corrected data up to three years after those data originally were due. Restatements and recalculations increase the costs for complying with the laws and policies governing the Medicaid Drug Rebate program and could result in an overage or underage in our rebate liability for past quarters. They also may affect the 340B ceiling price and therefore liability under the 340B program.

Additionally, if we offer cost-sharing assistance to patients, pharmacy benefit manager ("PBM") "accumulator" programs (including copayment "maximizer" programs) may negatively affect our financial results.

We may be unable to adequately protect or enforce our intellectual property rights or secure rights to third-party patents. Our ability and the abilities of our distributors to obtain and maintain patent and other protection for our program will affect our success. We are assigned, have rights to, or have exclusive licenses to patents and patents pending in the U.S. and numerous foreign countries. The patent positions of biopharmaceutical companies can be highly uncertain and involve complex legal and factual questions. Our patent rights may not be upheld in a court of law if challenged. Our patent rights may not provide competitive advantages for our program and may be challenged, infringed upon, or circumvented by our competitors. We cannot patent our program in all countries or afford to litigate every potential violation worldwide.

Because of the large number of patent filings in the biotechnology field, our competitors may have filed applications or been issued patents and may obtain additional patents and proprietary rights relating to our program or processes competitive with or similar to ours. We cannot be certain that U.S. or foreign patents do not exist or will not be issued that would harm our ability to commercialize our future program candidates.

Pending and future patent litigation could be costly and disruptive and may have an adverse effect on our financial condition and results of operations. We operate in an industry characterized by extensive patent litigation. Potential patent claims include challenges to the coverage and validity of our patents on our program or processes as well as allegations that our program infringes patents held by competitors or other third parties. A loss in any of these types of cases could result in a loss of patent protection or the ability to market our program, which could lead to a significant loss of sales, or otherwise materially affect future results of operations.

Our commercial success will depend in part on not infringing the patents or violating the other proprietary rights of third parties. Intellectual property litigation is expensive and complex, and outcomes are difficult to predict. Any pending or future patent litigation may result in significant damage awards, including treble damages under certain circumstances, and injunctions that could prevent the manufacture and sale of an affected program or force us to make significant royalty payments in order to continue selling the affected program. At any given time, we may be involved as either a plaintiff or a defendant in a number of patent infringement actions, the outcomes of which may not be known for prolonged periods of time. As a healthcare supplier, we can expect to face claims of patent infringement in the future. A successful claim of patent or other intellectual property infringement against us could adversely affect our results of operations and financial condition.

Our success also depends upon our ability and the ability of any of our future collaborators to develop, manufacture, market and sell our program candidates without infringing the proprietary rights of third parties. Numerous United States and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are developing programs, some of which may be directed at claims that overlap with the subject matter of our intellectual property. Because patent applications can take many years to issue, there may be currently pending applications, unknown to us, which may later result in issued patents that our program candidates or proprietary technologies may infringe. Similarly, there may be issued patents relevant to our program candidates of which we are not aware.

There is a substantial amount of litigation involving patent and other intellectual property rights in the biotechnology and biopharmaceutical industries generally. If a third party claims that we or any of our licensors, suppliers or collaborators infringe the third party's intellectual property rights, we may have to:

- obtain licenses, which may not be available on commercially reasonable terms, if at all;
- abandon an infringing program candidate or redesign our programs or processes to avoid infringement;
- pay substantial damages, including the possibility of treble damages and attorneys' fees, if a court decides that the program or proprietary technology at issue infringes on or violates the third party's rights;
- pay substantial royalties, fees and/or grant cross licenses to our technology; and/or
- defend litigation or administrative proceedings which may be costly whether we win or lose, and which could result in a substantial diversion of our financial and management resources.

The value of our granted patents, and our patents pending, is uncertain. Although our management strongly believes that our patents and anticipated future patent applications, which have not yet been filed, have significant value, we cannot be certain that other like-kind processes may not exist or be discovered, that any of these patents is enforceable, or that any of our pending or future patent applications will result in issued patents.

Failure to comply with government regulations could harm our business . As a targeted alpha therapy manufacturer, we are subject to extensive, complex, costly, and evolving governmental rules, regulations and restrictions administered by the FDA, the FAA and other federal and state agencies, and by governmental authorities in other countries. Compliance with these laws and regulations is expensive and time consuming, and changes to or failure to comply with these laws and regulations, or adoption of new laws and regulations, could adversely affect our business.

In the United States, as a manufacturer of targeted alpha therapy utilizing radioactive by-product material, we are subject to extensive regulation by federal, state and local governmental authorities, such as the FDA and the NRC, to ensure such products are safe and effective. Regulations promulgated by the FDA under the U.S. Food, Drug and Cosmetic Act, govern the design, development, testing, manufacturing, packaging, labeling, distribution, marketing and sale, post-market surveillance, repairs, replacements, and recalls of our program candidates.

The FAA has authority to regulate, through its Office of Hazardous Materials Safety, the offering for shipment of hazardous materials onboard aircraft, including radioactive materials of the type marketed by us. The FAA is also responsible for enforcement of hazardous materials regulations for air transportation promulgated by the United States Pipeline and Hazardous Materials Safety Administration. Because we ship hazardous materials on flights in the U.S., we are subject to these regulations, including periodic audit and, if applicable, enforcement action by the FAA. As they apply to us, the FAA regulations concern the packaging and labeling of hazardous materials. If we fail to comply with these regulations, we could face civil or criminal penalties. The NRC regulates the possession, use, and disposal of radioactive byproduct material as well as the manufacture of radioactive sealed sources to ensure compliance with state and federal laws and regulations. Our targeted alpha therapy programs are subject to these regulations.

In addition to FDA-required market approvals for our program candidates, our manufacturing operations are required to comply with the FDA's cGMP regulations, which address requirements for a company's quality program such as management responsibility, good manufacturing practices, product and process design controls, and quality controls used in manufacturing. For example, the manufacturing facility we recently acquired in Somerset, New Jersey is a cGMP compliant facility, and we intend to utilize the facility to manufacture clinical supply of high quality ^{203}Pb-labeled tumor-specific peptides to visualize and diagnose tumors, and ^{212}Pb-labeled radiopharmaceuticals to treat target tumors with TAT. We will need to ensure that the facility, including our three cGMP suites, continue to meet the standards necessary to be a cGMP-compliant facility.

Compliance with applicable regulatory requirements is monitored through periodic inspections by the FDA Office of Regulatory Affairs. We anticipate both announced and unannounced inspections by the FDA. Such inspections could result in noncompliance reports (Form 483) which, if not adequately responded to, could lead to enforcement actions. The FDA can institute a wide variety of enforcement actions ranging from public warning letters to more severe sanctions such as fines; injunctions; civil penalties; recall of our program; operating restrictions; suspension of production; non-approval or withdrawal of pre-market clearances for new programs or existing programs and criminal prosecution. There can be no assurance that we will not incur significant costs to comply with these regulations in the future or that the regulations will not have a material adverse effect on our business, financial condition and results of operations.

In addition to the ACA, various healthcare reform proposals have also emerged at the state level. Like the ACA, these proposals could reduce medical procedure volumes and impact the demand for our program or the prices at which we sell our program. The impact of these proposals could have a material adverse effect on our business and/or consolidated results of operations and financial condition.

Any cuts to Medicare reimbursement which affect our program could have a material adverse effect on our business and/or our consolidated results of operations and financial condition.

The marketing of our program in foreign countries will, in general, be regulated by foreign governmental agencies similar to the FDA. Foreign regulatory requirements vary from country to country. The time and cost required to obtain regulatory approvals could be longer than that required for FDA clearance in the United States and the requirements for licensing a program in another country may differ significantly from FDA requirements. We will rely, in part, on foreign distributors to assist us in complying with foreign regulatory requirements. We may not be able to obtain these approvals without incurring significant expenses or at all, and the failure to obtain these approvals would prevent us from selling our program in the applicable countries. This could limit our sales and growth.

Our business exposes us to product liability claims. We face an inherent risk of product liability exposure based on our previously marketed products, the use of VMT-α-NET, VMT01 and our other program candidates in human clinical trials, or, if obtained, following their marketing approval and commercialization. Claims could be brought against us if use or misuse of one of our program candidates causes, or merely appears to have caused, personal injury or death. Although we have and intend to maintain product liability insurance relating to our clinical trials, our coverage may not be sufficient to cover claims that may be made against us, and we may be unable to maintain such insurance. Any claims against us, regardless of their merit, could severely harm our financial condition, strain our management and other resources or destroy the prospects for commercialization of the program which is the subject of any such claim. We are unable to predict if we will be able to obtain or maintain product liability insurance for any programs that may be approved for marketing. Additionally, we have entered into various agreements where it indemnifies third parties for certain claims relating to the testing and use of our program candidates. These indemnification obligations may require us to pay significant sums of money for claims that are covered by these indemnifications.

We cannot predict all of the possible harms or side effects that may result from the use of our programs and, therefore, the amount of insurance coverage we currently hold, or that we or our collaborators may obtain, may not be adequate to protect us from any claims arising from the use of its programs that are beyond the limit of its insurance coverage. If we cannot protect against potential liability claims, we or our collaborators may find it difficult or impossible to commercialize our programs, and we may not be able to renew or increase our insurance coverage on reasonable terms, if at all. The marketing, sale and use of our programs and our planned future programs could lead to the filing of product liability claims against us if someone alleges that our programs failed to perform as designed. A product liability or professional liability claim could result in substantial damages and be costly and time consuming for us to defend.

Any product liability or professional liability claim brought against us, with or without merit, could increase our insurance rates or prevent us from securing insurance coverage. Additionally, any product liability lawsuit could damage our reputation, result in the recall of programs, or cause current partners to terminate existing agreements and potential partners to seek other partners, any of which could impact our results of operations.

Although we believe that as of the date of this Annual Report, we have adequate insurance to address anticipated potential liabilities associated with product liability, any unforeseen product liability exposure in excess of, or outside the scope of, such insurance coverage could adversely affect our financial condition and operating results. Any such claim brought against us, with or without merit, could result in significant damage to our business. Insurance coverage is expensive and difficult to obtain and, although we currently have a $10 million policy, in the future we may be unable to obtain or renew coverage on acceptable terms, if at all. If we are unable to obtain or renew sufficient insurance at an acceptable cost or if a successful product liability claim is made against us, whether fully covered by insurance or not, our business could be harmed. The FDA's reporting regulations require us to report any incident in which our program may have caused or contributed to a death or serious injury. Any required filing could result in an investigation of our program and possibly subsequent regulatory action against us if it is found that one of our programs caused the death or serious injury of a patient.

Our business involves environmental risks. Our business involves the controlled use of hazardous materials, chemicals, biological and radioactive compounds that could be dangerous to human health and safety or could contaminate the environment. Manufacturing is extremely susceptible to product loss due to radioactive, microbial, or viral contamination; material or equipment failure; vendor or operator error; or the very nature of a radioactive product's short half-life. Although we believe that our procedures for handling, storing, using, labeling and disposing of such materials comply with state and federal standards, if we fail to comply with such standards, we could face substantial fines, restrictions on our operations or possible revocation of our authority to conduct some of our operations. In addition, environmental, health and safety requirements have become, and may continue to become, increasingly stringent, and our costs may increase as a result. New or revised laws and regulations or new interpretations of existing laws and regulations, could affect the operation of our business or result in significant additional expense and operating restrictions on us.

Moreover, regardless of our compliance, there will always be some risk of accidental contamination or injury for which we could be held liable. Contamination may cause the closure of the manufacturing facility for an extended period of time. By law, radioactive materials and hazardous wastes may only be disposed of at approved facilities. We use commercial disposal contractors for such disposal as needed.

We will be responsible for any radioactive waste produced during our ownership of the facility for our discontinued brachytherapy operations. We will incur costs related to the clean-up and disposal of hazardous materials, chemicals, and radioactive components of this facility. While management believes it has reserved a sufficient amount of funds for this process, we may need more than the amount of the asset retirement obligation to meet the lease requirements and to receive clearance from the Washington State Department of Health. We may incur substantial costs related to the disposal of these materials.

In addition, certain environmental laws and regulations impose liability on current or previous owners or operators of real property for the costs of investigation, removal or remediation of releases of hazardous substances or petroleum products at or from those properties. Further, we may be liable if we arrange for the treatment or disposal of hazardous substances, without regard to whether we complied with environmental laws in doing so. Liability for investigative, removal and remedial costs under certain U.S. federal and state laws are retroactive, strict, and joint and several. In addition to cleanup actions brought by governmental authorities, private parties could bring claims for cleanup, personal injury, property damage, or natural resource damage due to the presence of, or exposure to, hazardous substances. Further, the government could impose liens on, or restrict our operations at, any contaminated properties. The ultimate of the foregoing and timing of future cash outflows is difficult to predict, given the uncertainties regarding the extent of any injuries, damages or required cleanup, the interpretation of applicable laws and regulations, and alternative cleanup methods.

In April 2023, the European Commission published a proposal to reform the current European pharmaceutical legislative framework. This proposal imposes stricter rules regarding the 'Environmental Risk Assessment' that pharmaceutical manufacturers are obliged to perform. Under the new legislation, noncompliance with the (extensive) Environmental Risk Assessment requirements can result in the withdrawal or refusal of a marketing authorization.

Fluctuations in insurance cost and availability could adversely affect our profitability or our risk management profile. We hold a number of insurance policies, including product liability insurance, directors' and officers' liability insurance, and workers' compensation insurance. If the costs of maintaining adequate insurance coverage increase significantly in the future, our operating results could be materially adversely affected. Likewise, if any of our current insurance coverage should become unavailable to us or become economically impractical, we would be required to operate our business without indemnity from commercial insurance providers. If we operate our business without insurance, we could be responsible for paying claims or judgments against us that would have otherwise been covered by insurance, which could adversely affect our results of operations or financial condition.

Risks Related to Ownership of Shares of Common Stock and Public Company Status

The concentration of our common share ownership will likely limit the ability of the other shareholders to influence corporate matters. As of March 22, 2024, executive officers, directors, 5% or greater shareholders, and their respective affiliated entities beneficially owned, in the aggregate, approximately 137,810,620 of our outstanding common shares. Lantheus Alpha Therapy, LLC, a Delaware limited liability company and wholly owned subsidiary of Lantheus Holdings, Inc. ("Lantheus") owned approximately 19.90% of our outstanding common shares as of March 22, 2024.

As a result, Lantheus can significantly influence the outcome of matters requiring shareholder approval, including the election of directors, amendments of our organizational documents, or approval of any merger, sale of assets or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common shares that you may feel are in your best interest. The interests of Lantheus may not always coincide with your interests or the interests of other shareholders and they may act in a manner that advances their best interests and not necessarily those of other shareholders, including seeking a premium value for their common shares. These actions might affect the prevailing market price for our common shares. In addition, Lantheus and certain of our other principal shareholders that have held their shares for several years may be more interested in selling our company to an acquirer than other investors, or they may want us to pursue strategies that deviate from the interests of other shareholders. Such concentration of ownership control may also:

- delay, defer or prevent a change in control;
- entrench our management and/or the board of directors; or
- impede a merger, consolidation, takeover or other business combination involving us that other shareholders may desire.

Our stock price has been and may continue to be volatile. The market price of our common stock has experienced fluctuations and is likely to fluctuate significantly in the future. For example, during 2023 and through March 22, 2024, the closing price of one share of our common stock reached a high of $1.34 and a low of $0.21. There is generally significant volatility in the market prices and limited liquidity of securities of companies which have failed to show profits. Contributing to this volatility are various events that can affect our stock price in a positive or negative manner. These events include, but are not limited to: governmental approvals or refusals to approve drug products; delays in or termination of clinical trials; clinical data readouts from our clinical trials; market acceptance of our program candidates; announcements by competitors of new program candidates or technologies; litigation involving us or our industry; developments or disputes concerning our patents or other proprietary rights; changes in the structure of healthcare payment systems; departure of key personnel; future sales of our securities; fluctuations in our financial results or those of companies that are perceived to be similar to us; investors' general perception of us; and general economic, industry and market conditions. In addition, the securities of many preclinical biotechnology companies, including us, have historically been subject to extensive price and volume fluctuations that may affect the market price of their common stock. If any of these events occur, it could cause our stock price to rise or fall. 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 price of our common stock may be adversely affected by the future issuance and sale of shares of our common stock or other equity securities. Sales o a substantial number of shares of our common stock or other equity securities, or the perception by the market that those sales could occur, could cause the market price of our common stock to decline or could make it more difficult for us to raise funds through the sale of equity in the future. We have previously entered into the Sales Agreement, pursuant to which, from time to time, we may offer and sell shares of our common stock with an aggregate offering price of up to $50.0 million under an "at-the-market" offering program. As of March 22, 2024, we have common stock that we may issue and sell for gross proceeds of up to $49.6 million that remain available under our at-the-market offering program. Future issuances of our common stock or our other equity securities could further depress the market for our common stock. We expect to continue to incur commercialization, drug development and selling, general and administrative costs, and to satisfy our funding requirements, we may need to sell additional equity securities. The sale or the proposed sale of substantial amounts of our common stock or our other equity securities may adversely affect the market price of our common stock and our stock price may decline substantially. Our stockholders may experience substantial dilution and a reduction in the price that they are able to obtain upon sale of their shares. New equity securities issued may have greater rights, preferences or privileges than our existing common stock.

We do not expect to pay any dividends for the foreseeable future. We do not anticipate paying any dividends to our stockholders for the foreseeable future. Stockholders must be prepared to rely on sales of their common stock after price appreciation to earn an investment return, which may never occur. Any determination to pay dividends in the future will be made at the discretion of our Board of Directors and will depend on our results of operations, financial conditions, contractual restrictions, restrictions imposed by applicable laws and other factors that our Board deems relevant.

Our business could be negatively impacted by corporate citizenship and sustainability matters. There is an increased focus from certain investors, employees and other stakeholders concerning corporate citizenship and sustainability matters, which include environmental concerns and social investments. We could fail to meet, or be perceived to fail to meet, the expectations of these certain investors, employees and other stakeholders concerning corporate citizenship and sustainability matters, thereby resulting in a negative impact to our business.

Social media platforms have significantly altered the dynamics of corporate communications and present risks and challenges, some of which are, and may continue to be unknown to us. As social media continues to expand, it also presents us with new challenges. The inappropriate or unauthorized use of our confidential information on media platforms could cause brand damage or information leakage, which would cause legal or regulatory issues for us. In addition, negative, inappropriate or inaccurate posts or comments about us or our program candidates on social media internet sites could quickly and irreversible damage our reputation, image and goodwill. Further, the accidental or intentional disclosure of non-public sensitive information by our workforce or others through media channels could lead to information loss or could lead to legal or regulatory issues for us. In addition, there is a risk of a fraudulent third-party hijacking our information technology systems without our knowledge to access our confidential documents or to use our company name, logo or brand without authorization. If any of these events were to occur or we otherwise fail to comply with applicable regulations, we could incur liability, face restrictive regulatory actions or incur other harm and costs to our business.

ITEM 1B – UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 1C – CYBERSECURITY

We are increasingly dependent on sophisticated software applications, computing, and cloud infrastructure to conduct key operations. We depend on both our own systems, networks, and technology as well as the systems, networks and technology of our contractors, consultants, vendors and other business partners.

Cybersecurity Program

Given the importance of cybersecurity to our business, we maintain a cybersecurity program to support both the effectiveness of our systems and our preparedness for information security risks. This program includes a number of administrative, physical and technical safeguards, including contracted 24/7/365 Security Operating Center monitoring services and alerting systems for internal and external threats; regular evaluations of our cybersecurity program, including periodic internal and external audits; and industry benchmarking. We also require cybersecurity trainings when onboarding new employees and conduct cybersecurity awareness testing for our employees. Our program leverages industry frameworks, including the National Institute of Standards and Technology Cybersecurity Framework to strengthen our program effectiveness and reduce cybersecurity risks.

We use a risk-based approach with respect to our use and oversight of third-party service providers. We use various means to assess cyber risks related to our third-party service providers, including conducting due diligence in connection with onboarding new vendors and ongoing due diligence with key third-party vendors. We also seek to collect and assess cybersecurity audit reports and other supporting documentation when available where applicable as part of our oversight of third-party providers.

Process for Assessing, Identifying and Managing Material Risks from Cybersecurity Threats

In the event of a cybersecurity incident, we maintain a regularly tested cybersecurity incident response program. Pursuant to the program and its escalation protocols, designated personnel are responsible for handling and managing potential cybersecurity incidents.

We have relationships with a number of third-party service providers to assist with cybersecurity incident containment and remediation efforts.

Governance

Management Oversight

The controls and processes employed to assess, identify and manage material risks from cybersecurity threats are implemented and overseen by our Chief Financial Officer (“CFO”) in connection with our managed service provider. Our managed service provider is a System and Organization Controls ("SOC") 2 accredited IT services firm which completes required annual audits, providing evidence of ongoing compliance to maintain the SOC 2 designation. They have over a decade of experience delivering services and consulting for regulatory security requirements. Our managed service provider is responsible for the day-to-day management of the cybersecurity program, including the prevention, detection, investigation, response to, and recovery from cybersecurity threats and incidents, and are regularly engaged to help ensure the cybersecurity program functions effectively in the face of evolving cybersecurity threats. The managed service provider provides regular briefings for our senior management team on cybersecurity matters, including threats, events and program enhancements.

Board Oversight

The Board of Directors ("Board") has overall responsibility for risk oversight and oversees cybersecurity risk matters. The Board is responsible for reviewing, discussing with management and overseeing the Company’s data privacy, information technology and security and cybersecurity risk exposures. On a regular basis, the CFO reports to the Board or the Audit Committee of the Board on information technology and cybersecurity matters, including key risks, the potential impact of those exposures on the Company’s business, financial results, operations and reputation, the programs and steps implemented by management to monitor and mitigate exposures, the Company’s information governance and cybersecurity policies and programs, and significant legal/regulatory developments that could materially impact the Company’s cybersecurity risk exposure.

The CFO also apprises the Board of cybersecurity incidents promptly for more significant incidents and in the aggregate for less significant incidents.

Cybersecurity Risks

Our senior management identify, assess and evaluate risks impacting our operations across the Company, including those risks related to cybersecurity. Senior management is asked to consider the severity and likelihood of certain risk factors, drawing upon their company knowledge and past business experience.

We maintain specific coverage to mitigate losses associated with cybersecurity incidents that impact our or our third parties' systems, networks, and technology.

As of December 31, 2023, we are not aware of any material risks form cybersecurity threats, including as a result of any previous cybersecurity incidents, that have materially affected the business strategy, results of operations or financial condition of the Company or are reasonably likely to have such a material effect. While we maintain a comprehensive cybersecurity program, the techniques used to infiltrate information technology systems continue to evolve. Accordingly, we may not be able to timely detect threats or anticipate and implement adequate security measures. For additional information, see “*Item 1A—Risk Factors.*”

ITEM 2 – PROPERTIES

The Company's executive offices are located at 2401 Elliott Avenue, Suite 320, Seattle, WA 98121, where it leases approximately 6,400 square feet of office space for approximately $9,125 per month subject to increases as defined in the lease agreement plus the Company's share of taxes and common area expenses. The lease terminates in October 2028.

In addition, the Company leases laboratory and office space at 2500 Crosspark Road, Coralville, IA 52241 ("BioVentures Center") in the University of Iowa Research Park for approximately $12,600 per month. The leases have been renewed on an annual basis and currently runs through November 2024. In addition, the lease at the BioVentures Center grants 24/7 access for Perspective employees to the University of Iowa core laboratories including the vivarium, small animal imaging facilities, pathology, microscopy, mass spectrometry, nuclear magnetic resonance and other molecular characterization facilities.

In December 2022, Perspective completed the purchase of a 20,000 square-foot building located at 4125 Westcor Ct. Coralville, IA that is currently used only for office space and will be built out to accommodate laboratory and manufacturing space in the future.

In January 2024, Perspective announced its intent to acquire the lease of Lantheus' radiopharmaceutical manufacturing facility located at 110 Clyde Road, Somerset, NJ, and Perspective has subsequently agreed to acquire Lantheus' office lease at 270 Davidson Avenue, Suite 320, Somerset, NJ. The Clyde Road lease rent is approximately $6,200 per month for approximately 11,400 square feet for sole and exclusive use, 700 square feet of common space and approximately 500 square feet of joint use space (each as defined in the agreement), and the lease terminates in November 2028. The Davidson Avenue lease rent is approximately $12,500 per month for 8,000 square feet and the lease will terminate in August 2026. The Davidson Avenue office lease was acquired in February 2024, and the Clyde Road facility lease was acquired in March 2024.

In December 2023, Perspective announced the divestiture of the brachytherapy division which includes the production facility located at 350 Hills Street, Suite 106, Richland, WA 99352 where it leased approximately 15,300 square feet of office and manufacturing space for approximately $25,900 per month plus approximately $440 per month for janitorial services.

In 2017, the Company purchased approximately 4.2 acres of land in Richland, WA in anticipation of constructing a facility for its discontinued brachytherapy operations. Due to the divestiture of the brachytherapy operations, the Company intends to dispose of this land in the future.

The Company's management believes that the facilities currently occupied by the Company are adequate for present requirements, and that the Company's current equipment is in good condition and is suitable for the operations involved.

ITEM 3 – LEGAL PROCEEDINGS

The Company may, in the ordinary course of business, be involved in legal proceedings involving securities, contractual and employment relationships, product liability claims, patent rights, environmental matters, and a variety of other matters, the outcomes of which are not within the Company's complete control and may not be known for extended periods of time. Legal costs associated with defending these matters are expensed as incurred. The Company is only involved in ordinary routine litigation incidental to its business.

On February 14, 2023, the Company was informed by the Office of the United States Attorney for the Northern District of California (the "Office") that the Office is investigating whether the Company's payments to its former medical director may have violated the False Claims Act and the Anti-Kickback Statute. From February 2006 until September 2022, the Company engaged a physician to serve as its medical director. The physician was the head of a physician practice that was a top customer of the Company. As medical director, the physician advised the Company's Board of Directors and management, provided technical advice related to product development and research and development, provided internal training to the Company's sales staff and provided professional training to the Company's sales staff and to other physicians, among other things. The letter invited the Company to produce documents voluntarily or receive a civil investigative demand requiring the production of documents. The Company promptly commenced an internal review of the matter, and its review is ongoing. In mid-April 2023, the Company voluntarily produced documents in response to the Office's request.

On July 17, 2023, the Company was informed by the California Department of Insurance (the "CA DOI") that the CA DOI is conducting a substantially similar investigation to the one undertaken by the Office. The CA DOI requested the same materials the Company previously provided to the Office, and the Company complied with this request.

On September 18, 2023, the Office informed the Company that there was a qui tam action underlying its investigation, and that the Office had declined to intervene in that action, and that the CA DOI similarly would not pursue any action against the Company regarding those same qui tam allegations. The qui tam action was originally filed on October 11, 2022, and unsealed on or about August 11, 2023.

On November 8, 2023, the complainant filed a notice to dismiss the complaint without prejudice; that notice stated that both the United States and the State of California would consent to dismissal without prejudice. In January 2024, the court granted the dismissal without prejudice.

ITEM 4 –MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5 – MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

The Company's common stock is listed on the NYSE American under the symbol "CATX" and as of March 22, 2024, there were 586,915,977 shares outstanding.

Holders

As of March 22, 2024, there were approximately 243 common stockholders of record. The number of common stockholders was determined from the records of our stock transfer agent and does not reflect persons or entities that hold their shares in nominee or "street" name through various brokerage firms.

Dividends

The Company has never paid cash dividends on its common stock and does not plan to pay cash dividends on its common stock in the foreseeable future. Our Board of Directors anticipates that any earnings that might be available to pay dividends will be retained to finance operations.

Securities Authorized for Issuance Under Equity Compensation Plans

The information required by Item 5 of Form 10-K regarding equity compensation plans is incorporated herein by reference to Item 12 of Part III of this Form 10-K.

Performance Graph

As a smaller reporting company, the Company is not required to provide a performance graph.

Recent Sales of Unregistered Securities

Our sales of unregistered securities have been previously reported in our reports on Forms 8-K and 10-Q.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

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 financial statements and the related notes appearing at the end of 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 and related financing, includes forward-looking statements that involve risks and uncertainties. You should read "Cautionary Note Regarding Forward-Looking Statements" and Item 1A. Risk Factors of this Annual Report on Form 10-K ("Annual Report" or "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.

General Presentation

This Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") generally discusses year-to-year comparisons between the year ended December 31, 2023 and the comparative year ended December 31, 2022. Due to our change in fiscal year from June 30 to December 31, the comparative year ended December 31, 2022 was unaudited. A discussion of the changes in our financial condition and results of operations for the six-month transition period ended December 31, 2022 and the fiscal years ended June 30, 2022 and 2021, has been omitted from this report, but may be found in Item 7, MD&A, of our Annual Reports on Form 10-KT for the six months ended December 31, 2022 and Form 10-K for the year ended June 30, 2022, filed with the Securities and Exchange Commission ("SEC") on May 1, 2023 and September 28, 2022, respectively, which are available free of charge on the SEC's website at www.sec.gov.

Overview

We are developing the next generation of precision-targeted alpha therapies ("TAT") for oncology that have the potential to treat a large population of cancer patients across multiple tumor types, including those with metastatic disease. By leveraging our proprietary TAT platform, we aim to develop alpha-emitting radiopharmaceuticals that can be attached to targeting peptides to deliver the radioactive payload directly to difficult-to-treat tumors. The foundation of our TAT platform is our Pb-specific chelator ("PSC") and peptide linker technology, which is designed to enable us to connect our alpha-emitting isotope of choice, Lead-212 ("^{212}Pb" or "Pb-212"), to a desired targeting peptide to deliver radiation directly to cancer cells. Unlike commercially available chelators and linkers, our proprietary PSC and peptide linker have shown, in preclinical studies, the differentiated ability to promote enhanced clearance of the non-tumor localized ^{212}Pb payload without sacrificing the uptake of the alpha particle into the tumor. Rapid clearance of the alpha-emitting isotope from normal tissues is important to enhance tolerability and widen the therapeutic window of our program candidates. We are also developing complementary diagnostics that utilize the same targeting peptide and imaging isotopes such as Lead-203 ("^{203}Pb" or "Pb-203"), Gallium-68 ("^{68}Ga" or "Ga-68"), or Copper-64 ("^{64}Cu" or "Cu-64") to provide the opportunity to understand which patients may respond to targeted therapy.

Our platform generates TATs that are comprised of three components: (i) a targeting peptide that is designed to selectively target ligands that are unique to, or preferentially expressed on, cancer cells throughout the body; (ii) the alpha-emitting medical isotope ^{212}Pb designed to kill cancer cells; and (iii) our proprietary linker that attaches the targeting molecule to the radioactive payload.

We utilized our TAT platform to discover, design and develop our initial programs, VMT-α-NET and VMT01, which are currently in ongoing Phase 1 clinical trials, and we plan to continue to leverage our platform to assess the potential of and develop multiple additional pipeline programs. Using our proprietary platform technology, VMT-α-NET and VMT01 are engineered to target cancer-specific receptors on tumor cells. [^{212}Pb]VMT-α-NET is a TAT in development for patients with unresectable or metastatic somatostatin receptor type 2 ("SSTR2")-expressing tumors who have not previously received peptide-targeted radiopharmaceutical therapy, such as Lutathera. [^{212}Pb]VMT01 is a TAT in development for second-line or later treatment of patients with progressive MC1R-positive metastatic melanoma.

We have had recurring losses since inception. We expect our expenses to increase in connection with our ongoing activities, particularly as we advance and expand preclinical activities, clinical trials and potential commercialization of our product candidates. Our costs will also increase as we:

- continue the development of our clinical-stage metastatic melanoma tumor and neuroendocrine tumor assets, including VMT01 and VMT-α-NET;
- continue the development of our other program candidates;
- continue to initiate and progress other supporting studies required for regulatory approval of our program candidates;
- initiate preclinical studies and clinical trials for any additional indications for our current program candidates and any future program candidates that we may pursue;
- continue to build our portfolio of program candidates through the acquisition or in-license of additional program candidates or technologies;
- continue to develop, maintain, expand and protect our intellectual property portfolio;
- pursue regulatory approvals for our current and future program candidates that successfully complete clinical trials;
- support our marketing and distribution infrastructure to commercialize any future program candidates for which we may obtain marketing approval; and
- hire additional clinical, medical and development personnel.

As of December 31, 2023, we had cash and cash equivalents of $9.2 million. We believe our cash and cash equivalents, including the cash we raised through the Lantheus Investment Agreement, the January 2024 Public Offering and the March 2024 Private Placement will be sufficient to fund our operations for at least the next 12 months from the date the consolidated financial statements in this report were issued and into 2026. For additional information regarding the cash we raised, see "- *Liquidity and Capital Resources - Sources of Liquidity"* below and Note 20, *Subsequent Events* in this Form 10-K. Monthly operating expenses are budgeted to increase for research and development and general and administrative expenses in fiscal year 2024 as management works to implement its strategy to advance its two clinical assets, VMT01 and VMT-α-NET, in their clinical trials and to progress its preclinical assets towards clinical trials. Management anticipates a significant increase of expenses, particularly in research and development, as it undertakes these activities in fiscal year 2024.

On February 3, 2023, we completed the merger of Isoray Acquisition Corp., a Delaware corporation and our wholly owned subsidiary, with Viewpoint Molecular Targeting, Inc. (“Viewpoint”) (such transaction being the “Merger”). Pursuant to the Merger, we issued 136,545,075 shares of common stock, representing approximately 49% of our fully diluted outstanding capital stock. Viewpoint is an alpha-particle radiopharmaceutical company in the alpha-emitter market developing oncology therapeutics and complementary imaging agents.

For a more detailed summary of the Merger, see our Forms 8-K filed with the Securities and Exchange Commission (“SEC”) on September 28, 2022, and on February 6, 2023, and our Form 8-K/A filed with the SEC on April 21, 2023, which are available free of charge on the SEC’s website at www.sec.gov.

Historically, we operated a brachytherapy division and since the Merger, we now operate as a radiopharmaceutical development division. On December 7, 2023, we entered into an Asset Purchase Agreement (the “GT Medical APA”) with Isoray and GT Medical Technologies, Inc. (“GT Medical”).

Subject to the satisfaction or waiver of the conditions set forth in the GT Medical APA, Isoray will sell to GT Medical, and GT Medical will purchase from Isoray, all of Isoray’s right, title and interest in and to substantially all of the assets of Isoray related to Isoray’s commercial Cesium-131 business including equipment, certain contracts and leases, inventory and intellectual property (the “GT Medical Asset Purchase”). Subject to limited exceptions set forth in the GT Medical APA, GT Medical is not assuming the liabilities of Isoray.

The GT Medical APA also includes customary termination provisions, including that, in general, either party may terminate the GT Medical APA if the transaction has not been consummated by March 31, 2024, or if any governmental authority issues any order that restrains, enjoins or otherwise prohibits or prevents the transaction. We expect the GT Medical Asset Purchase to be completed in the first half of 2024.

As a result of the transaction, we have effectively exited the brachytherapy segment and will now focus exclusively on our radiopharmaceutical development segment. The sale of the brachytherapy segment represents a strategic shift that will have a major effect on our operations. We accounted for the transaction as discontinued operations on the date the divestiture was announced. Accordingly, we are reporting the results of the brachytherapy segment operations and cash flows, and balance sheet classifications for the current and comparative periods as discontinued operations. Prior to the consummation of the sale, we were neither actively marketing the brachytherapy business for sale nor had intentions to abandon it and, as a result, did not present the results as assets held for sale or discontinued operations in prior filings. See footnotes to the financial statements for our discontinued operations reporting.

For a full discussion of the GT Medical Asset Purchase, see " *Item 1A - Business*."

Critical Accounting Policies and Estimates

Management’s discussion and analysis of the Company’s financial condition and results of operations are based upon its consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and the related disclosure of contingent liabilities. On an ongoing basis, management evaluates past estimates and judgments, including those related to accrued liabilities, derivative liabilities and contingencies. Management bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

The Company believes the following critical accounting policies affect its more significant judgments and estimates used in the preparation of its consolidated financial statements.

Share-Based Compensation

The Company measures and recognizes expense for all share-based payments at fair value. The Company uses the Black-Scholes option valuation model to estimate fair value for all stock options on the date of grant. For stock options that vest over time, the Company recognizes compensation cost on a straight-line basis over the requisite service period for the entire award. The Company recognizes forfeitures as they occur.

Research and Development Costs

Research and development costs, including salaries, benefits, and share-based compensation, research materials, facility overhead, lab supplies, depreciation, administrative expenses and contractor fees, are charged to operations as incurred.

Legal Contingencies

The Company may, in the ordinary course of business, be involved in legal proceedings involving securities, contractual and employment relationships, product liability claims, patent rights, environmental matters, and a variety of other matters, the outcomes of which are not within the Company's complete control and may not be known for extended periods of time. Legal costs associated with defending these matters are expensed as incurred.

The Company records a liability in its consolidated financial statements for damages and/or costs related to claims, settlements, and judgments where the Company has assessed that the loss is probable and an amount can be reasonably estimated.

Business Acquisition Accounting

The Company applies the acquisition method of accounting for those that meet the criteria of a business combination. The Company allocates the purchase price of its business acquisition based on the fair value of identifiable tangible and intangible assets and liabilities. The difference between the total cost of the acquisition and the sum of the fair values of acquired tangible and identifiable intangible assets less liabilities is recorded as goodwill. Transaction costs are expensed as incurred in general and administrative expenses.

If applicable, the Company records deferred taxes for any differences between the assigned values and tax basis of assets and liabilities. Estimated deferred taxes are based on available information concerning the tax basis of assets acquired and liabilities assumed at the acquisition date, although such estimates may change in the future as additional information becomes known.

Goodwill and In-Process Research and Development ("IPR&D")

The fair value of acquired intangible assets is determined using an income-based approach referred to as the multi-period excess-earnings approach.

Goodwill is tested at least annually for impairment by assessing qualitative factors in determining whether it is more likely than not that the fair value of net assets is below their carrying amounts.

IPR&D assets represent the fair value of incomplete research and development ("R&D") projects that had not reached technological feasibility as of the date of the acquisition. Initially, these assets are classified as IPR&D and are not subject to amortization. IPR&D assets that reach commercialization are amortized on a straight-line basis over their estimated useful life. Estimated useful lives are determined considering the period the assets are expected to contribute to future cash flows. IPR&D is tested for impairment at least annually or more frequently if events occur or circumstances change that would indicate a potential reduction in the fair values of the assets below their carrying value. Impairment charges are recognized to the extent the carrying value of IPR&D is determined to exceed its fair value. Post-acquisition R&D expenses related to these projects are expensed as incurred.

Grant Revenue Recognition

The Company enters into contracts with governmental agencies for services. These contracts are analyzed in order to determine if they should be accounted for under a revenue recognition model pursuant to Accounting Standards Codification ("ASC") 606, *Revenue from Contracts with Customers*, or a grant model pursuant to ASC 958, *Not-for-Profit Entities*. If accounted for pursuant to a grant model, the Company must determine if the grant is conditional or unconditional, and if any conditional barriers exist which must be overcome. If unconditional, the grant is recognized as revenue immediately, and if conditional, the grant is recognized as revenue as and when the barriers are overcome. We concluded that payments received under the current grants represent conditional, nonreciprocal contributions, as described in ASC 958, and that the grants are not within the scope of ASC 606, as the organizations providing the grants do not meet the definition of a customer. The significant barrier to the current conditional grants is that the expenses incurred must meet the qualifications as established by the respective governmental agencies, so that the grant revenue is recognized as the qualified expenses are incurred. Expenses for grants are tracked using a project code specific to the grant, and the employees also track hours worked by using the project code. Under ASC 958, grants related to income are presented as part of the consolidated statements of operations, either separately or under a general heading. Both methods are acceptable under ASC 958. The Company has elected to record grants related to income separately on the consolidated statements of operations as grant revenue. The related expenses are recorded within R&D and general and administrative.

Assets Held for Sale and Discontinued Operations

The Company classifies assets and liabilities to be sold ("disposal group") as held for sale in the period when all of the applicable criteria are met, including: (i) management commits to a plan to sell, (ii) the disposal group is available to sell in its present condition, (iii) there is an active program to locate a buyer, (iv) the disposal group is being actively marketed at a reasonable price in relation to its fair value, (v) significant changes to the plan to sell are unlikely, and (vi) the sale of the disposal group is generally probable of being completed within one year. Management performs an assessment at least quarterly or when events or changes in business circumstances indicate that a change in classification may be necessary.

Assets and liabilities held for sale are presented separately within the consolidated balance sheets with any adjustments necessary to measure the disposal group at the lower of its carrying value or fair value less costs to sell. Depreciation of property and equipment and amortization right-of-use assets are not recorded while these assets are classified as held for sale. For each period the disposal group remains classified as held for sale, its recoverability is reassessed and any necessary adjustments are made to its carrying value.

The Company categorizes the assets and liabilities of a business component as discontinued operations once management commits to a plan to sell, the business segment is available for immediate sale, management has initiated a plan to sell at a price that is reasonable in relation to its fair value, management anticipates the sale will occur within one year, and it is unlikely that significant changes will be made to the plan to sell. In addition, the business component must be comprised of operations and cash flows that are clearly distinguished from the rest of the entity. The results of discontinued operations are aggregated and presented separately in the consolidated balance sheets and consolidated statements of operations.

Results of Operations

Financial Presentation

The following sets forth a discussion and analysis of the Company's financial condition and results of operations for the years ended December 31, 2023 and 2022. This discussion and analysis should be read in conjunction with our consolidated financial statements appearing elsewhere in this Annual Report. The following discussion contains forward-looking statements. Our actual results may differ significantly from the results discussed in such forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in "*Item 1A — Risk Factors*," beginning on page 34 of this Annual Report.

The Company has previously presented its results in two segments: Drug Operations and Brachytherapy. Due to the divestiture of all of the brachytherapy segment to GT Medical and the classification of the assets and operations of the brachytherapy segment as discontinued operations in our financial statements, we have now determined that we operate in only one segment. As a result, the following does not include a discussion of the results of our discontinued operations. For additional information regarding our discontinued operations and transitional period comparative data, see Note 4, *Discontinued Operations,* and Note 18, *Transitional Period Comparative Data,* to the financial statements in this Form 10-K.

	For the year ended December 31,		
	2023	2022 (unaudited)	Change
		(in thousands)	
Grant revenue	$ 1,434	$ -	$ 1,434
Gross profit	1,434	-	1,434
Operating expenses:			
Research and development	21,311	881	20,430
General and administrative	21,064	7,486	13,578
Loss on disposal of property and equipment	-	305	(305)
Total operating expenses	42,375	8,672	33,703
Operating loss	$ (40,941)	$ (8,672)	$ (32,269)

Revenue

Grant Revenue

Grant revenue of $1.4 million is derived from our work for the National Institutes of Health. We did not have any grant revenue prior to the acquisition of Viewpoint on February 3, 2023.

Operating Expenses

Research and Development Expenses

Research and development expenses consisted primarily of the costs related to employee and third-party research and development activities. Contributing to the increase of $20.4 million from $0.9 million for the year ended December 31, 2022 to $21.3 million for the year ended December 31, 2023 were the increased costs related to the development of our targeted alpha therapy drug programs gained through the merger with Viewpoint.

Management believes that research and development expenses will increase as we continue to invest in the development of new drugs and products in the alpha-emitter space.

General and Administrative Expenses

General and administrative expenses consist primarily of the costs related to the executive, finance, human resources and information technology functions of the Company.

The primary reasons for the increase of $13.6 million in general and administrative expenses for the year ended December 31, 2023 compared to the year ended December 31, 2022 were change of control payments and the acceleration of share-based compensation as a result of the merger with Viewpoint, increased personnel and other expenses related to the former Viewpoint operations, along with increased consulting, legal and audit expenses.

Liquidity and Capital Resources

The Company assesses its liquidity in terms of its ability to generate cash to fund its operating, investing and financing activities. The Company has historically financed its operations through selling equity to investors. During the year ended December 31, 2023, the Company raised approximately $0.6 million pursuant to the exercise of options to purchase common stock. Existing cash reserves from prior capital raises and $0.4 million raised from the ATM Agreement were used to fund the Company's operations and capital expenditures during the year ended December 31, 2023.

Our cash flows for the years ended December 31, 2023 and 2022 (unaudited), respectively, are summarized as follows (in thousands):

	For the year ended December 31,	
	2023	2022 (unaudited)
Net cash used by operating activities	$ (36,913)	$ (10,401)
Net cash provided by (used in) investing activities	24,373	(28,988)
Net cash provided by financing activities	785	28
Net decreases in cash and cash equivalents	$ (11,755)	$ (39,361)

	As of December 31,	
	2023	2022
Working Capital	$ 1,173	$ 50,097
Current Ratio	1.07	17.07

Cash Flows from Operating Activities

Net cash used by operating activities in the year ended December 31, 2023 was primarily due to an approximate net loss of $46.5 million, net of approximately $7.3 million in adjustments for non-cash activity such as depreciation and amortization expense, the accretion of asset retirement obligation, and share-based compensation. Changes in operating assets and liabilities contributed approximately $2.3 million to the cash used by operating activities.

Net cash used by operating activities in the year ended December 31, 2022 was primarily due to an approximate net loss of $10.8 million, net of approximately $1.4 million in adjustments for non-cash activity such as depreciation and amortization expense, the accretion of asset retirement obligation and share-based compensation. Changes in operating assets and liabilities contributed approximately $1.0 million to the cash provided by operating activities.

Cash Flows from Investing Activities

Investing activities for both years are presented by primary transaction category. Investing activities consisted of transactions related to the purchase of fixed assets as well as the purchase and subsequent maturity of certificates of deposit or U.S. Treasury Bills. Management will continue to invest in resources to further develop our internal manufacturing process and capabilities and to invest and reinvest maturing certificates of deposit and U.S. Treasury Bills in low-risk investment opportunities that safeguard assets and provide greater assurance those resources will be liquid and available for business needs as they arise.

Cash Flows from Financing Activities

Financing activities for both years are presented by primary transaction category. Financing activities for the year ended December 31, 2023 were primarily due to option exercises and $0.4 million raised from the ATM Agreement. Financing activities for the year ended December 31, 2022 were primarily due to option exercises.

Sources of Liquidity

ATM Agreement

We have an At Market Issuance Sales Agreement (the "ATM Agreement") with Oppenheimer & Co., Inc., B. Riley Securities, Inc. and JonesTrading Institutional Services LLC, dated November 17, 2023, to create an "at-the-market" equity program under which we may offer and sell shares of our common stock, from time to time.

On November 17, 2023, we filed a shelf registration statement on Form S-3 with the SEC (File No. 333-275638) and accompanying base prospectus, declared effective by the SEC on December 14, 2023, for the offer and sale of up to $200 million of our securities (the "December 2023 Registration Statement"). Also on November 17, 2023, we filed a prospectus supplement with the SEC in connection with the offering of up to $50 million of shares of our common stock pursuant to the ATM Agreement under the December 2023 Registration Statement.

During the year ended December 31, 2023, we issued 1,238,826 shares of our common stock under the Sales Agreement, resulting in net proceeds of approximately $0.4 million. As of December 31, 2023, we had an aggregate of $199.6 million available under the December 2023 Registration Statement.

Funding Requirements

We expect our expenses to increase in connection with our ongoing activities, particularly as we advance and expand preclinical activities, clinical trials and potential commercialization of our program candidates. Our costs will also increase as we:

- continue the development of our clinical-stage metastatic melanoma tumor and neuroendocrine tumor assets, including VMT01 and VMT-α-NET;
- continue the development of our other program candidates;
- continue to initiate and progress other supporting studies required for regulatory approval of our program candidates;
- initiate preclinical studies and clinical trials for any additional indications for our current program candidates and any future program candidates that we may pursue;
- continue to build our portfolio of program candidates through the acquisition or in-license of additional program candidates or technologies;
- continue to develop, maintain, expand and protect our intellectual property portfolio;
- pursue regulatory approvals for our current and future program candidates that successfully complete clinical trials;
- support our marketing and distribution infrastructure to commercialize any future program candidates for which we may obtain marketing approval; and
- hire additional clinical, medical and development personnel.

As of December 31, 2023, we had cash and cash equivalents of $9.2 million and an accumulated deficit of $152.4 million. Our continued viability is dependent on the ability to successfully obtain additional working capital and ultimately attain profitable operations if we commercialize our program candidates. We believe our cash and cash equivalents, including the cash we raised through the Lantheus Investment Agreement, the January 2024 Public Offering and the March 2024 Private Placement, will be sufficient to fund our operations and capital investments into 2026. For additional information regarding the cash we raised, see *Financing Activities* below and Note 20, *Subsequent Events* in this Form 10-K. Monthly operating expenses are budgeted to increase for research and development and general and administrative expenses in fiscal year 2024 as management works to implement our strategy to advance our two clinical assets, VMT-α-NET and VMT01, in our clinical trials and to progress our preclinical assets towards clinical trials. Management anticipates a significant increase of expenses, particularly in research and development, as we undertake these activities in fiscal year 2024 and beyond.

We expect we will need to raise additional capital until we are profitable, which may never occur. If no additional capital is raised through either additional public or private equity financings, debt financings, strategic relationships, alliances and licensing agreements, or a combination thereof, we may delay, limit or reduce discretionary spending in areas related to research and development activities and other general and administrative expenses in order to fund our operating costs and working capital needs.

We have based these estimates on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we expect. We expect that we will require additional capital to pursue in-licenses or acquisitions of other product candidates. If we receive regulatory approvals for our product candidates, we expect to incur commercialization expenses related to product manufacturing, sales, marketing and distribution, depending on where we choose to commercialize or whether we commercialize jointly or on our own.

Because of the numerous risks and uncertainties associated with research, development and commercialization of our program candidates, we are unable to estimate the exact amount of our working capital requirements. Our future funding requirements will depend on and could increase significantly as a result of many factors, including:

- the scope, progress, results and costs of researching and developing our program candidates, and conducting preclinical studies and clinical trials;
- the costs, timing and outcome of regulatory review of our program candidates;
- the costs and timing of hiring new employees to support our continued growth;
- the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims;
- the extent to which we acquire or in-license other program candidates and technologies; and
- our ability to generate cash, and successfully obtain additional working capital, to fund our operating, investing and financing activities.

Until such time, if ever, that we can generate product revenue sufficient to achieve profitability, we expect to finance our cash needs through a combination of public and private equity offerings, debt financings, other third-party funding, strategic alliances, licensing arrangements or marketing and distribution arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our existing shareholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our existing shareholders. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through other third-party funding, strategic alliances, licensing arrangements, outright sales of product candidates or marketing and distribution arrangements, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we will be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market products or product candidates that we would otherwise prefer to develop and market ourselves.

Capital Expenditures

Management is reviewing all aspects of research and development and general and administrative functions to evaluate the most efficient deployment of capital to ensure that the appropriate materials, systems and personnel are available to support and drive clinical trials and preclinical activities.

Financing Activities

During the year ended December 31, 2023, the Company received approximately $0.6 million as a result of the exercise of 1,913,185 options to purchase common stock.

During the year ended December 31, 2022, the Company received approximately $28 thousand as a result of the exercise of 72,500 options to purchase common stock.

On March 4, 2024, Perspective entered into an investment agreement (the "March 2024 Investment Agreement") with certain accredited institutional investors ("Institutional Investors") pursuant to which Perspective agreed to issue and sell, in a private placement (the "March 2024 Private Placement"), 92,009,981 shares of Perspective's common stock, par value $0.001 per share (the "Common Stock"), for a purchase price of $0.95 per share, representing the closing price of the Common Stock on March 1, 2024. The closing of the March 2024 Private Placement occurred on March 6, 2024 (the "March 2024 Closing"). The gross proceeds to the Company from the March 2024 Private Placement were approximately $87.4 million, before deducting fees and other estimated transaction expenses. Perspective intends to use the net proceeds from the March 2024 Private Placement for general corporate and working capital purposes, which may include research and development expenditures, preclinical study and clinical trial expenditures, manufacturing expenditures, commercialization expenditures, capital expenditures, acquisitions of new technologies, products or businesses and investments.

On January 8, 2024, Perspective entered into an investment agreement (the "Lantheus Investment Agreement") with Lantheus Alpha Therapy, LLC, a Delaware limited liability company and wholly owned subsidiary of Lantheus Holdings, Inc. ("Lantheus"), pursuant to which Perspective agreed to sell and issue to Lantheus in a private placement transaction (the "Lantheus Private Placement") certain shares (the "Lantheus Shares") of Perspective's Common Stock. The closing of the purchase and sale of the Lantheus Shares to Lantheus by Perspective (the "Lantheus Closing") were subject to Perspective raising at least $50.0 million of gross proceeds (excluding Lantheus' investment) in a qualifying third-party financing transaction, which occurred on January 22, 2024. The number of Lantheus Shares sold was 56,342,355, representing 19.99% of the outstanding shares of Common Stock as of January 8, 2024. Pursuant to the Lantheus Investment Agreement, Perspective agreed to cooperate in good faith to negotiate and enter into a registration rights agreement with Lantheus, obligating Perspective to file a registration statement on Form S-3 with the U.S. Securities and Exchange Commission to register for resale the Lantheus Shares issued at the Lantheus Closing. The Lantheus Investment Agreement also contains agreements of Perspective and Lantheus whereby Lantheus is provided certain board observer and information rights of Perspective, as well as standstill provisions prohibiting Lantheus from taking certain actions for a specified period of time, subject to certain exceptions.

On January 17, 2024, the Company entered into an underwriting agreement (the "Underwriting Agreement") with Oppenheimer & Co. Inc., as representative of the underwriters named therein (the "Underwriters"), in connection with its previously announced underwritten public offering (the "Public Offering") of 132,075,218 shares (the "Public Shares") of the Company's common stock, par value $0.001 per share (the "Common Stock"), and, in lieu of Public Shares to certain investors, pre-funded warrants (the "Pre-funded Warrants") to purchase 30,086,944 shares of Common Stock. The price to the public for the Public Shares was $0.37 per Public Share, and the price to the public for the Pre-funded Warrants was $0.369 per Pre-funded Warrant, which represents the per share price for the Public Shares less the $0.001 per share exercise price for each such Pre-funded Warrant. Under the terms of the Underwriting Agreement, the Company granted the Underwriters an option, exercisable for 30 days, to purchase up to an additional 24,324,324 shares of Common Stock at the same price per share as the Public Shares, which such option was fully exercised by the Underwriters on January 18, 2024. The Public Offering closed on January 22, 2024.

The gross proceeds to the Company from the Public Offering were approximately $69.0 million, before underwriting discounts and commissions and estimated expenses of the Public Offering. The Company intends to use the net proceeds from the Public Offering for general corporate purposes, which may include research and development expenditures, preclinical study and clinical trial expenditures, manufacturing expenditures, commercialization expenditures, working capital, capital expenditures, acquisitions of new technologies, products or businesses and investments.

The Public Offering was made pursuant to the Company's shelf registration statement on Form S-3 (File No. 333-275638), declared effective by the Securities and Exchange Commission on December 14, 2023, a base prospectus dated December 14, 2023, and the related prospectus supplement dated January 17, 2024.

The Pre-funded Warrants are exercisable at any time after the date of issuance. The exercise price and the number of shares of Common Stock issuable upon exercise of each Pre-funded Warrant (the "Warrant Shares") are subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting the Common Stock as well as upon any distribution of assets, including cash, stock or other property, to the Company's stockholders. The Pre-funded Warrants will not expire and are exercisable in cash or by means of a cashless exercise. A holder of Pre-funded Warrants may not exercise such Pre-funded Warrants if the aggregate number of shares of Common Stock beneficially owned by such holder, together with its affiliates, would beneficially own more than 4.99% of the issued and outstanding shares of Common Stock following such exercise, as such percentage ownership is determined in accordance with the terms of the Pre-funded Warrants. A holder of Pre-funded Warrants may increase or decrease this percentage not in excess of 19.99% by providing at least 61 days' prior notice to the Company.

On November 17, 2023, the Company filed a Form S-3 registration statement which was amended on December 7, 2023, and became effective on December 14, 2023, with the potential to register up to $200 million of equity securities. On November 17, 2023, the Company entered into an At Market Issuance Sales Agreement (the "ATM Agreement") with Oppenheimer & Co., Inc., B. Riley Securities, Inc. and JonesTrading Institutional Services LLC (each and "Agent" and together the "Agents") to create an "at-the-market" equity program under which the Company from time to time may offer and sell shares (the "ATM Shares") of its common stock, par value $0.001 per share, through or to the Agents. The common stock sold pursuant to the ATM Agreement will be distributed at the market prices prevailing at the time of sale. The ATM Agreement provides that the Agents will be entitled to compensation for its services at a commission rate of 3.0% of the gross sales price per share of common stock sold plus reimbursement of certain expenses. As of December 31, 2023, the Company had sold an aggregate of 1,238,826 shares under the distribution agreement at an average price of approximately $0.303 per common share for gross proceeds of approximately $0.4 million.

When it does require capital in the future, the Company expects to finance its cash needs through sales of equity, possible strategic collaborations, debt financing or through other sources that may be dilutive to existing stockholders, Management anticipates that if it raises additional financing that it will be at a discount to the market price and it will be dilutive to stockholders.

Other Commitments and Contingencies

The Company's purchase commitments and obligations include all open purchase orders and contractual obligations entered into in the ordinary course of business, including commitments with contract manufacturers and suppliers, for which we have not received the goods or services and acquisition and licensing of intellectual property. Although open purchase orders are considered enforceable and legally binding, the terms generally allow us the option to cancel, reschedule and/or adjust our requirements based on our business needs prior to the delivery of goods or performance of services.

On July 1, 2023, the Company entered into a lease with Unico Properties LLC for office space in Seattle, Washington, that terminates October 2028. Upon entering this lease, the Company recognized a right-of-use asset and lease liability of approximately $0.8 million on the balance sheet based upon the present value of the future base payments discounted at an 8% discount rate using the rate of interest that the Company would have to pay to borrow on a collateralized basis over a similar term and amount equal to the lease payments in a similar economic environment as the lease does not provide an implicit discount rate. The weighted average remaining term and discount rate as of December 31, 2023, was 4.83 years and 8%, respectively. Over the next five years, our lease liability less imputed interest totals approximately $0.8 million. For additional information related to the Company's leases, see Note 10, *Leases*.

Merger

On September 27, 2022, the Company entered into an Agreement and Plan of Merger (the "Merger Agreement") by and among the Company, Isoray Acquisition Corp., a Delaware corporation and wholly owned subsidiary of the Company ("Merger Sub"), Viewpoint Molecular Targeting, Inc. ("Viewpoint"), and Cameron Gray, as the representative of the Owners (as defined therein), as amended by the First Amendment to Agreement and Plan of Merger entered into by the parties on October 21, 2022 (the "Amendment"). On February 3, 2023 (the "Merger Closing"), the Company completed the merger of Merger Sub with Viewpoint (such transaction being the "Merger"). Viewpoint is an alpha-particle radiopharmaceutical company in the alpha-emitter market developing oncology therapeutics and complementary imaging agents. In connection with the Merger Closing, the Company issued 136,545,075 shares of common stock, representing approximately 49% of the fully diluted outstanding capital stock of the Company, to the stockholders of Viewpoint, with 10% of those shares being held in escrow by U.S. Bank National Association ("U.S. Bank") for the 12-month period following the Merger Closing pursuant to the terms of the Merger Agreement and an escrow agreement entered into among the Company, U.S. Bank and Cameron Gray. On February 5, 2024, the Company notified U.S. Bank that all of the escrow shares were to be released and distributed to the stockholders of Viewpoint.

For a more detailed summary of the Merger Agreement, see our Forms 8-K filed with the SEC on September 28, 2022 and on February 6, 2023 and our Form 8-K/A filed with the SEC on April 21, 2023.

Off-Balance Sheet Arrangements

The Company has no off-balance sheet arrangements.

Impact of Inflation

Inflation had minimal impact on our net sales and revenues but had an impact on loss from continuing operations as we have experienced increases in costs for materials and services.

Recent Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board or other standard setting bodies that we adopt as of the specified effective date. See Note 2, *Summary of Significant Accounting Policies*, to the financial statements in this Form 10-K for additional discussion of our adopted accounting policies and recent accounting pronouncements.

ITEM 7A – QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

As a smaller reporting company, the Company is not required to provide Item 7A disclosure in this Annual Report.

ITEM 8 – FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Information required by this Item 8 is incorporated by reference to our Consolidated Financial Statements and the Report of Independent Registered Public Accounting Firm beginning at page F-1 of this Report.

ITEM 9 – CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A – CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive officer and co-principal financial officers, we conducted an evaluation of the design and operation of our disclosure controls and procedures, as such term is defined under Rules 13a-15(e) and 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended ("Exchange Act"), as of December 31, 2023. Based on that evaluation, our principal executive officer and our co-principal financial officers concluded that the design and operation of our disclosure controls and procedures were effective. The design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions, regardless of how remote. However, management believes that our system of disclosure controls and procedures are designed to provide a reasonable level of assurance that the objectives of the system will be met.

Management's Annual Report on Internal Control over Financial Reporting

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. Our internal control over financial reporting is designed to provide reasonable assurance concerning both the reliability of our financial reporting and the preparation of our financial statements in accordance with generally accepted accounting principles. This control includes policies and procedures that obligate us to maintain reasonably detailed records that accurately and fairly reflect our transactions and the disposition of our assets, provide assurance that our transactions are properly recorded, ensure that our receipts and expenditures are authorized by management and, where applicable, our board of directors, and prevent or allow us to timely detect material unauthorized acquisitions, uses or dispositions of our assets.

We have evaluated the effectiveness of our internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control Integrated Framework (2013). This evaluation was performed under the supervision and with the participation of our management, including our chief executive officer and our co-principal financial officers and principal accounting officer, all of whom concluded that our internal control over financial reporting was effective as of December 31, 2023. Our evaluation of the effectiveness of our internal control over financial reporting in future periods may differ due to changing conditions or noncompliance with the policies and procedures we have established.

Changes in Internal Control over Financial Reporting

There have not been any changes in our internal control over financial reporting (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) during the most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B – OTHER INFORMATION

Trading Plans

None.

ITEM 9C - DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10 – DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Board Membership and Board Committees

Upon the closing of the Merger with Viewpoint Molecular Targeting, Inc., Perspective increased the size of its Board of Directors (the "Board of Directors" or the "Board") from four members to five members. During the year ended December 31, 2023:

- Alan Hoffmann and Dr. Philip Vitale resigned from the Board, and Michael McCormick resigned as Chairman of the Board but remained a member of the Board (Mr. McCormick then subsequently resigned from the Board on May 9, 2023);
- Lori Woods resigned as Chief Executive Officer of the Company and was appointed as Chairperson of the Board, and Johan (Thijs) Spoor, Robert Froman Williamson, III, and Dr. Frank Morich were appointed as members of the Board; and
- Heidi Henson was appointed to the Board on June 1, 2023.

The current directors of the Company are as follows:

Name	Type	Age	Audit Committee	Compensation Committee	Nominations and Corporate Governance Committee
Lori Woods, Chairperson	Non-independent	61	N/A	Member	Member
Heidi Henson	Independent	58	Chair	Member	N/A
Robert Froman Williamson, III	Independent	58	Member	Chair	Member
Frank Morich, M.D., Ph.D.	Independent	70	Member	N/A	Chair
Johan (Thijs) Spoor	Employee	51	N/A	N/A	N/A

Each member of the Board serves a one-year term and is subject to reelection at the Company's Annual Meeting of Stockholders held each year.

The Company's directors, as named above, will serve until the next annual meeting of the Company's stockholders or until their successors are duly elected and have qualified. Directors will be elected for one-year terms at the annual stockholders meeting. There is no arrangement or understanding between any of the directors or officers of the Company and any other person pursuant to which any director or officer was or is to be selected as a director or officer, and there is no arrangement, plan or understanding as to whether non-management stockholders will exercise their voting rights to continue to elect the current directors to the Board. There are also no arrangements, agreements or understandings between non-management stockholders that may directly or indirectly participate in or influence the management of the Company's affairs.

Lori Woods – Ms. Woods has been a Director of the Company since June 4, 2018, and has served as Chairperson of the Board since February 3, 2023. Most recently, Ms. Woods served as Chief Executive Officer of the Company from December 2018 to February 2023. Ms. Woods returned to the Company after previously serving as Vice President from 2006 to February 2008, at which time she was appointed Acting Chief Operating Officer before her appointment to Chief Operating Officer in February 2009, a position she held until January 2010. Beginning in February 2016, and continuing until her appointment as Interim CEO on June 4, 2018, Ms. Woods served as a senior consultant to the Company. From February 2016 to June 2018, Ms. Woods was a founder of Medvio, LLC, a medical device consulting company focused on the urology and oncology space. During her time at Medvio she worked with large public and international medical device companies, supporting the approval process and distribution of products in diverse international markets. Further, she worked with various partners to develop proprietary technologies for the colorectal and liver treatment markets. Previously, from January 2002 to July 2006, Ms. Woods served as Chief Executive Officer of Pro-Qura, Inc., a privately owned cancer treatment management company focused on the quality delivery of brachytherapy treatments for prostate cancer. She has also served as the Director of Business Development for the Tumor Institute Radiation Oncology Group and the Seattle Prostate Institute ("SPI") in Seattle, WA. SPI was an early innovator in prostate brachytherapy treatments and assisted in the training of more than 2,000 physicians in the use of prostate brachytherapy. Ms. Woods previously served as a board member of the Northwest division of the Juvenile Diabetes Research Foundation, focusing on their digital awareness programs, including their website and SEO strategy, and their public relations efforts. Ms. Woods earned a Bachelor of Science degree in Business Administration – Marketing and Communications from Loma Linda University, CA. Our Board of Directors believes that Ms. Woods' prior experience as our Chief Executive Officer, extensive experience and credibility in the brachytherapy industry, and strong relationships with suppliers and distributors of brachytherapy products qualifies her to serve on our Board.

Heidi Henson – Ms. Henson has been a director of the Company since June 1, 2023. Ms. Henson served as the Chief Financial Officer of Pardes Biosciences, Inc., a publicly listed biopharmaceutical company, from 2021 until the completion of their tender offer in August 2023. Prior to that, she was a financial consultant for the same company from 2020 until her appointment as Chief Financial Officer. From 2019 through 2020, she was the Chief Financial Officer of Imbria Pharmaceuticals, Inc., a private biopharmaceutical company. From 2018 through 2019, she was the Chief Financial Officer of Respivant Sciences, Inc., a private biopharmaceutical company. From 2014 through 2018, she was the Chief Financial Officers of Kura Oncology, Inc., a publicly listed biopharmaceuticals company. From 2012 through 2018, Ms. Henson was the Chief Financial Officer for Wellspring Biosciences LLC and Araxes Pharma LLC (its parent company), a private biopharmaceutical company. Ms. Henson currently serves on the board of directors of PepGen, Inc. and Lista Therapeutics, Inc., where she is the Chair of both of their audit committees. Ms. Henson holds a Bachelor of Accountancy from the University of San Diego and is a member of the Association of Bioscience Financial Officers, or ABFO. Our Board of Directors believes that Ms. Henson’s experience as a financial professional with over 25 years of experience in both public and private companies qualifies her to serve on our Board.

Robert Froman Williamson, III – Mr. Williamson has been a director of the Company since February 5, 2023. Mr. Williamson was appointed as a director in connection with the merger with Viewpoint. Since September 2022, Mr. Williamson has worked at Triumvira Immunologicals, a cell therapy company, most recently as President, COO and Director, and since March 2022, as a senior adviser to SyntheX, a protein interaction and degrader company. From February to September 2022, he was the CBO/CFO of OncoMyx, an oncolytic virus company. From 2020 to 2021 he was CEO of BioTheryX, a protein degradation therapeutics company, raising a $100 million crossover round and preparing the company for an IPO. Prior to that, Mr. Williamson served as CEO of PharmAkea from 2013 to 2019, and of ATXCo in 2019, both oncology and fibrosis companies financed through a partnership with Celgene, until PharmAkea’s acquisition by Galecto and ATXCo’s acquisition by Blade Therapeutics, both in 2019. Previously, Mr. Williamson was Executive Chairman and founder of Strategic Enzyme Applications, CEO of Arriva Pharmaceuticals, President and COO of Eos Biotechnology, which was sold to Protein Design Labs, and COO of DoubleTwist, Inc. through its acquisition by Merck and Hitachi. Mr. Williamson also serves on the Coulter Oversight Board for University of Miami, Florida, is a qualified financial expert and has chaired both the Compensation and Audit Committees of the Company. Notably, Mr. Williamson served as an early Director of Pharmasset, Inc., where he helped finance, grow and advance the company into the public markets and through its acquisition by Gilead in 2011 for $11 billion. Earlier, Mr. Williamson was a partner with The Boston Consulting Group and a research assistant for the Federal Reserve Board. Mr. Williamson received a BA in economics from Pomona College and an MBA from Stanford University. Our Board of Directors believes that Mr. Williamson’s active involvement in building biotechnology and related technology companies for over two decades qualifies him to serve on our Board.

Frank Morich, M.D., Ph.D. – Dr. Frank Morich has been a director of the Company since February 5, 2023. Dr. Morich was appointed as a director in connection with the merger with Viewpoint. Dr. Morich served on the board of directors of Viewpoint, from February 2021 until February 3, 2023. He has also served on the board of directors of CUE-Biopharma, located in Boston, Massachusetts, a company working on protein therapeutics with applications in immune-oncology, autoimmunity and potentially antiviral applications since August 2018, and as its Chairman since April 2021. Dr. Morich served on the board of directors for MorphoSys from 2015 to 2021, and for Innate Pharma from 2004 to 2010, both clinical-stage biotechnology companies specializing in antibody development. Dr. Morich serves as Executive Chairman of Aphaia Pharma, located in Zug, Switzerland, a clinical-stage biopharmaceutical company working to treat and prevent metabolic disorders such as obesity and diabetes, a position he has held since June 2022. Prior to focusing on board service, Dr. Morich was Chief Commercial Officer at Takeda Pharmaceuticals, a global pharmaceutical company, from 2011 to 2014, and as its Executive Vice President of International Operations from 2010 to 2011. From 2008 to 2010, Dr. Morich served as Chief Executive Officer of NOXXON Pharma AG, a clinical-stage drug development company, and, from 2005 to 2007, as Chief Executive Officer and member of the board of directors of Innogenetics N.V., an international in vitro diagnostics company. Prior to that, Dr. Morich held several positions at Bayer, a global pharmaceutical and life sciences company, including as a member of the Board of Management of Bayer AG, Head of Global Product Development, and Head of Research and Development. Dr. Morich holds an M.D. and Ph.D. from the University of Marburg where he specialized in immunology with a focus on monoclonal antibodies. He also served as a military physician before moving to the private sector. Our Board of Directors believes that Dr. Morich’s experience as a biopharmaceutical professional with more than 35 years of industry experience qualifies him to serve on our Board.

Johan (Thijs) Spoor – Mr. Spoor has been a director of the Company and has served as our Chief Executive Officer since February 5, 2023. Mr. Spoor was appointed as a director in connection with the merger with Viewpoint. From February 2022 until February 2023, Mr. Spoor served as the Chief Executive Officer of Viewpoint. Prior to joining Viewpoint, from October 2019 until June 2021, Mr. Spoor served as the President and CEO of KBP Biosciences, a global, clinical-stage biotechnology company focused on discovering, developing, and commercializing innovative small-molecule therapeutics for the treatment of serious cardiorenal and infectious diseases. While at KBP Biosciences, Mr. Spoor led all operations for major fund-raising and initial public officer (“IPO”) readiness, and drove the company’s small molecule clinical development programs, including toxicology, clinical pharmacology, Phase 2 studies, and discussions with regulators. Prior to KBP BioSciences, from January 2016 until October 2019, Mr. Spoor served as the President and CEO of AzurRx BioPharma, Inc., where he led its Nasdaq IPO, completion of animal studies, regulatory approvals and multiple Phase 2 studies. From September 2010 until December 2015, Mr. Spoor served as the President and CEO of FluoroPharma Medical, Inc., which he took public. He was previously a Health and Life Sciences strategy consultant to Fortune 500 companies at Oliver Wyman. Mr. Spoor previously worked on Wall Street as an equity research analyst at JP Morgan and Credit Suisse where he covered biotechnology stocks and medical device companies. He started his career with formal training in nuclear pharmacy which led to increasing commercial leadership roles in the imaging business at GE Healthcare (Amersham) in cardiology and oncology. Mr. Spoor also serves on the board of directors of Verifi Water, Inc. Mr. Spoor holds a Pharmacy degree from the University of Toronto and an MBA from Columbia Business School. Our Board of Directors believes that Mr. Spoor’s experience as our Chief Executive Officer and experience as an established leader with nearly 30 years of combined executive, broad management and capital markets expertise across healthcare and medical device industries qualifies him to serve on our Board.

Executive Officers

The executive officers serving the Company as of March 22, 2024 were as follows:

Name	Age	Position Held
Johan (Thijs) Spoor[1]	51	Chief Executive Officer, Director
Markus Puhlmann, M.D.	58	Chief Medical Officer
Jonathan Hunt	57	Chief Financial Officer, Co-Principal Financial Officer
Mark Austin	36	Vice President of Finance and Corporate Controller, Co-Principal Financial and Principal Accounting Officer, Corporate Secretary

1. Mr. Spoor's biographical information is incorporated by reference in the Board Membership section of this Part III, Item 10.

Markus Puhlmann, M.D., MBA – Dr. Puhlmann has served as the Chief Medical Officer of Perspective Therapeutics since February 3, 2023. Dr. Puhlmann is a clinical researcher with over 30 years of combined experience in healthcare and the pharmaceutical industry with leadership positions in oncology drug development for solid and liquid tumor indications involving all phases of clinical development. Before joining Perspective Therapeutics, Dr. Puhlmann served as the CD30 Franchise Head of Global Clinical Development at Seagen from 2019 to 2022, where he built programs to explore the immune modulating properties of ADCs for various oncology and non-oncology indications. Prior to his time at Seagen, Dr. Puhlmann joined Merck & Co where he worked on the clinical development of pembrolizumab from 2015 to 2019. After initiating the pembrolizumab GYN program, Dr. Puhlmann focused on the expansion of the GU indications and developed an extensive trial portfolio. In this capacity, Dr. Puhlmann led and contributed to many successful regulatory filings for pembrolizumab across different indications such as urothelial carcinoma, RCC and cervical cancer. In addition, Dr. Puhlmann led the clinical development program for the collaboration of the partnership between Merck and EISAI. Earlier in his career, he held various positions with increasing responsibilities in clinical development and medical affairs at Schering Plough, Bayer and Amgen. Dr. Puhlmann also spent six years at the Surgery Branch, NCI, NIH, where he researched suicide gene therapy approaches including the effects of cytokines on tumor neovasculature. Dr. Puhlmann trained as a surgeon in the UK and Germany and holds a medical degree from the Ludwig Maximilians University, Munich, Germany as well as an Executive MBA from Georgetown's McDonough School of Business.

Jonathan Hunt – Mr. Hunt was appointed as Chief Financial Officer of the Company on December 3, 2018. On February 12, 2019, Mr. Hunt was appointed as Co-Principal Financial Officer. Before joining the Company, Mr. Hunt was Chief Financial Officer at Vivid Learning Systems, an online safety training company, from 2009 to 2018, where he had a central role in its turnaround, including growing revenues and implementing financial policy and process changes that ultimately resulted in the successful sale of the business. Mr. Hunt previously served as Chief Financial Officer of the Company from 2006 to 2009. Prior to that, Mr. Hunt worked at Hypercom Corporation, a global provider of electronic payment solutions and manufacturer of credit card terminals, where he served as Assistant Corporate Controller from 2005 to 2006. Mr. Hunt holds a Bachelor of Science, Accountancy, and a Masters of Accountancy degree from Brigham Young University.

Mark Austin – Mr. Austin has served as Controller, Principal Financial and Accounting Officer, since July 2017 and Co-Principal Financial Officer since February 12, 2019. On September 15, 2020, Mr. Austin was appointed Corporate Secretary. On August 16, 2021, Mr. Austin was appointed Vice President of Finance and Corporate Controller. Prior to joining the Company, Mr. Austin practiced as a Certified Public Accountant with the accounting firm KPMG where he worked from October 2009 to July 2017. At KPMG, Mr. Austin served as a Senior Manager and before that, as a Manager and Senior Associate in Portland, Oregon, where he served as lead for financial statement and internal control audits within the technology industry, including for software and manufacturing companies. While at KPMG, Mr. Austin served as lead manager for a global public company where he supervised, coached and led teams and team members, and researched technical accounting issues relevant to the technology industry. Mr. Austin holds a Bachelor of Science in Commerce degree in Accounting from Santa Clara University, in Santa Clara, California.

There are no agreements or understandings for any officer or director to resign at the request of another person, and none of the officers or directors is acting on behalf of, or will act at the direction of, any other person. There are no family relationships among our executive officers and directors.

Delinquent Section 16(a) Reports

Section 16(a) of the Exchange Act requires the Company's directors and executive officers, and persons who beneficially own more than 10% of a registered class of our equity securities, to file with the Securities and Exchange Commission ("SEC") initial reports of beneficial ownership and reports of changes in beneficial ownership of our Common Stock. The rules promulgated by the SEC under Section 16(a) of the Exchange Act require those persons to furnish us with copies of all reports filed with the SEC pursuant to Section 16(a). The information in this section is based solely upon a review of Forms 3, Forms 4, and Forms 5 received by us.

Based on company records and other information, we believe that all reporting requirements for the year ended December 31, 2023 were complied with by each person who at any time during such year was a director or an executive officer or beneficially owned more than 10% of our common stock, except that one Form 3 filing for Robert Froman Williamson, III was not filed on a timely basis and one Form 4 filing for each of Robert Froman Williamson, III and Lori Woods were not filed on a timely basis.

Code of Ethics

We have adopted a Code of Conduct and Ethics that applies to all of our officers, directors and employees and a separate Code of Ethics for Chief Executive Officer and Senior Financial Officers that supplements our Code of Conduct and Ethics (together, the "Codes").

The Code of Ethics for Chief Executive Officer and Senior Financial Officers is available to the public on our website at http://www.perspectivetherapeutics.com/investors/governance-documents. Each of these Codes comprises written standards that are reasonably designed to deter wrongdoing and to promote the behavior described in Item 406 of Regulation S-K promulgated by the Securities and Exchange Commission. Any amendments to or waivers of the Codes will be promptly posted on our website at www.perspectivetherapeutics.com or in a Report on Form 8-K, as required by applicable laws. We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding any amendment to, or waiver from, a provision of the Codes by posting such information on the website address and location specified above.

Nominating Procedures

There have been no material changes to the procedures by which our stockholders may recommend nominees to the Board of Directors during our last fiscal year.

Audit Committee

The Company has a separately designated standing audit committee established in accordance with Section 3(a)(58)(A) of the Exchange Act. The Charter of the Audit Committee (the "Audit Committee Charter") lists the purposes of the Audit Committee as overseeing the accounting and financial reporting processes of the Company and audits of the financial statements of the Company and providing assistance to the Board of Directors: (1) in monitoring (a) the integrity of the Company's financial statements, (b) the Company's compliance with legal and regulatory requirements, (c) the independent auditor's qualifications and independence, and (d) the performance of the Company's internal audit function, if any, and independent auditor, and (2) preparing the report that the SEC rules require be included in the Company's annual proxy statement.

The current members of the Audit Committee are Ms. Henson (Chair), Mr. Williamson and Dr. Morich. The Audit Committee operates under the Audit Committee Charter, which has been approved by the Board. The Board has determined that Ms. Henson is an "audit committee financial expert" as defined under SEC rules. The Board has affirmatively determined that none of the members of the Audit Committee have a material relationship with the Company that would interfere with the exercise of independent judgment and each of the members of the Audit Committee is "independent" as independence is defined in Section 803B(2) of the NYSE American listing standards and Rule 10A-3 under the Exchange Act.

ITEM 11 – EXECUTIVE COMPENSATION

Our named executive officers for the fiscal year ended December 31, 2023, which consisted of our Chief Executive Officer ("CEO"), our former Chief Executive Officer, and our two most highly compensated executive officers other than our CEO were:

- Johan (Thijs) Spoor, *CEO and Director*;
- Lori Woods, *former CEO*[1]
- Jonathan Hunt, *Chief Financial Officer*; and
- Markus Puhlmann, *Chief Medical Officer*.

1. Ms. Woods served as our Chief Executive Officer until February 3, 2023, upon the closing of our merger with Viewpoint.

The following summary compensation table sets forth information concerning compensation for services rendered in all capacities during the year ended December 31, 2023, the six-month transition period ("TP") ended December 31, 2022, and the fiscal year ended June 30, 2022, earned by or paid to our named executive officers. Messrs. Spoor, Puhlmann and Hunt were not named executive officers during 2022; accordingly, compensation for 2022 (which includes the TP and the fiscal year ended June 30, 2022) is not included in the following table. Salary and other compensation for the named executive officers are set or recommended to the Board by the Compensation Committee.

Summary Compensation Table

Name and principal position	Year	Salary ($)	Bonus ($)[4]	Option awards ($)[1]	Non-equity incentive plan compensation ($)[5]	All other compensation ($)	Total ($)
Johan (Thijs) Spoor	2023	506,269	21,666	603,215	287,500	40,346[6]	1,458,996
CEO and Director							
Markus Puhlmann	2023	420,846	3,333	266,953	184,000	24,961[7]	900,093
Chief Medical Officer							
Jonathan Hunt	2023	389,154	30,000	225,609	172,000	353,200[8]	1,169,963
Chief Financial Officer							
Lori Woods	2023	69,785		-	-	601,947[3]	671,732
Former CEO and Director	TP	249,780		234,764	63,000	3,050[2]	550,594
	2022	439,816		279,648	46,180	3,050[2]	768,694

1. Amounts represent the ASC 718 , *Compensation – Stock Compensation* valuation for the year ended December 31, 2023 and, for Ms. Woods, the transition period and the fiscal year ended June 30, 2022. Options awarded vest in four equal annual installments and expire 10 years after the date of grant. All options were granted at the fair market value of the Company's common stock on the date of grant and the Company used a Black-Scholes methodology as discussed in Note 12, *Share-Based Compensation*, to our financial statements included in this Annual Report on Form 10-K.
2. Amount represents Company 401(k) matching contributions earned during the time period noted.
3. Ms. Woods received $504,000 in severance pay pursuant to the terms of her employment agreement, to be paid out over 12 months that began in February 2023. The amount also includes $12,656 for the continuation of health benefits, $2,791 relating to the Company 401(k) matching contributions, and $82,500 in director fees for her service as a non-employee director commencing on February 3, 2023.
4. Amounts represent sign-on bonuses paid pursuant to employment agreements, effective June 1, 2023.
5. Amounts represent annual performance-based cash bonuses earned in fiscal year 2023.
6. Mr. Spoor received $22,115 related to accrued paid time off pursuant to his employment agreement, effective June 1, 2023, and $18,231 relating to the Company 401(k) matching contributions.
7. Dr. Puhlmann received $17,692 related to accrued paid time off pursuant to his employment agreement, effective June 1, 2023, and $7,269 relating to the Company 401(k) matching contributions.
8. Mr. Hunt received $340,000 related to change in control payments due to the Company's acquisition of Viewpoint pursuant to his employment agreement with Viewpoint, to be paid out over 12 months that began in February 2023. The amount also includes $13,200 relating to the Company 401(k) matching contributions.

Narrative to Summary Compensation Table

Our Compensation Committee typically reviews and discusses management's proposed compensation with the Chief Executive Officer for all executives other than the Chief Executive Officer. Based on those discussions and its discretion, the Compensation Committee then approves the compensation of each executive officer after discussions without members of management present.

Annual Base Salary

The annual base salaries of our named executive officers are determined, approved and reviewed by our Compensation Committee. Annual base salaries are intended to provide a fixed component of compensation to our named executive officers.

On February 3, 2023, at the closing of the acquisition of Viewpoint, Mr. Spoor and Dr. Puhlmann became employees of the Company. Mr. Spoor's annual salary was $510,000 and increased to $575,000 on June 1, 2023. Dr. Puhlmann's annual salary was $450,000 and increased to $460,000 on June 1, 2023.

Prior to becoming employees of the Company, Mr. Spoor was the Chief Executive Officer of Viewpoint and was paid a salary of $39,231 for the period from January 1, 2023 to February 2, 2023, and Dr. Puhlmann was the Chief Medical Officer of Viewpoint and was paid a salary of $34,615 for the period from January 1, 2023 to February 2, 2023. See "*Employment Agreements and Separation Agreement – Current Employment Agreements with our Chief Executive Officer, Chief Financial Officer and Chief Medical Officer*" below for more information.

Prior to her resignation on February 3, 2023, Ms. Woods' annual base salary was $504,000.

Non-Equity Incentive Plan Compensation

We provide for annual cash incentives that reinforces our pay-for-performance approach. This incentive compensation is a short-term incentive program that rewards achievement. Annual incentive awards are awarded at the sole determination of the Compensation Committee (on behalf of the Board) based on the actual and measurable performance of the Company based on a set of corporate objectives for the previous year and are paid in the first quarter of the following year.

For the year ended December 31, 2023, our Chief Executive Officer had an opportunity to earn a bonus of 50% of his annual base salary and each other named executive officer had an opportunity to earn a bonus of 40% of his annual base salary by meeting the target metrics as determined by the Compensation Committee.

For the year ended December 31, 2023, the Compensation Committee determined that 100% of the metrics were achieved for each named executive officer and approved individual performance achievement payouts for such named executive officers in the amounts reflected in the column of the "Summary Compensation Table" above entitled "Non-Equity Incentive Plan Compensation." Ms. Woods did not earn an annual performance bonus for 2023 given her departure in February 2023.

Equity-Based Compensation

Stock options are granted to reward individuals for current performance, as an incentive for future performance and to align the long-term interests of our named executive officers with our stockholders. Stock options are granted under the Company's Second Amended and Restated 2020 Equity Incentive Plan (the "Second Amended and Restated Plan").

Stock options are generally awarded to named executive officers at commencement of employment and annually thereafter after taking into consideration the results of a competitive analysis that benchmarks long-term incentive awards granted to executives in comparable positions at peer companies. The exercise price for each option grant is the closing price of our common stock on the date of grant. Each option grant is for a term of 10 years from the date of grant and the options subject to each grant vest 25% immediately, 25% on the first anniversary of the grant date, 25% on the second anniversary of the grant date, and 25% on the third anniversary of the grant date subject to continued employment with the Company. During the year ended December 31, 2023, Mr. Spoor was granted 3,338,878 options, Mr. Puhlmann was granted 1,477,619 options, and Mr. Hunt was granted 1,248,776 options.

During the year ended December 31, 2023, the six-month transition period ended December 31, 2022, and the fiscal year ended June 30, 2022, no options were repriced or otherwise materially modified.

401(k) Plan

The Company has a 401(k) plan that covers all eligible full-time employees of the Company. Contributions to the 401(k) plan are made by participants to their individual accounts through payroll withholding. Additionally, the 401(k) plan allows the Company to make contributions at the discretion of management. Through December 31, 2022, the Company had not made any contributions to the 401(k) plan. Beginning January 1, 2022, the Company implemented a Company 401(k) match where 50% of the first 4% of the participants' contributions will be matched, up to a maximum company match of 2% of eligible compensation. The Company matching contributions were made during January 2023 for the 401(k) plan year January 1, 2022 to December 31, 2022. Beginning January 1, 2023, the Company changed its 401(k) match for the 401(k) plan where 100% of the first 4% of the participants' contributions will be matched, up to a maximum company match of 4% of eligible compensation. The Company matching contributions were made during January 2024 for the 401(k) plan year January 1, 2023 to December 31, 2023.

From the merger date through December 31, 2023, Viewpoint had a separate 401(k) plan with a company match where 100% of the first 6% of participants contributions were matched, up to a maximum company match of 6% of eligible compensation.

Outstanding Equity Awards at December 31, 2023

The following table sets for certain information concerning equity awards granted to our named executive officers that were outstanding as of December 31, 2023.

	Option awards			
	Equity Incentive Plan awards:			
Name	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option exercise price ($)	Option expiration date
Johan (Thijs) Spoor	834,720[1]	2,504,158[1]	0.24	12/12/2033
	8,454,757[2]	-	0.13	02/13/2032
Lori Woods	-	230,000[3]	0.24	12/12/2033
	156,667[4]	313,333[4]	0.38	02/21/2033
	-	230,000[5]	0.38	02/21/2033
	940,000[6]	-	0.33	07/21/2032
	480,000[7]	-	0.79	07/01/2031
	62,500[8]	-	0.43	06/18/2029
Markus Puhlmann, M.D.	369,405[1]	1,108,214[1]	0.24	12/12/2033
	1,408,069[2]	-	0.13	09/18/2032
Jonathan Hunt	312,194[1]	936,582[1]	0.24	12/12/2033
	475,000[6]	-	0.33	07/21/2032
	320,000[7]	-	0.79	07/21/2031
	150,000[9]	-	0.61	06/23/2030
	150,000[10]	-	0.43	06/18/2029
	150,000[11]	-	0.43	12/03/2028

1. Represents an option award granted on December 12, 2023, one-fourth of which became exercisable on December 12, 2023, one-fourth of which will become exercisable on December 12, 2024, one-fourth of which will become exercisable on December 12, 2025, and the final fourth will become exercisable on December 12, 2026.
2. Represents a fully exercisable option grant assumed in connection with the merger with Viewpoint.
3. Represents an option award granted on December 12, 2023 which will become exercisable on December 12, 2024.
4. Represents an option award granted on February 21, 2023 which become exercisable in equal monthly installments over 36 months.
5. Represents an option award granted on February 21, 2023 which became exercisable on February 21, 2024.
6. Represents an option award granted on July 21, 2022, one-fourth of which became exercisable on July 21, 2022; the remainder of these options awards vested on February 3, 2023 in connection with the merger with Viewpoint as the merger constituted a "Change of Control" under the stock option plan.
7. Represents an option award granted on July 1, 2021, one-fourth of which became exercisable on July 1, 2021, one-fourth of which became exercisable on July 1, 2022, and the remainder of these options awards vested on February 3, 2023 in connection with the merger with Viewpoint as the merger constituted a "Change of Control" under the stock option plan.
8. Represents an option award grant on June 18, 2019, all of which were exercisable as of June 18, 2022.
9. Represents an option award grant on June 23, 2020, one-fourth of which became exercisable on June 23, 2020, one-fourth of which became exercisable on June 23, 2021, one-fourth of which became exercisable on June 23, 2022; the remainder of these options awards vested on February 3, 2023 in connection with the merger with Viewpoint as the merger constituted a "Change of Control" under the stock option plan.
10. Represents an option award grant on June 18, 2019, all of which were exercisable as of June 18, 2022.
11. Represents an option award granted on December 3, 2018, all of which were exercisable as of December 3, 2021.

Employment Agreements and Separation Agreement

The following is a discussion of the material terms of each contract, agreement, plan or arrangement that provides for payments to our named executive officers at, following, or in connection with the resignation, retirement or other termination of such named executive officers, or a change in control of our company or a change in the named executive officer's responsibilities following a change in control, with respect to each named executive officer.

Current Employment Agreements with our Chief Executive Officer, Chief Financial Officer and Chief Medical Officer

The Company has entered into employment agreements with Johan (Thijs) Spoor, Jonathan Hunt, and Dr. Markus Puhlmann (each an "Executive"). The term of each employment agreement began on June 16, 2023.

Under the employment agreements, Mr. Spoor's initial annual salary is set at $575,000, Mr. Hunt's at $430,000 and Dr. Puhlmann's at $460,000, payable in accordance with the Company's standard payroll practices. The employment agreements provide that each Executive may be eligible for periodic increases of his annual salary as determined by the Company in its sole discretion. Further, each Executive's annual salary may not be decreased without his written consent, other than as part of a general arrangement implemented by the Board affecting all of the Company's senior executive officials.

Under Mr. Hunt's previous employment agreement with Isoray, Mr. Hunt was entitled to certain compensation based on the merger between the Company and Viewpoint, as such transaction was a Change of Control, as that term is defined in his previous employment agreement. The execution of Mr. Hunt's current employment agreement did not terminate the Company's obligation regarding such payment until it was fully satisfied.

Additionally, each Executive is eligible for a quarterly and an annual discretionary bonus as periodically established by the Compensation Committee based upon metrics to be established by the Compensation Committee. See "*Non-Equity Incentive Plan Compensation*" above for additional information. Each Executive is also eligible to participate in and receive stock options under the Second Amended and Restated Plan. See "*Equity-Based Compensation*" above for additional information.

Pursuant to the terms of the employment agreements, each Executive is an "at-will" employee. Either the Executive or the Company can terminate his employment with or without cause, for any reason or no reason, and at any time. If an Executive's employment ends due to mutual written agreement with the Company, or an Executive resigns or is terminated for cause, the Company will pay his accrued but unpaid wages and approved but unreimbursed business expenses. If an Executive is terminated without cause or at-will, the Company will pay his accrued but unpaid wages, any bonus announced but not yet paid, approved but unreimbursed business expenses, twelve months' severance based on his then-current base salary, a pro-rated amount of the quarterly and annual discretionary bonuses based on the number of full months the Executive has been employed during the fiscal year of his termination, and COBRA premiums for up to twelve months of coverage. Each Executive is subject to standard confidentiality provisions and a non-compete, non-solicitation covenant for one year following termination of employment.

In the event of a Change of Control (as defined in the employment agreements), if an Executive is not retained by the new company, the Company will pay his accrued but unpaid wages, approved but unreimbursed business expenses, twelve months' severance based on his then-current base salary, a pro-rated amount of the quarterly and annual discretionary bonus based on the number of full months the executive has been employed during the fiscal year of his termination, and COBRA premiums for up to twelve months of coverage. Additionally, regardless of whether an Executive is retained by the new company, the Company will pay the Executive twelve months' salary based on his then-current base salary in accordance with the Company's regular payroll practices. However, if the Executive's employment with the new company terminates within twelve months of the Change of Control, the Executive will not be entitled to the severance pay described above other than in an amount equivalent to such portion of the Change in Control Compensation (as defined in the employment agreements) that the Executive has not then already received. Also, upon a Change of Control, all of the Executive's outstanding unvested equity-based awards, at his option, will vest and become immediately exercisable and unrestricted.

Past Employment Agreement and Separation Agreement with our Former Chief Executive Officer

The Company previously entered into an employment agreement with Lori A. Woods, which was effective as of May 24, 2021, and originally provided for her employment to continue until June 30, 2024, subject to successive one-year renewals.

In connection with her resignation as CEO of the Company, the Company and Lori A. Woods entered into a separation agreement on February 3, 2023, pursuant to which the Company agreed to pay Ms. Woods the amount of $504,000, minus required withholdings, to be paid biweekly in accordance with the Company's regular payroll practice. Additionally, Ms. Woods received payment of health insurance premiums for a period of one year, plus reimbursement for reasonable attorneys' fees. The Company also agreed to accelerate the vesting of 1,007,498 options to purchase shares of common stock of the Company held by Ms. Woods. Subject to the terms of the Company's Amended and Restated 2020 Equity Incentive Plan pursuant to which the options were granted, Ms. Woods will have the time set forth in each vested option to exercise such option before it expires.

The separation agreement contains a release by Ms. Woods of any and all issues and claims she may have against the Company in any way related to her employment with or separation from employment with the Company, including a release of any liabilities and claims under any local, state, or federal statutes, wage claims, and claims of discrimination. The separation agreement does not impact any future claims that Ms. Woods may raise during her tenure as Chairperson of the Board, nor does it serve to release any claims she may have for advances of fees and costs and indemnity under any applicable contract of insurance, corporate policy, or operation of law.

Role of the Compensation Consultant

Pursuant to its Charter, the Compensation Committee has the authority to engage independent compensation consultants and other professionals to assist in the design, formulation, analysis, and implementation of compensation programs for our executive officers. In 2023, the Committee engaged Anderson Pay Advisors to review various elements of the Company's overall compensation program, including performing reviews of the Company's 2023 executive compensation plans.

Role of Benchmarking and Peer Groups

As part of our pay philosophy, our executive compensation program is designed to attract, motivate and retain our executives in an increasingly competitive market. To this end, in 2023 we evaluated industry-specific and general market compensation practices and trends to ensure that our program features and named executive officer pay opportunities remain appropriately competitive. When determining salaries, target bonus opportunities and long-term incentive grants for our named executive officers, the Compensation Committee considers the performance of the Company and the individual, the nature of an individual's role within the Company, experience in the officer's current role, as well as input from its independent compensation consultant, among other variables.

In 2023, to facilitate its review and determination of executive compensation, the Committee engaged Anderson Pay Advisors to conduct a comprehensive competitive review of our executive compensation program. In connection with this review, Anderson Pay Advisors identified a peer group comprised of pharmaceutical and biotechnology companies roughly similar to the Company in market capitalization and focused on cancer treatments to the extent possible. The peer group consists of the 20 companies listed below:

Aadi Bioscience	Actinium Pharmaceuticals	Alaunos therapeutics
Capricor Therapeutics, Inc.	Chimerix	Cytosorbents Corp
DermTech	Eiger Biopharmaceuticals	Fusion Pharmaceuticals
Graphite Bio	Ikena Oncology	ORIC Pharmaceuticals
Pieris Pharmaceuticals	Point Biopharma	Prelude Therapeutics
Sensus Healthcare	Shattuck Labs	Spectrum Pharmaceuticals
UroGen Pharma	Y-mAbs Therapeutics	

The median market capitalization of the peer group was $166.3 million, and Perspective Therapeutics' market capitalization was roughly $105.9 million at the time of the analysis.

Based on the Anderson Pay Advisors data and performance metrics, the Compensation Committee of the Company increased the annual base salary for Thijs Spoor, our Chief Executive Officer and Director, to $575,000 (a 12.7% increase), for Markus Puhlmann, our Chief Medical Officer, to $460,000 (a 2.2% increase) and for Jonathan Hunt, our Chief Financial Officer, to $430,000 (a 26.5% increase), effective June 1, 2023.

Director Compensation

In February 2023, the Compensation Committee approved changes to the non-employee director compensation program to provide: (i) a $60,000 annual cash retainer; (ii) an additional annual cash retainer of $30,000 for service as Chairperson of the Board of Directors; and (iii) additional annual cash retainers for committee chairs equal to $15,000. Each non-employee director was granted 470,000 stock options for a term of 10 years from the date of grant, which vest monthly over 36 months from the date of grant. Additionally, each non-employee director was granted 230,000 stock options for a term of 10 years from the date of grant and the options vested 100% on the first anniversary of the grant date. Employee directors do not receive any compensation for their service on the Board.

The following table sets forth information concerning the compensation of the non-employee directors of the Company who served for all or a portion of the year ended December 31, 2023. Johan (Thijs) Spoor, our CEO and a director, did not receive any compensation for his service on the Board in 2023. Lori Woods, our former CEO, did not receive any compensation for her service as a member of our Board during 2023 prior to her cessation as an employee of the Company on February 3, 2023. Mr. Spoor and Ms. Woods' compensation for services as employees and Ms. Woods' compensation for services as Chairperson of our Board for fiscal year 2023 are presented in "*Executive Officer Compensation – Summary Compensation Table*" above.

Name	Fees earned or paid in cash ($)	Option awards ($)(1)(2)	Total ($)
Robert Froman Williamson, III	68,750	251,311	320,061
Frank Morich, M.D., Ph.D.	68,750	251,311	320,061
Heidi Henson	43,750	346,947	390,697
Alan Hoffman	5,493	-	5,493
Dr. Philip Vitale	5,493	-	5,493
Michael McCormick	25,000	251,311	276,311

1. As of December 31, 2023, the aggregate number of shares of Common Stock subject to outstanding options held by our non-employee directors were 930,000 for each of Mr. Williamson and Ms. Henson and 2,037,471 for Dr. Morich.
2. The amounts reported in the "Option Awards" column represent the aggregate grant date fair value of stock options awarded during the year ended December 31, 2023, calculated in accordance with the provisions of FASB ASC Topic 718. Such grant date fair value does not take into account any estimated forfeitures. The assumptions used in calculating the grant date fair value of the options reported in this column are set forth in Note 12, *Share-Based Compensation*, to our financial statements included in this Annual Report on Form 10-K. The amount reported reflects the accounting cost for the options and does not correspond to the actual economic value that may be received by the non-employee director upon the exercise of the options or any sale of the underlying shares of our Common Stock.

Risks Related to Compensation Policies and Practices

The Compensation Committee has considered whether our overall compensation program for employees in 2023 creates incentives for employees to take excessive or unreasonable risks that could materially harm our Company. We believe that several features of our compensation policies for management employees appropriately mitigate such risks, including a mix of long- and short-term compensation incentives that we believe is properly weighted, our Incentive Compensation Recovery Policy and the uniformity of compensation practices across our Company, which the Compensation Committee regards as setting an appropriate level of risk taking for us. We also believe our internal legal and financial controls appropriately mitigate the probability and potential impact of an individual employee committing us to a harmful long-term business transaction in exchange for short-term compensation benefits.

Recoupment Policy

In order to align further management's interests with the interests of our stockholders and to support good corporate governance practices, the Board has adopted a recoupment policy. Subject to rules of the SEC and NYSE American, in the event that we are required to prepare an accounting restatement due to the material noncompliance with any financial reporting requirement under the federal securities laws, the Compensation Committee has the authority to determine the appropriate means of recovering from any of our current or former executive officers, as determined in accordance with such rules, who received performance-based compensation (including stock options awarded as compensation) during the period for which we are required to prepare an accounting restatement, based on the erroneous data, in excess of what would have been paid to the executive officer under the accounting restatement. The committee may also take any other actions authorized by our Incentive Compensation Recovery Policy.

ITEM 12 – SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The following tables set forth certain information regarding the beneficial ownership of the Company's common stock and preferred stock as of March 22, 2024 for (a) each person known by the Company to be a beneficial owner of 5% or more of the outstanding common stock of the Company, (b) each named executive officer, director and nominee for director of the Company, and (c) directors and executive officers of the Company as a group. As of March 22, 2024, the Company had 586,915,977 shares of common stock outstanding. Except as otherwise indicated below, the address for each listed beneficial owner is c/o Perspective Therapeutics, Inc., 2401 Elliott Avenue, Suite 320, Seattle, WA 98121.

Name of Beneficial Owner	Common Shares Owned	Common Stock Options [1]	Common Stock Warrants[3]	Percent of Class [2]
Named Executive Officers and Directors:				
Johan (Thijs) Spoor	107,572	9,289,477	-	1.58%
Lori Woods	1,567,814	1,908,335	-	*
Heidi Henson	-	143,612	-	*
Robert F. Williamson, III	342,424	425,835	-	*
Frank Morich, M.D., Ph.D.	-	1,533,306	-	*
Markus Puhlmann	1,375,425	1,777,474	-	*
Jonathan Hunt	316,710	1,557,194	33,653	*
Directors and Executive Officers as a group (eight persons)	3,763,975	17,229,983	43,268	3.48%
Greater than 5% Stockholders:				
Lantheus Alpha Therapy, LLC[4]	116,773,394			19.90%

* Less than one percent.

1. Only includes those common stock options that could be exercised for common stock within 60 days after March 22, 2024.
2. Percentage ownership is based on 586,915,977 shares of Common Stock outstanding on March 22, 2024. Shares of Common Stock subject to stock options which are currently exercisable or will become exercisable within 60 days after March 22, 2024 are deemed outstanding for computing the percentage ownership of the person or group holding such options but are not deemed outstanding for computing the percentage ownership of any other person or group.
3. Purchased pursuant to a public offering that closed on October 22, 2020. Each share of common stock purchased included one-half of a warrant. Each whole warrant is exercisable to purchase one share of common stock at an exercise price of $0.57 per share. Each warrant is immediately exercisable and will expire October 22, 2025.
4. Based on a Schedule 13D/A filed by Lantheus Holdings, Inc. ("Lantheus Holdings") and Lantheus Alpha Therapy, LLC ("Lantheus Alpha") on March 8, 2024. Represents shares directly held by Lantheus Alpha, a wholly owned direct subsidiary of Lantheus Holdings. Lantheus Holdings and Lantheus Alpha may each be deemed to have shared voting and dispositive power over all of the shares. The address of Lantheus Alpha is 201 Burlington Road, South Building, Bedford, MA 01730.

Securities Authorized for Issuance Under Equity Compensation Plans

On June 15, 2017, the Company's Stockholders approved the Company's 2017 Equity Incentive Plan (the “2017 Incentive Plan”). The 2017 Incentive Plan allows the Board of Directors to grant up to 4,000,000 shares of common stock to directors, officers, employees and consultants in a combination of equity incentive forms including incentive stock options ("ISOs"), non-qualified stock options ("NQSOs"), stock appreciation rights ("SARs") or restricted shares of common stock.

On December 7, 2021, the Company's stockholders approved the Company's Amended and Restated 2020 Equity Incentive Plan (the “Amended 2020 Incentive Plan”), which amended and restated the Company's 2020 Equity Incentive Plan in its entirety. The Amended 2020 Incentive Plan increased the number of shares of common stock available for the grant of awards under the plan by 10,000,000, to a total of 16,000,000 available shares, removed the limit on the number of incentive stock options that can be granted under the plan, and authorized the granting of restricted stock units ("RSUs") under the plan. On December 13, 2022, the Company's stockholders approved the Company's Amended and Restated 2020 Equity Incentive Plan (“Amended and Restated 2020 Incentive Plan”), which increased the number of shares of common stock available for grant of awards under the plan by 30,000,000, to a total of 46,000,000 available shares. Under the Amended and Restated 2020 Incentive Plan, the Board of Directors may grant to directors, officers, employees and consultants various forms of equity, including ISOs, NQSOs, SARs and RSUs. On October 6, 2023, the Company’s stockholders approved the Company’s Second Amended and Restated 2020 Equity Incentive Plan (the “Second Amended and Restated Plan”) which, among other things, (a) increased the aggregate number of shares of common stock authorized for issuance under the Second Amended and Restated Plan by 10,000,000 for a total of 56,000,000 shares of common stock, (b) implemented an “evergreen” provision, which contemplates that on the first day of each fiscal quarter, unless the Board of Directors of the Company (the “Board”) determines otherwise, the number of shares of common stock authorized for issuance under the Second Amended and Restated Plan will be adjusted to be (subject to adjustment in the event of stock splits and other similar events) the greater of 56,000,000 shares of common stock or 13% of the number of shares of common stock issued and outstanding on the last day of the immediately preceding fiscal quarter, and (c) extended the term of the Second Amended and Restated Plan such that it will be terminated, if not earlier terminated, on the 10-year anniversary of October 6, 2023.

Options granted under both plans have a 10-year maximum term, an exercise price equal to at least the fair market value of the Company’s common stock (based on the closing share price of the common stock on the NYSE American on the date of the grant), and with varying vesting periods as determined by the Board.

As of December 31, 2023, the following options had been granted under the Second Amended and Restated Plan, the 2017 Incentive Plan, and prior stock option plans that have now expired.

Plan Category	Number of securities to be issued on exercise of outstanding options, warrants, and rights (a)	Weighted-average exercise price of outstanding options, warrants, and rights (b)	Number of securities remaining available for future issuance under equity compensation Plans (excluding securities in columns (a) and (b))
Equity compensation plans approved by securityholders	50,844,425[1]	$ 0.32	5,709,265[2]
Equity compensation plans not approved by securityholders	288,000[3]	$ 1.45	-
Total	51,132,425	$ 0.33	5,709,265

1. Consists of shares underlying stock options had been granted under our Second Amended and Restated 2020 Equity Incentive Plan, the 2017 Incentive Plan and under prior stock option plans that have now expired.
2. Consists of 5,574,790 shares of common stock reserved for future issuance under our Second Amended and Restated 2020 Equity Incentive Plan, including the 10,000,000 additional shares approved by our stockholders on October 6, 2023, and 134,475 shares of common stock reserved for future issuance under our 2017 Incentive Plan.
3. Consists of 288,000 shares of common stock underlying stock options had been granted under our 2005 Stock Option Plan and 2006 Director Stock Option Plan. Both of these plans are now expired. For a description of these plans, please see Note 10 to the consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended June 30, 2015.

ITEM 13 – CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Review, Approval or Ratification of Transactions with Related Persons

The Company's Code of Ethics emphasizes the importance of avoiding situations or transactions in which personal interests may interfere with the best interests of the Company or its stockholders. In addition, the Company's general corporate governance practice includes Board-level discussion and assessment of procedures for discussing and assessing relationships, including business, financial, familial and nonprofit, among the Company and its officers and directors or their immediate family members, to the extent that they may arise. The Board and the Audit Committee review any transaction with an officer or director or their immediate family members to determine, on a case-by-case basis, whether a conflict of interest exists. The Board ensures that all directors voting on such a matter have no interest in the matter and discusses the transaction with counsel as the Board deems necessary. The Board will generally delegate the task of discussing, reviewing and approving transactions between the Company and any related persons to the Audit Committee. The Audit Committee approved all of the below transactions.

Transactions with Related Persons

The following includes a summary of transactions since January 1, 2022 to which we have been a party in which the amount involved exceeded or will exceed the lesser of $120,000 and one percent of the average of our total assets at year end for the last two completed fiscal years, and in which any of our directors, director nominees, executive officers or beneficial owners of more than 5% of our common stock, or any members of their immediate family, had or will have a direct or indirect material interest, other than compensation arrangements that we have entered into with our executive officers and directors.

As of March 22, 2024, Lantheus Alpha Therapy, LLC, a Delaware limited liability company and wholly owned subsidiary of Lantheus Holdings, Inc. ("Lantheus") owned approximately 19.90% of our outstanding common shares and is a related person" for purposes of the SEC rules.

See the section entitled "Agreements and Collaborations – Lantheus Agreements" in Part I, Item I of this Form 10-K for a description of certain transactions between us and Lantheus.

In addition, Lantheus participated the March 2024 Private Placement, described more fully in the section entitled "Agreements and Collaborations – Equity Financings" in Part I, Item I of this Form 10-K. In the March 2024 Private Placement, Lantheus purchased 60,431,039 shares of Common Stock for an aggregate purchase price of $57.4 million.

During the year ended June 30, 2022, the Company engaged with SphereRx, LLC, owned by Lori Woods, our Chairperson and board member, to assist in making payments to suppliers in Russia as our bank had an internal policy that it could not send wires to Russia due to the ongoing Russia-Ukrainian conflict. There were four payments totaling $2,389,787. The Company reimbursed SphereRx, LLC for wire fees. There was no other consideration or compensation related to these payments.

Director Independence

Using the standards of the NYSE American, the Company's Board has determined that Ms. Henson, Mr. Williamson, and Dr. Morich each qualify under such standards as an independent director. Ms. Henson, Mr. Williamson, and Dr. Morich each meet the NYSE American listing standards for independence both as a director and as a member of the Audit Committee. The Board has affirmatively determined that each of the members of the Compensation Committee, except for Ms. Woods, is "independent" as independence is defined in Section 805(c) of the NYSE American listing standards and Rule 10C-1 under the Exchange Act. Even though Ms. Woods is not independent due to her service in the capacity of CEO until her resignation on February 3, 2023, the Board has determined she is able to comply with Section 805(b) of the NYSE American listing standards, which establishes criteria permitting her to serve as a non-independent director on the Compensation Committee. No other directors are independent under these standards.

None of our existing directors were disqualified from independent status under the objective standards of the NYSE American other than Mr. Spoor, who did not qualify as he is an employee director and Ms. Woods, who did not qualify as she was an employee of the Company within the last three years. In reviewing the subjective criteria of "any relationship that would interfere with the exercise of independent judgment" in carrying out the responsibilities of a director, the Board determined that all directors, other than Mr. Spoor and Ms. Woods, met this criterion well.

The Company did not consider any other relationship or transaction between itself and these independent directors not already disclosed in this Report in making this independence determination.

ITEM 14 – PRINCIPAL ACCOUNTANT FEES AND SERVICES

The Company paid or accrued the following fees in the periods presented below to its principal accountant, Assure CPA, LLC (in thousands):

	For the year ended December 31, 2023	Six months ended December 31, 2022	For the year ended June 30, 2022
Audit fees	$ 110	$ 81	$ 80
Audit-related fees	-	-	-
Tax fees	23	4	14
All other fees	21	-	4
Totals	$ 154	$ 85	$ 98

Audit fees include fees for the audit of our annual financial statements, reviews of our quarterly financial statements, and related consents for documents filed with the SEC.

There were no audit-related fees for the periods presented above.

Tax fees include fees for the preparation of our federal and state income tax returns.

All other fees are from consulting costs created by the review of documents related to equity offerings.

As part of its responsibility for oversight of the independent registered public accountants, the Audit Committee has established a pre-approval policy for engaging audit and permitted non-audit services provided by our independent registered public accountants, Assure CPA, LLC. In accordance with this policy, each type of audit, audit-related, tax and other permitted service to be provided by the independent auditors is specifically described and each such service, together with a fee level or budgeted amount for such service, is pre-approved by the Audit Committee. The Audit Committee has delegated authority to its Chairman to pre-approve additional non-audit services (provided such services are not prohibited by applicable law) up to a pre-established aggregate dollar limit. All services pre-approved by the Chairman of the Audit Committee must be presented at the next Audit Committee meeting for review and ratification. All of the services provided by Assure CPA, LLC, described above were approved by our Audit Committee.

The Company's principal accountant, Assure CPA, LLC, did not engage any other persons or firms other than the principal accountant's full-time, permanent employees.

PART IV

ITEM 15 – EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

1. For a list of the financial statements included herein, see Index to the financial statements of this Form 10-K, incorporated into this Item by reference.
2. Financial statement schedules have been omitted because they are either not required or not applicable or the information is included in the financial statements or the notes thereto.
3. Exhibits:

Exhibit #	Description
2.1	Plan of Conversion, incorporated by reference to Appendix A of the Form Def 14A filed on November 9, 2018.
2.2	Agreement and Plan of Merger, dated September 27, 2022, incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed with the SEC on September 28, 2022.
2.3	First Amendment to Agreement and Plan of Merger, dated October 21, 2022, incorporated by reference to Exhibit 2.1 of the Form 8-K filed on October 24, 2022.
2.4#	Asset Purchase Agreement, dated December 7, 2023, by and among Isoray Medical, Inc., GT Medical Technologies, Inc., and Perspective Therapeutics, Inc., incorporated by reference to Exhibit 2.1 of the Form 8-K filed on December 14, 2023.
3.1	Amended and Restated Certificate of Incorporation of Perspective Therapeutics, Inc. as of February 14, 2023, incorporated by reference to Exhibit 3.1 of the Form 8-K filed on February 16, 2023.
3.2	Amended and Restated Bylaws of Perspective Therapeutics, Inc. as of February 14, 2023, incorporated by reference to Exhibit 3.2 of the Form 8-K filed on February 16, 2023.
4.1*	Description of Securities.
4.2	Form of Warrant, dated July 11, 2018, incorporated by reference to Exhibit 10.3 of the Form 8-K filed on July 11, 2018.
4.3	Form of Warrant, incorporated by reference to Exhibit A of Exhibit 10.1 of the Form 8-K filed on October 22, 2020 .
4.4	Form of Pre-Funded Warrant, incorporated by reference to Exhibit 4.1 of the Form 8-K filed on January 22, 2024.
10.1***	Isoray, Inc. 2017 Equity Incentive Plan (incorporated by reference to Appendix B to Isoray, Inc.'s Definitive Proxy Statement on Schedule 14A, filed on May 17, 2017).
10.2***	Form of Isoray, Inc. Stock Option Agreement and Notice of Grant of Stock Option, by and between each grantee thereunder and Isoray, Inc., incorporated by reference to Exhibit 10.1 of the Form 8-K filed on June 30, 2017.
10.3***	Isoray, Inc. Stock Option Agreement and Notice of Grant of Stock Option to Lori A. Woods, dated June 13, 2018, incorporated by reference to Exhibit 10.2 of the Form 8-K filed on June 19, 2018.
10.4***	Amended and Restated 2020 Equity Incentive Plan, incorporated by reference to Exhibit 10.3 of the Form 8-K filed on December 14, 2022.
10.5	Form of Registration Rights and Lock-Up Agreement dated as of January 31, 2023, incorporated by reference to Exhibit 10.1 to the Form 8-K filed on February 6, 2023.
10.6*	Form of Indemnification Agreement.
10.7	Exclusive License Agreement between Viewpoint Molecular Targeting, Inc. and the University of Iowa Research Foundation, dated June 5, 2018, incorporated by reference to Exhibit 10.4 of the Form 10-Q filed on May 15, 2023.
10.8	Amendment #1 to the Exclusive License Agreement between Viewpoint Molecular Targeting, Inc. and the University of Iowa Research Foundation, dated July 31, 2018, incorporated by reference to Exhibit 10.5 of the Form 10-Q filed on May 15, 2023.
10.9	Amendment #2 to the Exclusive License Agreement between Viewpoint Molecular Targeting, Inc. and the University of Iowa Research Foundation, dated November 13, 2019, incorporated by reference to Exhibit 10.6 of the Form 10-Q filed on May 15, 2023.
10.10	Amendment #3 to the Exclusive License Agreement between Viewpoint Molecular Targeting, Inc. and the University of Iowa Research Foundation, dated January 30, 2020, incorporated by reference to Exhibit 10.7 of the Form 10-Q filed on May 15, 2023.
10.11	Amendment #4 to the Exclusive License Agreement between Viewpoint Molecular Targeting, Inc. and the University of Iowa Research Foundation, dated June 11, 2020, incorporated by reference to Exhibit 10.8 of the Form 10-Q filed on May 15, 2023.
10.12	Know-How License Agreement between Viewpoint Molecular Targeting, Inc. and Mayo Foundation for Medical Education and Research, dated February 22, 2022, incorporated by reference to Exhibit 10.9 of the Form 10-Q filed on May 15, 2023.
10.13	U.S. Department of Energy Order Form between Viewpoint Molecular Targeting, Inc. and Oak Ridge National Laboratory, dated January 1, 2021, incorporated by reference to Exhibit 10.10 of the Form 10-Q filed on May 15, 2023.
10.14	Commercial Real Estate Purchase Agreement between Viewpoint Molecular Targeting, Inc. and PMP Properties, LLC, dated August 16, 2022, as amended, incorporated by reference to Exhibit 10.12 of the Form 10-Q filed on May 15, 2023.
10.15	Promissory Note between Viewpoint Molecular Targeting, Inc. and Hills Bank and Trust Company, dated December 29, 2022, incorporated by reference to Exhibit 10.13 of the Form 10-Q filed on May 15, 2023.

10.16***	Form of Executive Employment Agreement, dated effective May 24, 2021, incorporated by reference to Exhibit 10.1 of the Form 8-K filed on May 28, 2021.
10.17	Separation Agreement between Perspective Therapeutics, Inc., Isoray Medical, Inc. and Lori A. Woods, dated February 3, 2023, incorporated by reference to Exhibit 10.2 of Form 8-K filed on February 6, 2023.
10.18	Separation Agreement between Perspective Therapeutics, Inc., Isoray Medical, Inc. and William Cavanagh , effective March 10, 2023, incorporated by reference to Exhibit 10.1 of the Form 8-K filed on March 13, 2023.
10.19***	Executive Employment Agreement, dated June 16, 2023, by and between the Company and Johan Spoor , incorporated by reference to Exhibit 10.1 of the Form 8-K filed on June 23, 2023.
10.20***	Executive Employment Agreement, dated June 16, 2023, by and between the Company and Jonathan Hunt, incorporated by reference to Exhibit 10.2 of the Form 8-K filed on June 23, 2023.
10.21***	Executive Employment Agreement, dated June 16, 2023, by and between the Company and Dr. Markus Puhlmann, incorporated by reference to Exhibit 10.3 of the Form 8-K filed on June 23, 2023.
10.22	Separation Agreement between Perspective Therapeutics, Inc., and Jennifer Streeter, effective August 28, 2023, incorporated by reference to Exhibit 10.1 of the Form 10-Q filed on November 14, 2023.
10.23	At Market Issuance Sales Agreement, dated as of November 17, 2023, by and among Perspective Therapeutics, Inc. and Oppenheimer & Co. Inc., B. Riley Securities, Inc. and JonesTrading Institutional Services LLC, incorporated by reference to Exhibit 1.2 of the Form S-3 Registration Statement filed on November 17, 2023.
10.24	Investment Agreement, dated March 4, 2024, incorporated by reference to Exhibit 10.1 of the Form 8-K filed on March 6, 2024.
10.25	Placement Agency Agreement, dated March 4, 2024, by and among Perspective Therapeutics, Inc. and Oppenheimer & Co. Inc, incorporated by reference to Exhibit 10.2 of the Form 8-K filed on March 6, 2024.
10.26*	Registration Rights Agreement, dated January 22, 2024, by and between the Company and Lantheus Alpha Therapy, LLC.
10.27	Registration Rights Agreement, dated March 6, 2024, incorporated by reference to Exhibit 10.3 of the Form 8-K filed on March 6, 2024.
10.28*+#	License Agreement, by and between Perspective Therapeutics, Inc. and Mayo Foundation for Medical Education and Research, dated December 31, 2023.
10.29+#	Investment Agreement, by and between Perspective Therapeutics, Inc. and Lantheus Alpha Therapy, LLC, dated January 8, 2024, incorporated by reference to Exhibit 10.1 of the Form 8-K/A filed on January 17, 2024.
10.30+	Asset Purchase Agreement, by and between Perspective Therapeutics, Inc. and Progenics Pharmaceuticals, Inc., dated January 8, 2024, incorporated by reference to Exhibit 10.2 of the Form 8-K/A filed on January 17, 2024.
10.31+#	Option Agreement, by and between Perspective Therapeutics, Inc. and Lantheus Alpha Therapy, LLC, dated January 8, 2024, incorporated by reference to Exhibit 10.3 of the Form 8-K/A filed on January 17, 2024.
21.1*	Subsidiaries of the Company.
23.1*	Consent of Assure CPA, LLC.
31.1*	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Co-Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.3*	Certification of Co-Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32**	Certification of Principal Executive Officer and Co-Principal Financial Officers Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
97*	Incentive Compensation Recovery Policy.
101.INS*	Inline XBRL Instance Document.
101.SCH*	Inline XBRL Taxonomy Extension Schema Document.
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

*	Filed Herewith
**	Furnished Herewith
***	Denotes Management Contract or Compensatory Plan or Arrangement
+	Certain portions of this exhibit (indicated by asterisks) have been omitted pursuant to Item 601(b)(10)(iv) of Regulation S-K.
#	Certain schedules and exhibits have been omitted pursuant to Item 601(a)(5) of Regulation S-K. The Company will furnish supplementally a copy of any omitted schedule or exhibit to the Securities and Exchange Commission upon request. The Company may request confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended, for any schedules or exhibits so furnished.

ITEM 16 – FORM 10-K SUMMARY

None.

SIGNATURES

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

Dated: March 28, 2024

PERSPECTIVE THERAPEUTICS, INC., a Delaware corporation

By /s/ Johan (Thijs) Spoor
Johan (Thijs) Spoor, Chief Executive Officer, Director

By /s/ Jonathan Hunt
Jonathan Hunt, Chief Financial Officer,
Co-Principal Financial Officer

By /s/ Mark J. Austin
Mark J. Austin, Vice President of Finance and Corporate Controller,
Co-Principal Financial and Principal Accounting Officer, Corporate Secretary

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

Dated: March 28, 2024

/s/ Johan (Thijs) Spoor
Johan (Thijs) Spoor, Chief Executive Officer, Director

/s/ Jonathan Hunt
Jonathan Hunt, Chief Financial Officer,
Co-Principal Financial Officer

/s/ Mark J. Austin
Mark J. Austin, Vice President of Finance and Corporate Controller,
Co-Principal Financial and Principal Accounting Officer, Corporate Secretary

/s/ Lori A. Woods
Lori A. Woods, Chairperson

/s/ Heidi Henson
Heidi Henson, Director

/s/ Robert F. Williamson III
Robert F. Williamson III, Director

/s/ Frank Morich
Frank Morich, Director

Perspective Therapeutics, Inc. and Subsidiaries
Index to Consolidated Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the board of directors of Perspective Therapeutics, Inc. and Subsidiaries

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Perspective Therapeutics and Subsidiaries ("the Company") as of December 31, 2023 and 2022, and the related consolidated statements of operations, changes in stockholders' equity and cash flows for the year ended December 31, 2023, the six-month period ended December 31, 2022, and the year ended June 30, 2022, and the related notes (collectively referred to as the consolidated 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 2022, and the results of its operations and its cash flows for the year ended December 31, 2023, the six-month period ended December 31, 2022, and the year ended June 30, 2022 in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

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

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

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

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Acquisition of Viewpoint Molecular Targeting, Inc - Valuation of In-process Research and Development Intangible Assets

As disclosed in Note 3 to the consolidated financial statements, during 2023, the Company completed the acquisition of Viewpoint Molecular Targeting, Inc. for total consideration of approximately $68.6 million. The transaction was accounted for as business combination. Of the acquired net assets, in-process research and development ("IPR&D") intangible asset of $50.0 million was recorded. The fair value of acquired IPR&D intangible asset was determined using the multi-period excess earnings method. The significant assumptions used to estimate the fair value of the IPR&D intangible asset included forecasted cash flows and discount rates.

Auditing the Company's valuation of the IPR&D intangible asset was complex and required significant auditor judgment due to the significant estimation uncertainty in evaluating certain assumptions required to estimate the fair value. The fair value measurement was sensitive to underlying assumptions including certain assumptions that form the basis of the forecasted results (e.g., operating income and growth rates). The significant assumptions are forward-looking and could be affected by future economic and market conditions.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included evaluating:

i. Management's processes relating to the acquisition accounting and management's valuation of the IPR&D intangible asset;
ii. The appropriateness of the valuation method;
iii. The reasonableness of the significant assumptions;
iv. The results of sensitivity analysis on the fair value of the IPR&D intangible asset from changes in the assumptions; and
v. The reasonableness of certain forecasted cash flows assumptions which included consideration of:
    a. company specific factors of the acquired business;
    b. consistency with external market and industry data; and
    c. whether the assumptions were consistent with evidence obtained in other areas of the audit.

/s/ Assure CPA, LLC

We have served as the Company's auditor since 2005.

Spokane, Washington
March 28, 2024

Perspective Therapeutics, Inc. and Subsidiaries
Consolidated Balance Sheets
(In thousands, except shares)

	December 31, 2023	December 31, 2022
ASSETS		
Current assets:		
Cash and cash equivalents	$ 9,238	$ 20,993
Short-term investments	-	22,764
Accounts receivable, net	1,165	1,363
Note receivable	-	6,109
Prepaid expenses and other current assets	1,133	443
Current assets held for sale - discontinued operations	5,301	1,543
Total current assets	16,837	53,215
Noncurrent assets:		
Property and equipment, net	5,576	371
Right of use asset, net	747	-
Restricted cash	182	182
Intangible assets: In-process research and development	50,000	-
Goodwill	24,062	-
Other assets, net	487	175
Noncurrent assets of discontinued operations	-	4,148
Total assets	$ 97,891	$ 58,091
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	$ 6,107	$ 1,541
Lease liability	46	-
Accrued protocol expense	322	233
Accrued radioactive waste disposal	480	571
Accrued payroll and related taxes	3,128	212
Accrued vacation	460	285
Note payable, current	49	-
Current liabilities of discontinued operations	5,072	276
Total current liabilities	15,664	3,118
Noncurrent liabilities:		
Lease liability	780	-
Notes payable	1,676	-
Noncurrent liabilities of discontinued operations	-	331
Deferred tax liability	4,592	-
Total liabilities	22,712	3,449
Commitments and contingencies (Note 16)		
Stockholders' equity:		
Preferred stock, $.001 par value; 7,000,000 shares authorized: Series B: 5,000,000 shares allocated; no shares issued and outstanding	-	-
Common stock, $.001 par value; 750,000,000 shares authorized; 281,809,852 and 142,112,766 shares issued and outstanding	282	142
Additional paid-in capital	227,337	160,432
Accumulated deficit	(152,440)	(105,932)
Total stockholders' equity	75,179	54,642
Total liabilities and stockholders' equity	$ 97,891	$ 58,091

The accompanying notes are an integral part of these consolidated financial statements.

Perspective Therapeutics, Inc. and Subsidiaries
Consolidated Statements of Operations
(Dollars and shares in thousands, except for per share amounts)

	Year ended December 31, 2023	Six months ended December 31, 2022	Year ended June 30, 2022
Grant revenue	$ 1,434	$ -	$ -
Gross profit	1,434	-	-
Operating expenses:			
Research and development	21,311	468	850
General and administrative	21,064	4,848	5,569
Loss on disposal of property and equipment	-	305	-
Total operating expenses	42,375	5,621	6,419
Operating loss	(40,941)	(5,621)	(6,419)
Non-operating income:			
Interest income	934	561	119
Interest expense	(84)	-	-
Other income	2	-	-
Equity in loss of affiliate	(17)	-	-
Total non-operating income	835	561	119
Net loss from continuing operations	(40,106)	(5,060)	(6,300)
Net loss from discontinued operations	(9,053)	(2,275)	(972)
Net loss before income taxes	(49,159)	(7,335)	(7,272)
Deferred income tax benefit	2,651	-	-
Net loss	$ (46,508)	$ (7,335)	$ (7,272)
Basic and diluted loss per share:			
Loss from continuing operations	$ (0.14)	$ (0.04)	$ (0.04)
Loss from discontinued operations	(0.03)	(0.01)	(0.01)
Basic and diluted loss per share	$ (0.17)	$ (0.05)	$ (0.05)
Weighted average shares used in computing net loss per share:			
Basic and diluted	267,643	142,103	141,987

The accompanying notes are an integral part of these consolidated financial statements.

Perspective Therapeutics, Inc. and Subsidiaries
Consolidated Statements of Changes in Stockholders' Equity
(In thousands, except shares)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total
	Shares	Amount			
Balances at June 30, 2021	141,915,266	$ 142	$ 158,589	$ (91,325)	$ 67,406
Issuance of common stock pursuant to exercise of options	125,000	-	56	-	56
Share-based compensation	-	-	1,087	-	1,087
Net loss for the year	-	-		(7,272)	(7,272)
Balances at June 30, 2022	142,040,266	$ 142	$ 159,732	$ (98,597)	$ 61,277
Issuance of common stock pursuant to exercise of options	72,500	-	28	-	28
Share-based compensation	-	-	672	-	672
Net loss for the six months ended	-	-	-	(7,335)	(7,335)
Balances at December 31, 2022	142,112,766	$ 142	$ 160,432	$ (105,932)	$ 54,642
Issuance of common stock in exchange for Viewpoint common stock, net of issuance costs	136,545,075	137	54,416	-	54,553
Assumption of Viewpoint stock options and warrants at fair value	-	-	7,836	-	7,836
Issuance of common stock pursuant to at the market offering, net	1,238,826	1	363	-	364
Issuance of common stock pursuant to exercise of options	1,913,185	2	552	-	554
Share-based compensation	-	-	3,738	-	3,738
Net loss for the year	-	-	-	(46,508)	(46,508)
Balances at December 31, 2023	281,809,852	$ 282	$ 227,337	$ (152,440)	$ 75,179

The accompanying notes are an integral part of these consolidated financial statements.

Perspective Therapeutics, Inc. and Subsidiaries
Consolidated Statements of Cash Flows
(In thousands)

	Year ended December 31, 2023	Six months ended December 31, 2022	Year ended June 30, 2022
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net loss	$ (46,508)	$ (7,335)	$ (7,272)
Adjustments to reconcile net loss to net cash used by operating activities:			
Lease expense	75	2	4
Depreciation expense	946	138	248
Write-off of inventory associated with discontinued product	298	-	-
Loss on disposal of property and equipment	22	305	-
Amortization of other assets	40	21	41
Accretion of asset retirement obligation	35	17	32
Equity in loss of affiliate	17	-	-
Accrued interest on short-term investments	-	(226)	-
Change in allowance for doubtful accounts	624	-	-
Change in estimate of asset retirement obligation	(15)	-	-
Loss recognized on classification as held for sale	4,170	-	-
Share-based compensation	3,738	672	1,087
Deferred income tax benefit	(2,651)	-	-
Changes in operating assets and liabilities:			
Accounts receivable, net	(426)	245	405
Inventory	359	(76)	(2,673)
Prepaid expenses and other current assets	(325)	(249)	46
Accounts payable and accrued expenses	1,584	573	236
Accrued protocol expense	89	83	52
Accrued radioactive waste disposal	(100)	9	20
Accrued payroll and related taxes	1,274	(297)	70
Accrued vacation	(159)	32	(6)
Net cash used by operating activities	(36,913)	(6,086)	(7,710)
CASH FLOWS FROM INVESTING ACTIVITIES:			
Additions to property and equipment	(1,072)	(151)	(266)
Additions to other assets	(18)	-	(18)
Additions to equity method investment	-	(150)	-
Proceeds from maturity of short-term investments	22,764	12,538	-
Purchases of short-term investments	-	(35,076)	-
Investment in note receivable	-	(6,000)	-
Net cash acquired in acquisition of Viewpoint	2,699		
Net cash provided by (used in) investing activities	24,373	(28,839)	(284)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Repayment of notes payable	(68)	-	-
Proceeds from sales of common stock, pursuant to exercise of options	554	28	56
Proceeds from at the market offering	364	-	-
Issuance costs related to common stock issued in exchange for Viewpoint common stock	(65)	-	-
Net cash provided by financing activities	785	28	56
Net decrease in cash, cash equivalents and restricted cash	(11,755)	(34,897)	(7,938)
Cash, cash equivalents and restricted cash beginning of period	21,175	56,072	64,010
CASH, CASH EQUIVALENTS AND RESTRICTED CASH END OF PERIOD	$ 9,420	$ 21,175	$ 56,072
Reconciliation of cash, cash equivalents and restricted cash to the consolidated balance sheets:			
Cash and cash equivalents	$ 9,238	$ 20,993	$ 55,890
Restricted cash	182	182	182
Total cash, cash equivalents and restricted cash	$ 9,420	$ 21,175	$ 56,072
Supplemental disclosure of cash flow information:			
Interest paid	$ 84	$ -	$ -
Noncash investing and financing activities:			
Fair value of Viewpoint assets acquired including goodwill	$ 82,628	$ -	$ -
136,545,075 shares of Perspective Therapeutics common stock issued in exchange for Viewpoint common stock	(54,618)	-	-
Assumption of Viewpoint stock options and warrants at fair value	(7,836)	-	-
Note receivable and accrued interest from Viewpoint forgiven	(6,171)	-	-
Viewpoint liabilities assumed including deferred tax liabilities established through accounting for business combinations (see Note 14)	14,003	-	-
Modification of operating lease liability and right of use asset	557	-	-
Operating lease liability and right of use asset for new lease	811	-	-

The accompanying notes are an integral part of these consolidated financial statements.

Perspective Therapeutics, Inc.
Notes to Consolidated Financial Statements

1. Organization

Perspective Therapeutics, Inc. ("Perspective Therapeutics" or the "Company") (formerly known as Isoray, Inc. and Century Park Pictures Corporation) was incorporated in Minnesota in 1983. On July 28, 2005, Isoray Medical, Inc. ("Isoray") became a wholly owned subsidiary of Perspective Therapeutics pursuant to a merger. In December 2018, upon approval of a majority of stockholders, Perspective Therapeutics was redomiciled to Delaware. Isoray was formed under Delaware law on June 15, 2004, and on October 1, 2004, acquired two affiliated predecessor companies which began operations in 1998. Isoray, a Delaware corporation, develops, manufactures and sells isotope-based medical products and devices for the treatment of cancer and other malignant diseases. Isoray is headquartered in Richland, Washington.

Isoray International, LLC ("International"), a Washington limited liability company, was formed on November 27, 2007, and is a wholly owned subsidiary of Perspective Therapeutics.

On February 3, 2023, the Company completed the merger of Isoray Acquisition Corp., a Delaware corporation and wholly owned subsidiary of the Company, with Viewpoint Molecular Targeting, Inc. ("Viewpoint") (such transaction being the "Merger"). Pursuant to the Merger, the Company issued 136,545,075 shares of common stock, representing approximately 49% of its fully diluted outstanding capital stock. Viewpoint is an alpha-particle radiopharmaceutical company in the alpha-emitter market developing oncology therapeutics and complementary imaging agents. For additional information, see Note 3, *Merger with Viewpoint Molecular Targeting, Inc.*

On February 6, 2023, the Company announced that on January 31, 2023, the Company's board of directors approved a change in the Company's fiscal year end from June 30 to December 31, effective as of December 31, 2022.

Perspective Therapeutics Pty Ltd, an Australian registered company, was formed on April 14, 2023 as a wholly owned subsidiary of the Company. It was formed to assist in certain clinical trial aspects of the alpha-emitter therapeutic agents.

On December 7, 2023, the Company announced the anticipated sale of its Cesium- 13 brachytherapy business. Accordingly, the financial information and operating results of the Cesium-131 brachytherapy business have been presented as discontinued operations in the financial statements for all periods presented. Unless otherwise noted, discussion within these notes to the financial statements relates to continuing operations. For additional information, see Note 4, *Discontinued Operations*.

2. Summary of Significant Accounting Policies

Reclassifications

Certain prior period amounts have been reclassified to conform to the current period presentation as further described in Note 4, *Discontinued Operations*.

Basis of Presentation and Principles of Consolidation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries (collectively, the "Company"). All significant inter-company transactions and balances have been eliminated in consolidation.

Cash Equivalents

The Company considers currency on hand, demand deposits, time deposits, and all highly liquid investments with an original maturity of three months or less at the date of purchase to be cash and cash equivalents. Cash and cash equivalents are held in various financial institutions in the United States.

Investments

Investments in debt securities with original maturities greater than three months and remaining maturities less than one year are classified as "Short-term investments" and included in current assets. Investments with remaining maturities greater than one year are classified as "Investments, noncurrent" and are included in noncurrent assets. These investments are classified as held-to-maturity are carried at amortized cost because they are purchased with the intent and ability to be held to maturity.

Property and Equipment

Property and Equipment is capitalized and carried at cost less accumulated depreciation. Depreciation expense is recorded to cost of sales and operating expenses. Normal maintenance and repairs are charged to expense as incurred. When any assets are sold or otherwise disposed of, the cost and accumulated depreciation are reversed with any resulting gain or loss being recognized on the consolidated statement of operations.

Depreciation is computed using the straight-line method over the following estimated useful lives:

Research and development equipment (in years)	3 to 7
Office equipment (in years)	2 to 10
Furniture and fixtures (in years)	2 to 10

Leasehold improvements are amortized over the shorter of the lease term or the estimated useful life of the asset.

Property and equipment that is acquired but not yet placed in service is recorded on the balance sheets at cost and no depreciation expense or accumulated depreciation is recognized until the property and equipment is placed in service.

Management periodically reviews the net carrying value of all of its long-lived assets on an asset-by-asset basis. An impairment loss is recognized if the carrying amount of a defined asset group is not recoverable and exceeds its fair value.

Although management has made its best estimate of the factors that affect the carrying value based on current conditions, it is reasonably possible that changes could occur which could adversely affect management's estimate of net cash flows expected to be generated from its assets that could result in an impairment adjustment.

Prepaid Expenses and Other Assets

Prepaid expenses and other assets, which include website development costs, trademarks, patents and licenses, are stated at cost, less accumulated amortization. For website development, costs incurred in the planning stage are expensed as incurred whereas costs associated with the application and infrastructure development, graphics development, and content development are capitalized. Amortization of website development costs is computed using the straight-line method over the estimated economic useful lives of the asset. Trademarks and patents include costs, primarily legal, incurred in obtaining them. Amortization of trademarks and patents is computed using the straight-line method over the estimated economic useful lives of the assets. Licenses include costs related to licenses pertaining to the use of technology or operational licenses. These licenses are recorded at stated cost, less accumulated amortization. Amortization of licenses is computed using the straight-line method over the estimated economic useful lives of the assets. The Company periodically reviews the carrying values of other assets and evaluates the recorded basis for any impairment. Any impairment is recognized when the expected future operating cash flows to be derived from the licenses are less than their carrying value.

Asset Retirement Obligation

The estimated fair value of the future retirement costs of the Company's leased assets and the costs for the decontamination and reclamation of equipment located within the leased assets are recorded as a liability on a discounted basis when a contractual obligation exists; an equivalent amount is capitalized to property and equipment. The initial recorded obligation is discounted using the Company's credit-adjusted risk-free rate and is reviewed periodically for changes in the estimated future costs underlying the obligation. The Company amortizes the initial amount capitalized to property and equipment and recognizes accretion expense in connection with the discounted liability over the estimated remaining useful life of the leased assets. Adjustments and changes to either the timing or amount of the original present value estimate underlying the obligation are made in the period incurred.

Financial Instruments

The fair value of a financial instrument is the amount at which the instrument could be exchanged in a current transaction between willing parties, other than a forced liquidation sale. At December 31, 2023 and 2022, the carrying value of financial instruments, which included restricted cash, short-term investments, note receivable, note payable and equity method investment approximated fair value.

Fair Value Measurement

When required to measure assets or liabilities at fair value, the Company uses a fair value hierarchy based on the level of independent, objective evidence surrounding the inputs used. The Company determines the level within the fair value hierarchy in which the fair value measurements in their entirety fall. The categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. Level 1 uses quoted prices in active markets for identical assets or liabilities, Level 2 uses significant other observable inputs, and Level 3 uses significant unobservable inputs. The amount of the total gains or losses for the period are included in earnings that are attributable to the change in unrealized gains or losses relating to those assets and liabilities still held at the reporting date. The Company has no financial assets or liabilities that are adjusted to fair value on a recurring basis.

At December 31, 2023 and 2022, there were no assets or liabilities measured at fair value on a nonrecurring basis. Certain assets and liabilities, including net assets acquired in business combinations, are measured at fair value on a nonrecurring basis; that is, the assets or liabilities are not measured at fair value on an ongoing basis but are subject to fair value adjustments only in certain circumstances (for example, when there is evidence of impairment or an acquisition of a business).

Share-Based Compensation

The Company measures and recognizes expense for all share-based payments at fair value. The Company uses the Black-Scholes option valuation model to estimate fair value for all stock options and stock warrants on the date of grant. For stock options that vest over time, the Company recognizes compensation cost on a straight-line basis over the requisite service period for the entire award. The Company recognizes forfeitures as they occur.

Research and Development Costs

Research and development costs, including salaries, research materials, administrative expenses and contractor fees, are charged to operations as incurred. The cost of equipment used in research and development activities which has alternative uses is capitalized as part of fixed assets and not treated as an expense in the period acquired. Depreciation of capitalized equipment used to perform research and development is classified as research and development expense in the year recognized.

Legal Contingencies

The Company records contingent liabilities resulting from asserted and unasserted claims against it, when it is probable that a liability has been incurred and the amount of the loss is reasonably estimable. Estimating probable losses requires analysis of multiple factors, in some cases including judgments about the potential actions of third-party claimants and courts. Therefore, actual losses in any future period are inherently uncertain. Currently, the Company does not believe any probable legal proceedings or claims will have a material adverse effect on its financial position or results of operations other than the estimated liability recorded during the fiscal year ended December 31, 2023. However, if actual or estimated probable future losses exceed the Company's recorded liability for such claims, it would record additional charges as other expense during the period in which the actual loss or change in estimate occurred. For additional information, see Note 16, *Commitments and Contingencies*.

Income Taxes

Income taxes are accounted for under the liability method in accordance with Accounting Standards Codification ("ASC") 740, *Income Taxes*. Under this method, the Company provides deferred income taxes for temporary differences that will result in taxable or deductible amounts in future years based on the reporting of certain costs in different periods for financial statement and income tax purposes. This method also requires the recognition of future tax benefits such as net operating loss carry-forwards, to the extent that realization of such benefits is not subject to an allowance. A valuation allowance is recognized on deferred tax assets when it is more likely than not that some or all of these deferred tax assets will not be realized. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in operations in the period that includes the enactment of the change. In the event that the Company is assessed penalties and/or interest, penalties will be charged to other operating expense and interest will be charged to interest expense in the period that they are assessed. The Company recognizes liabilities for uncertain tax positions based on a two-step process, whereby (1) it is determined whether it is more likely than not that the tax positions will be sustained based on the technical merits of the position and (2) for those tax positions that meet the "more likely than not" recognition threshold, the largest amount of tax benefit that is greater than 50% likely of being realized upon ultimate settlement with the related tax authority would be recognized.

Equity Method Investment

Investments in companies for which the Company has the ability to exercise significant influence, but do not control, are accounted for under the equity method. Under the equity method of accounting, our share of the net earnings or losses of the investee are included in other income (expense) in the consolidated statements of operations. At the end of each reporting period, the Company considers whether impairment indicators exist to evaluate whether an equity method investment is impaired and, if so, record an impairment loss. Investments are accounted for on a one-quarter lag. As changes in ownership percentage of our investments occur, the Company assesses whether we can exercise significant influence and account for under the equity method. If our ownership percentage of the company in which we have investment changes, we recognize a gain or loss on the investment in the period of change. Included in the consolidated financial statements for the year ended December 31, 2023 is the Company's proportional share of losses between October 1, 2022 through September 30, 2023, which was $ 17 thousand.

Leases

The Company accounts for its leases under ASC 842, *Leases*. Under this guidance, arrangements meeting the definition of a lease are classified as operating or financing leases and are recorded on the consolidated balance sheet as both a right-of-use asset and lease liability, calculated by discounting fixed lease payments over the lease term at the rate implicit in the lease or the Company's incremental borrowing rate. Lease liabilities are increased by interest and reduced by payments each period, and the right-of-use asset is amortized over the lease term. For operating leases, interest on the lease liability and the amortization of the right-of-use asset result in straight-line rent expense over the lease term. Variable lease expenses are recorded when incurred.

Business Acquisition Accounting

The Company applies the acquisition method of accounting for those that meet the criteria of a business combination. The Company allocates the purchase price of its business acquisition based on the fair value of identifiable tangible and intangible assets and liabilities. The difference between the total cost of the acquisition and the sum of the fair values of acquired tangible and identifiable intangible assets less liabilities is recorded as goodwill. Transaction costs are expensed as incurred in general and administrative expenses.

If applicable, the Company records deferred taxes for any differences between the assigned values and tax basis of assets and liabilities. Estimated deferred taxes are based on available information concerning the tax basis of assets acquired and liabilities assumed at the acquisition date, although such estimates may change in the future as additional information becomes known.

Goodwill and In-Process Research and Development ("IPR&D")

IPR&D assets represent the fair value of incomplete research and development ("R&D") projects that had not reached technological feasibility as of the date of the acquisition. Initially, these assets are classified as IPR&D and are not subject to amortization. IPR&D assets that reach commercialization are amortized on a straight-line basis over their estimated useful life. Estimated useful lives are determined considering the period the assets are expected to contribute to future cash flows. Post-acquisition R&D expenses related to these projects are expensed as incurred.

Goodwill represents the excess of the cost of net assets acquired in business combinations over the fair value of the identifiable tangible and intangible assets acquired and liabilities assumed in a business combination. We test goodwill and indefinite-lived intangibles for impairment at least annually in the fourth quarter and more frequently whenever events or circumstances change that would more likely than not reduce the fair value below the carrying amount. Such events or changes in circumstance include significant deterioration in overall economic conditions, changes in the business climate or a decline in the Company's market capitalization. To test goodwill and indefinite-lived intangible assets for impairment, we may perform both a qualitative assessment and quantitative assessment. If we elect to perform a qualitative assessment, we consider operating results as well as circumstances impacting the operations or cash flows of the reporting unit or indefinite-lived intangible assets, including macroeconomic conditions and industry and market conditions. For the quantitative test, the assessment is based on an income-based valuation approach. If it is determined that an impairment exists, we recognize an impairment loss for the amount by which the carrying amount of the reporting unit or indefinite-lived intangible asset exceeds its estimated fair value. Fair value estimates are based on assumptions believed to be reasonable at the time, but such assumptions are subject to inherent uncertainty, and actual results may differ materially from those estimates.

Grant Revenue Recognition

The Company enters into contracts with governmental agencies for services. These contracts are analyzed in order to determine if they should be accounted for under a revenue recognition model pursuant to ASC 606, *Revenue from Contracts with Customers*, or a grant model pursuant to ASC 958, *Not-for-Profit Entities*. If accounted for pursuant to a grant model, the Company must determine if the grant is conditional or unconditional, and if any conditional barriers exist which must be overcome. If unconditional, the grant is recognized as revenue immediately, and if conditional, the grant is recognized as revenue as and when the barriers are overcome. We concluded that payments received under the current grants represent conditional, nonreciprocal contributions, as described in ASC 958, and that the grants are not within the scope of ASC 606, as the organizations providing the grants do not meet the definition of a customer. The significant barrier to the current conditional grants is that the expenses incurred must meet the qualifications as established by the respective governmental agencies, so that the grant revenue is recognized as the qualified expenses are incurred. Expenses for grants are tracked using a project code specific to the grant, and the employees also track hours worked by using the project code. Under ASC 958, grants related to income are presented as part of the consolidated statements of operations, either separately or under a general heading. Both methods are acceptable under ASC 958. The Company has elected to record grants related to income separately on the consolidated statements of operations as grant revenue. The related expenses are recorded within R&D and general and administrative.

Assets Held for Sale and Discontinued Operations

The Company classifies assets and liabilities to be sold ("Disposal Group") as held for sale in the period when all of the applicable criteria are met, including: (i) management commits to a plan to sell, (ii) the Disposal Group is available to sell in its present condition, (iii) there is an active program to locate a buyer, (iv) the Disposal Group is being actively marketed at a reasonable price in relation to its fair value, (v) significant changes to the plan to sell are unlikely, and (vi) the sale of the Disposal Group is generally probable of being completed within one year. Management performs an assessment at least quarterly or when events or changes in business circumstances indicate that a change in classification may be necessary.

Assets and liabilities held for sale are presented separately within the consolidated balance sheets with any adjustments necessary to measure the Disposal Group at the lower of its carrying value or fair value less costs to sell. Depreciation of property and equipment and amortization right-of-use assets are not recorded while these assets are classified as held for sale. For each period the Disposal Group remains classified as held for sale, its recoverability is reassessed and any necessary adjustments are made to its carrying value.

The Company categorizes the assets and liabilities of a business component as discontinued operations once management commits to a plan to sell, the business segment is available for immediate sale, management has initiated a plan to sell at a price that is reasonable in relation to its fair value, management anticipates the sale will occur within one year, and it is unlikely that significant changes will be made to the plan to sell. In addition, the business component must be comprised of operations and cash flows that are clearly distinguished from the rest of the entity. The results of discontinued operations are aggregated and presented separately in the consolidated balance sheets and consolidated statements of operations.

Income (Loss) Per Common Share

Basic earnings per share is calculated by dividing net income (loss) available to common stockholders by the weighted average number of common shares outstanding and does not include the impact of any potentially dilutive common stock equivalents, including preferred stock, common stock warrants or options that are potentially convertible into common stock, as those would be antidilutive due to the Company's net loss position.

Securities that could be dilutive in the future are as follows:

	December 31, 2023	December 31, 2022	June 30, 2022
Common stock warrants	5,760,581	2,645,738	2,645,738
Common stock options	51,132,425	10,806,200	6,914,025
Total potential dilutive securities	56,893,006	13,451,938	9,559,763

Use of Estimates

The preparation of consolidated financial statements in accordance with GAAP requires management of the Company to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes of the Company including the allowance for doubtful accounts receivable; net realizable value of the enriched barium inventory; the estimated useful lives used in calculating depreciation and amortization on the Company's fixed assets, patents, trademarks and other assets; estimated amount and fair value of the asset retirement obligation related to the Company's production facilities; equity method investment; and inputs to the Black-Scholes calculation used in determining the expense related to share-based compensation including volatility and estimated lives of options granted. Accordingly, actual results could differ from those estimates and affect the amounts reported in the financial statements.

Recent Accounting Pronouncements

Accounting Standards Updates to Become Effective in Future Periods

In November 2023, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2023-07, *Segment Reporting (Topic 280)*, which expands segment disclosure requirements, including new disclosure requirements for entities with a single reportable segment. This update is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. The Company is currently evaluating the impact that adoption of ASU 2023-07 will have on its consolidated financial statements.

In December 2023, the FASB issued ASU 2023-09, *Income Taxes (Topic 740)*, which expands income tax disclosure requirements, including additional information pertaining to rate reconciliation, income taxes paid and other disclosures. This update is effective for annual periods beginning after December 15, 2024. The Company is currently evaluating the impact that adoption of ASU 2023-09 will have on its consolidated financial statements.

Significant Accounting Policies Related to Discontinued Operations

Accounts Receivable

Accounts receivable relate to the Company's discontinued operations (see Note 4, *Discontinued Operations*) and are stated at the amount that management of the Company expects to collect from outstanding balances. Management provides for probable uncollectible amounts through an allowance for doubtful accounts. Additions to the allowance for doubtful accounts are based on management's judgment, considering historical experience with write-offs, collections and current credit conditions. Balances which remain outstanding after management has used reasonable collection efforts are written off through a charge to the allowance for doubtful accounts and a credit to the applicable accounts receivable. Payments received subsequent to the time that an account is written off are treated as bad debt recoveries.

Inventory

Inventory is reported at the lower of cost or net realizable value. Cost of raw materials is determined using the weighted average method. Cost of work in process and finished goods is computed using standard cost, which approximates actual cost, on a first-in, first-out basis.

The cost of materials and production costs contained in inventory that are not usable due to the passage of time, and resulting loss of bio-effectiveness, are written off to cost of sales at the time it is determined that the product is no longer usable.

Revenue Recognition

The Company recognizes revenue based on the five-step model for revenue recognition as prescribed by ASC 606, *Revenue from Contracts with Customers*, as follows: (1) identify the contract with the customer; (2) identify the performance obligations in the contract; (3) determine the transaction price; (4) allocate the prices to the performance obligations; and (5) recognize revenue. The Company has some agreements that contain general commercial terms and product prices but do not contain an obligation to provide goods to the customer. Our performance obligation, which is established when the customer submits a purchase order and the Company accepts the order, is to deliver the product based on the purchase order received. The Company typically recognizes revenue at the time of shipment, at which time the title passes to the customer, and there are no further performance obligations.

3. Merger with Viewpoint Molecular Targeting, Inc.

On February 3, 2023, the Company acquired 100% of the issued and outstanding equity and voting shares of Viewpoint Molecular Targeting, Inc. ("Viewpoint"), in exchange for 136,545,075 shares of our common stock with a fair value of $54.6 million based on the closing market price of $0.40 per share on the acquisition date. At the closing of the merger, the Company forgave the note receivable entered into in November 2022 and the associated accrued interest with Viewpoint that was included in Note Receivable. The total amount forgiven was $6.2 million, representing the $6.0 million loan and $0.2 million accrued interest.

Viewpoint is developing the next generation of precision-targeted alpha therapies ("TAT") for oncology that have the potential to treat a large population of cancer patients across multiple tumor types, including those with metastatic disease. By leveraging its proprietary TAT platform, Viewpoint aims to develop alpha emitting radiopharmaceuticals that can be attached to targeting peptides to deliver the radioactive payload directly to difficult to treat tumors. The Merger was completed to provide the Company with a new isotope in a larger market.

The Company accounted for the transaction as a business combination in accordance ASC 805, *Business Combinations*. The Company has performed an allocation of the purchase price paid for the assets acquired and the liabilities assumed with the assistance of an independent valuation firm. The Viewpoint purchase price consideration and allocation to net assets acquired is presented below (dollars in thousands except for share price):

Fair value of consideration transferred		
Perspective Therapeutics common stock issued (136,545,075 X $0.40)	$	54,618
Assumption of Viewpoint stock options and warrants at fair value		7,836
Note receivable from Viewpoint forgiven		6,171
Total fair value of consideration transferred	$	68,625
Recognized amounts of identifiable net assets acquired		
Assets acquired		
Cash and cash equivalents	$	2,699
Grants receivable		95
Prepaid expenses		396
Property and equipment, net		5,050
Right of use asset, net		10
Intangible assets: In-process research and development		50,000
Other assets		316
Total assets acquired		58,566
Liabilities acquired		
Accounts payable and accrued expenses		2,968
Lease liability		10
Accrued payroll and related taxes		1,642
Accrued vacation		333
Notes payable		1,807
Deferred tax liability		7,243
Total liabilities acquired		14,003
Net assets acquired, excluding goodwill		44,563
Total purchase price consideration		68,625
Goodwill	$	24,062

The fair value of acquired intangible assets was determined using an income-based approach referred to as the multi-period excess-earnings approach at the time of acquisition. The in-process research and development ("IPR&D") was valued by discounting the direct cash flows expected to be generated by the research and development programs, net of returns on contributory assets, and taking into consideration the industry and economic conditions. In determining the fair value of the intangible assets, the Company assigned discount rates ranging from 24.0 % to 26.0 % for the specific assets associated with the IPR&D based on the consideration of the internal rate of return of 21.3 % and weighted average cost of capital of 21.5 % for a forecast period of 18 years.

Goodwill is calculated as the difference between the acquisition date fair value of the consideration and the values assigned to the assets acquired and liabilities assumed. Goodwill is not deductible for tax purposes. The goodwill is attributable to the workforce of the acquired business and the synergies expected to arise from the acquisition of Viewpoint.

During the period ended December 31, 2023, the Company recognized an adjustment to goodwill during the measurement period relating to the assumed deferred tax liability. The adjustment was a decrease of $ 3.3 million to $ 7.2 million from the original provisional amount of $ 10.5 million. This measurement period adjustment decreased goodwill by $ 3.3 million to $ 24.0 from the original provisional amount of $ 27.3 million. The impact of this measurement period adjustment to the income statement was a decrease of the deferred income tax benefit of $ 7.8 million to $ 2.7 million from $ 10.5 million.

The results of operations for Viewpoint since the closing date have been included in the Company's consolidated financial statements for the year ended December 31, 2023, and include approximately $ 1.4 million of grant revenue and $ 27.4 million of operating loss. During the year ended December 31, 2023, the Company recognized total transaction costs of approximately $ 9.5 million, which are included in general and administrative expenses on the consolidated statement of operations. During the transition period ended December 31, 2022, the Company recognized total transaction costs of approximately $ 1.3 million.

The unaudited pro forma financial information below represents the combined results of operations as if the acquisition had occurred on July 1, 2021, the beginning of the first statement of operations reporting period presented. The unaudited pro forma financial information is presented for informational purposes only and is neither indicative of the results of operations that would have occurred if the acquisition had taken place at the beginning of the period presented nor indicative of future operating results.

(in thousands)	Year ended December 31, 2023	Six months ended December 31, 2022	Year ended June 30, 2022
Revenue	$ 1,518	$ 783	$ 2,013
Net loss from continuing operations	(37,021)	(12,986)	(26,764)

The information below reflects certain nonrecurring pro forma adjustments for the year ended December 31, 2023, the six-month transition period ended December 31, 2022 and the year ended June 30, 2022 that were directly related to the business combination based on available information and certain assumptions that the Company believes are reasonable.

- Includes the operations of Viewpoint from January 1, 2023 to February 3, 2023 (the merger date) in the year ended December 31, 2023.
- Excludes acquisition-related costs incurred by the Company totaling approximately $ 4.6 million and acquisition-related costs incurred by Viewpoint in January 2023 totaling approximately $ 4.9 million for the year ended December 31, 2023, and includes the total costs of $ 4.6 million and $ 4.9 million for the year ended June 30, 2022.
- Excludes the deferred income tax benefit of approximately $ 2.7 million for the year ended December 31, 2023 and includes the deferred income tax benefit of approximately $ 2.7 million for the year ended June 30, 2022.
- Pro forma amounts do not include the results of operations related to discontinued operations as discussed in Note 4, *Discontinued Operations*.

The weighted average fair value of stock options and warrants assumed and the key assumptions used in the Black-Scholes valuation model to calculate the fair value are as follows:

	February 3, 2023		
Weighted average fair value	$ 0.28		
Options and warrants assumed	27,650,524		
Exercise price	$ 0.13	to	$ 0.30
Expected term (in years)	1	to	3
Risk-free rate	3.96 %	to	4.79 %
Volatility	78 %	to	101 %

4. Discontinued Operations

The Company announced that, on December 7, 2023, Isoray entered into a definitive asset purchase agreement ("GT Medical APA") to sell substantially all of the assets of Isoray related to Isoray's commercial Cesium-131 business (the "Business") including equipment, certain contracts, inventory and intellectual property to GT Medical Technologies, Inc. ("GT Medical"). Upon the closing ("GT Medical Closing"), (i) GT Medical will issue to Isoray shares of GT Medical's common stock, par value $ 0.0001 per share, representing 0.5% of GT Medical's issued and outstanding capital stock on a fully diluted basis as of the GT Medical Closing and (ii) Isoray will have the right to receive, and GT Medical will be obligated to pay, certain cash royalty payments during each of the first four years beginning upon the date of the GT Medical Closing (each such year, a "Measurement Period"), as summarized below:

- with respect to GT Medical's net sales of Cesium 131 brachytherapy seeds for cases that do not utilize GT Medical's GammaTile Therapy: (a) if such net sales for a Measurement Period are $10 million or less, 3.0 % of such net sales; (b) if such net sales for a Measurement Period are greater than $10 million and less than $15 million, 4.0 % of such net sales; and (c) if such net sales for a Measurement Period are $15 million or more, 5.0 % of such net sales; and
- with respect to GT Medical's net sales of GT Medical's GammaTile Therapy utilizing Cesium- 131 brachytherapy seeds: 0.5% of such net sales for a Measurement Period.

In accordance with ASC 205-20, *Presentation of Financial Statements – Discontinued Operations* , the following table presents the major classes of assets and liabilities of discontinued operations of the Business reported in the consolidated balance sheets and prior year amounts have been reclassified. For December 31, 2023, all assets and liabilities are classified as "current," given the anticipated closing of the transaction in the first half of 2024.

(in thousands)	December 31, 2023	December 31, 2022
Assets held for sale of discontinued operations, current		
Inventory	$ 3,148	$ 1,409
Prepaid expenses and other current assets	169	134
Property and equipment, net	1,263	-
Right of use asset, net	676	-
Other assets, net	45	-
Total current assets held for sale of discontinued operations	$ 5,301	$ 1,543
Assets held for sale of discontinued operations, non-current		
Property and equipment, net	$ -	$ 1,313
Right of use asset, net	-	378
Inventory, non-current	-	2,396
Other assets, net	-	61
Total non-current assets of discontinued operations	$ -	$ 4,148
Liabilities of discontinued operations, current		
Lease liability	$ 677	$ 276
Asset retirement obligation	225	-
Loss recognized on classification as held for sale	4,170	-
Total current liabilities of discontinued operations	$ 5,072	$ 276
Liabilities of discontinued operations, non-current		
Lease liability, non-current	$ -	$ 116
Asset retirement obligation	-	215
Total non-current liabilities of discontinued operations	$ -	$ 331

The following table presents the components of discontinued operations in relation to the Business reported in the consolidated statements of operations:

	Year ended December 31, 2023	Six months ended December 31, 2022	Year ended June 30, 2022
Sales, net	$ 6,936	$ 3,552	$ 10,795
Cost of sales	6,473	2,735	6,179
Gross profit	463	817	4,616
Operating expenses:			
Research and development	1,015	833	1,732
Sales and marketing	2,989	1,614	2,804
General and administrative	1,342	645	1,052
Total operating expenses	5,346	3,092	5,588
Net loss from discontinued operations	(4,883)	(2,275)	(972)
Loss recognized on classification as held for sale	(4,170)	-	-
Total loss from discontinued operations	$ (9,053)	$ (2,275)	$ (972)

The Company determined the loss recognized on classification as held for sale by identifying the assets and liabilities that are included in the GT Medical APA and are included in the table above. Additionally, the loss recognized on classification as held for sale was determined using the estimated fair value of the GT Medical stock of $ 229 thousand to be received less than the carrying value of the net assets to be sold. The fair value of the stock to be received was determined based on information provided to the Company by GT Medical from a current valuation study that was prepared for them. Excluded from the calculation of the loss are contingent royalties that could be received from future sales.

Certain amounts included in the consolidated statement of cash flows related to the discontinued operations and are as follows:

	Year ended December 31, 2023	Six months ended December 31, 2022	Year ended June 30, 2022
Depreciation	$ 232	$ 109	$ 204
Amortization	33	17	34
Write-off of inventory associated with discontinued product	298	-	-
Share-based compensation	595	176	312
Additions to property and equipment	283	142	246

For the year ended December 31, 2023, the transition period ended December 31, 2022, and the year ended June 30, 2022 there was no provision (benefit) for income taxes recorded related to the discontinued operations. Additionally, the Company is in loss position and has recorded a full valuation allowance for the deferred tax assets associated with the discontinued operations.

5. Prepaid Expenses, Other Current Assets and Note Receivable

Prepaid expenses and other current assets consisted of the following (in thousands):

	December 31, 2023	December 31, 2022
Prepaid insurance	$ 315	$ 236
Other prepaid expenses	763	205
Other current assets	45	-
Other receivables	10	2
Total prepaid expenses and other current assets	$ 1,133	$ 443

	December 31, 2023	December 31, 2022
Note receivable[1]	$ -	$ 6,109
Total note receivable	$ -	$ 6,109

1. In November 2022, the Company entered into a loan agreement with Viewpoint for $ 6.0 million. The note bears interest at the rate of 15 % per annum and matures on December 31, 2023. Included in the balance is accrued interest of $ 109 thousand through December 31, 2022. On February 3, 2023, as a result of the merger with Viewpoint closing, the loan and accrued interest was forgiven.

6. Property & Equipment

Property & equipment consisted of the following (in thousands):

	December 31, 2023	December 31, 2022
Building	$ 1,770	$ -
Land	1,283	366
Equipment	2,683	18
Leasehold improvements	179	-
Other[1]	330	2
Property and equipment	6,245	386
Less accumulated depreciation	(669)	(15)
Property and equipment, net	$ 5,576	$ 371

1. Property and equipment not placed in service are items that meet the capitalization threshold or which management believes will meet the threshold at the time of completion and which have yet to be placed into service as of the date of the balance sheet, and therefore, no depreciation expense has been recognized.

7. Held-to-Maturity Investments

The following table summarizes the carrying values and fair values of the Company's financial instruments (in thousands):

	December 31, 2023			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized losses	Estimated Fair Value (Level 1)
U.S. Treasury Bills	$ -	$ -	$ -	$ -

	December 31, 2022			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized losses	Estimated Fair Value (Level 1)
U.S. Treasury Bills	$ 22,764	$ -	$ (31)	$ 22,733

The Company had investments in U.S. Treasury Bills, some of which had a contractual maturity of no greater than one year; accordingly, they were classified as short-term investments. Because the Company had the intent and ability to hold them until they matured, the U.S. Treasury Bills were carried at amortized cost and classified as held to maturity. The carrying value of the U.S. Treasury Bills were adjusted for accretion of discounts over the remaining life of the investment. Income related to the U.S. Treasury Bills is recognized in interest income in the Company's consolidated statement of operations. The U.S. Treasury Bills are classified within Level 1 of the fair value hierarchy. During the year ended December 31, 2023, all of the Company's short-term investments in U.S. Treasury Bills matured. As of December 31, 2023, the Company had no held-to-maturity investments presented in cash and cash equivalents on its consolidated balance sheet.

8. Restricted Cash

The Washington Department of Health requires the Company to provide collateral for the decommissioning of its leased facility for Cesium- 131 brachytherapy production which is being sold to GT Medical. To satisfy this requirement, the Company has a bank account with a balance of $ 182 thousand. The account is termed restricted cash and classified as a long-term asset as the Company does not anticipate the facility will be decommissioned until the end of the current lease. The current lease expires April 30, 2026. The cash will become unrestricted following the decommissioning of the facility and the release of the facility by the Washington Department of Health back to the landlord.

9. Goodwill, Intangible Assets and Other Assets, net

Goodwill

The carrying amount of goodwill as of December 31, 2023 and December 31, 2022 was $ 24.1 million and $ 0.0 million, respectively, and has been recorded in connection with the Company's Merger of Viewpoint in February 2023. The carrying value of goodwill and the change in the balance for the year ended December 31, 2023 are as follows (in thousands):

Balance, December 31, 2022	$ -
Goodwill from Viewpoint Acquisition	24,062
Impairment	-
Balance, December 31, 2023	$ 24,062

Intangible Assets

Intangible assets, net as of December 31, 2023 are as follows (in thousands):

	December 31, 2023		
	Cost	Accumulated Amortization	Net Carrying Value
Indefinite-lived intangible assets			
In-process research and development	$ 50,000	$ -	$ 50,000
Total	$ 50,000	$ -	$ 50,000

The Company did not have intangible assets at December 31, 2022.

The Company's IPR&D assets represents the estimated fair value of Viewpoint's pipeline of radiotherapy product candidates acquired in February 2023. During the fourth quarter of 2023, the Company performed an impairment analysis, calculating the fair value of its indefinite-lived intangible assets, IPR&D, using the income approach. The income approach is a discounted cash flow analysis that requires significant judgment, assumptions and estimates to model forecasts for IPR&D. Actual results may differ from these estimates under different assumptions or conditions. The fair value of IPR&D at the measurement date exceeded the carrying amount. For additional information related to goodwill and IPR&D, see Note 2, *Summary of Significant Accounting Policies*, and Note 3, *Merger with Viewpoint Molecular Targeting, Inc*.

Other Assets

Other assets, net of accumulated amortization consisted of the following (in thousands):

	December 31, 2023	December 31, 2022
Website development	$ 90	$ 90
Patents and trademarks	336	-
Total other assets	426	90
Less: Accumulated amortization	(72)	(65)
	354	25
Equity method investment[1]	133	150
Total other assets, net	$ 487	$ 175

1. On August 23, 2022, the Company acquired 20 % of the outstanding equity interests of RadRelease Pharmaceuticals LLC ("RadRelease"), an Indiana limited liability company, pursuant to a Membership Interest Purchase Agreement (the "Purchase Agreement"), dated August 23, 2022, by and among RadRelease and the Company. Pursuant to the Purchase Agreement, the Company paid RadRelease $ 150 thousand in cash consideration. The investment is recorded on a one-quarter lag. Included in the consolidated financial statements for the 12 months ended December 31, 2023 is the Company's proportional share of losses between October 1, 2022 through September 30, 2023, which were $ 17 thousand.

	Year ended December 31, 2023	Six months Ended December 31, 2022	Year ended June 30, 2022
Amortization expense on website development	$ 7	$ 4	$ 7
Total amortization expense	$ 7	$ 4	$ 7

Future amortization expense is expected to be as follows (in thousands):

Year ending December 31, 2024	$ 7
2025	7
2026	4
2027	-
Thereafter	-
Total future amortization expense	$ 18

10.Leases

On July 1, 2023, the Company entered into a lease with Unico Properties LLC for office space in Seattle, Washington, that terminates in October 2028. Upon entering this lease, the Company recognized a right-of-use asset and lease liability of approximately $ 0.8 million on the balance sheet based upon the present value of the future base payments discounted at an 8 % discount rate using the rate of interest that the Company would have to pay to borrow on a collateralized basis over a similar term and amount equal to the lease payments in a similar economic environment as the lease does not provide an implicit discount rate. The weighted average remaining term and discount rate as of December 31, 2023, was 4.83 years and 8 %, respectively.

The following table presents the future operating lease payments and lease liability included on the consolidated balance sheet related to the Company's operating lease as of December 31, 2023 (in thousands):

Year ended December 31,	
2024	$ 111
2025	243
2026	239
2027	230
2028	237
Total	1,060
Less: imputed interest	(234)
Total lease liability	826
Less current portion	(46)
Noncurrent lease liability	$ 780

For the year ended December 31, 2023, six months ended December 31, 2022 and year ended June 30, 2022, our operating lease expense was approximately $ 97 thousand, $ 0 and $ 0 , respectively, and is recognized in the statement of operations in general and administrative for the year ended December 31, 2023.

Asset Retirement Obligation

The Company has an asset retirement obligation ("ARO") associated with the facility it leased in Richland, Washington. This lease is included in the GT Medical APA and will be assigned upon the GT Medical Closing. As the lease and related leasehold assets are included in the GT Medical APA and will be assigned to GT Medical, this liability is no longer reported as an ARO in our consolidated financial statements for the period ended December 31, 2023 and 2022. However, the Company maintains the estimated liability in our consolidated financial statements related to hazardous waste removal. The estimated liability at December 31, 2023 and 2022 was $ 452 thousand and $ 442 thousand, respectively.

11.Notes Payable

The Company assumed two notes payable effective upon the closing of the Merger with Viewpoint on February 3, 2023. On July 19, 2019, Viewpoint entered into a promissory note agreement with the Iowa Economic Development Authority ("IEDA") for $ 100 thousand at a 3 % interest rate to be paid over 36 monthly payments of approximately $ 3 thousand beginning on the first day of the first month following Viewpoint closing on a $1.0 million equity fundraising round. Final payment was paid in September 2023. The loan was granted as a form of financial assistance to Viewpoint from IEDA. Between February 3, 2023 and December 31, 2023, the Company recorded less than $ 1 thousand interest expense and $ 24 thousand in principal payments.

The note payable as of December 31, 2023 and December 31, 2022 (in thousands):

	December 31, 2023	**December 31, 2022**
Note payable (1)	$ 1,725	$ -
Less: current portion	(49)	-
Notes payable – long-term portion	$ 1,676	$ -

(1) On December 29, 2022, Viewpoint obtained a promissory note in the amount of approximately $ 1.8 million for the purpose of purchasing land and a building in Coralville, Iowa. The note bears interest at 6.15 % per annum and is collateralized by the property. The note requires monthly principal and interest payments of approximately $ 13 thousand beginning on January 29, 2023, and a balloon payment of approximately $ 1.5 million due on December 29, 2027. As of December 31, 2023, the current portion of the note payable was approximately $ 49 thousand. Between February 3, 2023 and December 31, 2023, the Company recorded approximately $ 84 thousand interest expense and $ 44 thousand in principal payments.

The following table presents the future principal payments included on the consolidated balance sheet related to the Company's note payable as of December 31, 2023 (in thousands):

Years ending December 31:	
2024	$ 49
2025	52
2026	55
2027	1,569
Total	$ 1,725

12. Share-Based Compensation

The Company currently provides share-based compensation under two equity incentive plans approved by the Board of Directors and the stockholders:

- 2017 Equity Incentive Plan ("2017 Incentive Plan") and
- 2020 Second Amended and Restated Equity Incentive Plan (the "Second Amended and Restated Plan").

Options granted prior to fiscal 2017 were made pursuant to plans that have expired or were terminated.

The Company's stockholders approved the 2017 Incentive Plan in June 2017. The 2017 Incentive Plan allows the Board of Directors to grant up to 4,000,000 shares of common stock to directors, officers, employees and consultants in a combination of equity incentive forms including incentive stock options ("ISOs"), non-qualified stock options ("NQSOs"), stock appreciation rights ("SARs") or restricted shares of common stock.

On October 6, 2023, the Company's stockholders approved the Company's Second Amended and Restated Plan, which amended and restated the Company's Amended and Restated 2020 Equity Incentive Plan in its entirety. The Second Amended and Restated Plan increased the number of shares of common stock available for the grant of awards under the plan by 10,000,000 , to a total of 56,000,000 available shares, implemented an "evergreen" provision, which contemplates that on the first day of each fiscal quarter beginning after the date of the Annual Meeting, unless the Board of Directors of the Company determines otherwise, the number of shares of common stock authorized for issuance under the Second Amended and Restated Plan will be adjusted to be (subject to adjustment in the event of stock splits and other similar events) the greater of 56,000,000 shares of common stock or 13% of the number of shares of common stock issued and outstanding on the last day of the immediately preceding fiscal quarter, and extended the term of the Second Amended and Restated Plan such that it will be terminated, if not earlier terminated, on the 10-year anniversary of October 6, 2023. Under the Second Amended and Restated Plan, the Board of Directors may grant to directors, officers, employees and consultants various forms of equity, including ISOs, NQSOs, SARS, and restricted stock units.

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options which have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions, including the expected stock price volatility. The Company uses the Black-Scholes option valuation model because management believes the model is appropriate for the Company. However, management understands that because changes in the subjective input assumptions can materially affect the fair value estimate, this valuation model does not necessarily provide a reliable single measure of the fair value of its stock options. The risk-free interest rate is based on the U.S. treasury security rate with an equivalent term in effect as of the date of grant. The expected option lives and volatility assumptions are based on historical data of the Company.

The weighted average fair value of stock option awards granted and the key assumptions used in the Black-Scholes valuation model to calculate the fair value are as follows:

	Year ended December 31, 2023			Six months ended December 31, 2022			Year ended June 30, 2022		
Weighted average fair value	$ 0.32			$ 0.26			$ 0.55		
Options issued	21,665,273			4,235,000			3,269,100		
Exercise price	$ 0.24	to	$ 0.69	$ 0.33	to	$ 0.36	$ 0.28	to	$ 0.79
Expected term (in years)	5			5			5		
Risk-free rate	3.84 %	to	4.46 %	2.97 %	to	3.00 %	0.73 %	to	3.24 %
Volatility	93 %	to	108 %	100 %	to	101 %	99 %	to	100 %

The following table presents the share-based compensation expense (in thousands):

	Year ended December 31, 2023	Six months ended December 31, 2022	Year ended June 30, 2022
Research and development expense	$ 968	$ 70	$ 103
General and administrative expense	2,175	426	672
Total share-based compensation	$ 3,143	$ 496	$ 775

The total value of the stock options awards is expensed ratably over the vesting period of the employees receiving the awards. As of December 31, 2023, total unrecognized compensation cost related to stock-based options and awards was approximately $ 4,148,691 and the weighted-average period over which it is expected to be recognized is approximately 2.45 years.

Changes in stock options outstanding during the periods are as follows (in thousands except for exercise prices and terms):

	Options Outstanding	Price (a)	Life (b)	Value (c)
Balance at June 30, 2021	4,514,660	$ 0.67	7.27	$ 984
Granted (d)	3,269,100	0.75		
Expired	(256,060)	0.84		
Forfeited	(488,675)	0.79		
Exercised	(125,000)	0.45		
Balance at June 30, 2022	6,914,025	$ 0.70	7.43	$ 2
Granted (d)	4,235,000	0.34		
Expired	(170,325)	0.81		
Forfeited	(100,000)	0.86		
Exercised	(72,500)	0.40		
Balance at December 31, 2022	10,806,200	$ 0.56	7.93	$ 0
Granted (d)	21,665,273	0.41		
Options assumed with the acquisition of Viewpoint (Note 3)	24,263,424	0.17		
Expired	(2,434,149)	0.53		
Forfeited	(1,255,138)	0.46		
Exercised	(1,913,185)	0.29		
Balance at December 31, 2023	51,132,425	$ 0.33	8.02	$ 6,671
Exercisable at December 31, 2023	35,529,723	$ 0.29	7.32	$ 5,645

(a) Weighted average exercise price per share.
(b) Weighted average remaining contractual life.
(c) Aggregate intrinsic value (in thousands).
(d) All options granted had exercise prices equal to or greater than the ending closing market price of the Company's common stock on the grant date. The options were granted to employees and management by the Compensation Committee and had vesting periods from one year to three years.

	Year ended December 31, 2023	Six months ended December 31, 2022	Year ended June 30, 2022
Aggregate intrinsic value of options exercised (in thousands)	$ 610	$ 1	$ 3

The Company's current policy is to issue new shares to satisfy option exercises.

13. Stockholders' Equity

The authorized capital structure of the Company consists of $.001 par value common stock and $.001 par value preferred stock.

Common Stock

On November 17, 2023, the Company filed a Form S-3 registration statement (File No. 333-275638) (the "2023 Registration Statement") that became effective on December 14, 2023, with the potential to register up to $ 200 million of equity securities. On November 17, 2023, the Company entered into an At Market Issuance Sales Agreement (the "ATM Agreement") with Oppenheimer & Co., Inc., B. Riley Securities, Inc. and JonesTrading Institutional Services LLC (each, an "Agent" and together, the "Agents") to create an "at-the-market" equity program under which the Company from time to time may offer and sell shares (the "ATM Shares") of its common stock, par value $ 0.001 per share ("Company Common Stock"), through or to the Agents. The ATM Agreement was entered into in connection with the Company's filing of the 2023 Registration Statement, which includes a prospectus supplement covering the offering, issuance and sale by the Company of up to $50 million of shares of Company Common Stock that may be issued and sold under the ATM Agreement subject to it being declared effective by the SEC. The common stock sold pursuant to the ATM Agreement was distributed at the market prices prevailing at the time of sale. The ATM Agreement provided that the Agents are entitled to compensation for their services at a commission rate of 3.0 % of the gross sales price per share of common stock sold plus reimbursement of certain expenses. As of December 31, 2023, the Company had sold an aggregate of 1,238,826 shares under the ATM Agreement at an average price of approximately $ 0.303 per common share for gross proceeds of approximately $ 376 thousand and net proceeds of approximately $ 364 thousand.

During the 12 months ended June 30, 2022, the Company received approximately $ 0.06 million as a result of the exercise of 125,000 options to purchase common stock.

During the 6 months ended December 31, 2022, the Company received approximately $ 0.03 million as a result of the exercise of 72,500 options to purchase common stock.

During the 12 months ended December 31, 2023, the Company received approximately $ 0.55 million as a result of the exercise of 1,913,185 options to purchase common stock.

Preferred Stock

The Company's Certificate of Incorporation authorizes 7,000,000 shares of $0.001 par value preferred stock available for issuance with such rights and preferences, including liquidation, dividend, conversion, and voting rights, as described below. In connection with redomiciling the Company to Delaware, Preferred Stock Series A, C and D designations were terminated. There were no shares issued under these Series. Series B is the remaining Series authorized at December 31, 2023 and had no issued and outstanding shares at December 31, 2023.

Warrants

During the year ended December 31, 2023, the Company assumed 3,387,093 warrants in connection with the Viewpoint merger. The warrants had an exercise price of $ 0.27 and expire in November and December 2027.

The following table summarizes the activity of all stock warrants and weighted average exercise prices.

	Warrants	Price (a)
Balance at June 30, 2021	2,645,738	$ 0.70
Warrants issued	-	-
Warrants exercised	-	-
Warrants expired	-	-
Balance at June 30, 2022	2,645,738	$ 0.70
Warrants issued	-	-
Warrants exercised	-	-
Warrants expired	-	-
Balance at December 31, 2022	2,645,738	$ 0.70
Warrants assumed with the acquisition of Viewpoint (Note 3)	3,387,093	0.27
Warrants exercised	-	-
Warrants expired	(272,250)	0.94
Balance at December 31, 2023	5,760,581	$ 0.44

(a) Weighted average exercise price per share.

As of December 31, 2023, the Company had 1,375,000 common warrants outstanding exercisable on or before January 11, 2024, 998,488 common warrants outstanding exercisable on or before October 22, 2025, 1,841,954 common warrants outstanding exercisable on or before November 24, 2027, 898,027 common warrants outstanding exercisable on or before December 18, 2027, and 647,112 common warrants outstanding exercisable on or before December 31, 2027.

14. Income Taxes

The Company's pretax loss for the year ended December 31, 2023, the transition period ended December 31, 2022, and the year ended June 30, 2022 was from its U.S. domestic operations.

The provision (benefit) for income taxes for the year ended December 31, 2023, the transition period ended December 31, 2022, and the year ended June 30, 2022 are as follows (in thousands):

	December 31, 2023	December 31, 2022	June 30, 2022
Current expense (benefit):			
Federal	$ -	$ -	$ -
State	-	-	-
Foreign	-	-	-
Total current expense (benefit):	-	-	-
Deferred expense (benefit):			
Federal	(2,651)	-	-
State	-	-	-
Foreign	-	-	-
Total deferred expense (benefit):	(2,651)	-	-
Total income tax expense (benefit):	$ (2,651)	$ -	$ -

The reconciliation of the US federal statutory rate to the Company's effective income tax for the year ended December 31, 2023, the transition period ended December 31, 2022, and the year ended June 30, 2022 is as follows (in thousands):

	December 31, 2023	December 31, 2022	June 30, 2022
Income tax at U.S. statutory rate	$ (9,298)	$ (1,063)	$ (1,318)
State income taxes, net of federal benefit	(1,022)	3	1
Change in valuation allowance	7,159	1,040	1,222
Tax credits	(709)	(62)	-
Share based compensation	304	70	126
Transaction costs	925	-	-
Other	(10)	12	(32)
	$ (2,651)	$ -	$ -

The significant components of the Company's deferred tax assets and liabilities for the year ended December 31, 2023 and the transition period ended December 31, 2022 are as follows (in thousands):

	December 31, 2023	December 31, 2022
Deferred tax assets:		
Net operating loss carryforwards	$ 26,758	$ 19,145
Share-based compensation	3,214	722
Tax credits	1,379	562
Capital loss carryforwards	902	-
Accruals and reserves	240	176
Lease liability	179	(1)
Capitalized R&D costs	6,299	(18)
Other	(143)	3
Total deferred tax assets	38,828	20,589
Valuation allowance	(29,956)	(20,605)
Net deferred tax assets	8,872	(15)
Deferred tax liabilities:		
Property, plant, and equipment	(387)	6
Intangibles	(12,915)	9
Right of use asset	(162)	0
Total deferred tax liabilities	(13,464)	15
Net deferred tax assets (liabilities)	$ (4,592)	$ (0)

The future realization of the tax benefits from existing temporary differences, net operating loss carryforwards and other tax attributes ultimately depends on the existence of sufficient taxable income within the carryforward period. Therefore, at each balance sheet reporting date, the Company assesses the realizability of its deferred tax assets whether it is more likely than not that some portion or all its deferred tax assets will not be realized. In assessing the realizability of its deferred tax assets, the Company considers all available evidence, both positive and negative, including results of operations in recent years, projected future taxable income, expected reversal of existing deferred tax liabilities, and tax planning strategies in making its assessment. After considering all available evidence, the Company has determined that it is more likely than not that its net deferred tax assets will not be realized in the foreseeable future. Therefore, the Company continues to maintain a valuation allowance against its net deferred tax assets as of December 31, 2023.

The activity in the Company's deferred tax asset valuation allowance for the year ended December 31, 2023 and the transition period ended December 31, 2022 is as follows (in thousands):

	December 31, 2023	December 31, 2022
Valuation allowance at beginning of the period	$ 20,605	$ 19,074
Increases recorded to income tax provision (benefit)	7,159	1,040
Increases recorded to goodwill	1,271	-
Other increases	921	491
Valuation allowance at end of the period	$ 29,956	$ 20,605

As of December 31, 2023, the Company has U.S. Federal net operating loss carryforwards of $ 121.2 million which includes $ 60.1 million that have an unlimited carryforward period and $ 61.1 million that expire at various dates between 2024 and 2037. As of December 31, 2023, the Company has various state net operating loss carryforwards of $ 55.1 million that expire at various dates between 2033 and 2043.

As of December 31, 2023, the Company has U.S. Federal research and development credits of $ 1.3 million that expire at various dates between 2035 and 2042, and state research and development credits of $ 0.1 million that begin to expire between 2036 and 2037.

The future realization of the Company's net operating loss carryforwards and other tax attributes may be limited by the change in ownership rules under the U.S. Internal Revenue Code Section 382. Under Section 382, if a corporation undergoes an ownership change, the Company's ability to utilize its net operating loss carryforwards and other tax attributes to offset income may be subject to an annual limitation. As of December 31, 2023, the Company has not completed a study to assess whether an ownership change has occurred or whether there have been multiple ownership changes.

The Tax Cuts and Jobs Act of 2017 amended Section 174 relating to the US federal tax treatment of research or experimental ("R&E") expenditures paid or incurred during the taxable year. The amended rules under Section 174 are effective in 2022 and require taxpayers to capitalize and amortize specified R&E expenditures over a period of five years (if attributable to US-based research) or 15 years (if attributable to foreign-based research). Additionally, the new rules now include software development costs as R&E that must also be capitalized and amortized accordingly. As of December 31, 2023, the Company capitalized a significant amount of R&E related to research and development activities performed in the US.

The Company files income tax returns in the U.S. including various states, therefore the Company is subject to tax examination by various taxing authorities. The Company is not currently under examination and is not aware of any issues under review that could result in significant payments, accruals or material deviation from its tax positions. To the extent the Company has tax attribute carryforwards, the tax years in which the attribute was generated may still be adjusted upon examination by local tax authorities to the extent such tax attribute is utilized in a future period. As of December 31, 2023, the tax years from 2020 to present remain open to examination by the various US taxing authorities. However, to the extent the Company utilizes net operating losses from years prior to 2020, the statute remains open to the extent of the net operating losses or other credits that are utilized.

The calculation and assessment of the Company's income tax exposures generally involves the uncertainties in the application of complex tax laws and regulations for federal and state jurisdictions. A tax benefit from an uncertain tax position may be recognized when it is more likely than not that the position will be sustained upon examination including resolutions of any related appeals or litigation on the basis of the technical merits. As of December 31, 2023 and 2022, the Company has not recorded any liabilities for uncertain tax positions or any other unrecognized tax benefits. Similarly, the Company has not accrued any related interest and penalties as of December 31, 2023 and 2022.

15. 401(k) and Profit-Sharing Plan

The Company has a 401(k) plan ("Isoray 401(k)"), which commenced in fiscal year 2007, covering all eligible full-time employees of the Company. Contributions to the Isoray 401(k) are made by the participants to their individual accounts through payroll withholding. The Isoray 401(k) also allows the Company to make contributions at the discretion of management. Through December 31, 2022, the Company had not made any contributions to the Isoray 401(k). Beginning January 1, 2022, the Company implemented a Company 401(k) match where 50 % of the first 4 % of the participants contributions were matched, up to a maximum company match of 2 % of eligible compensation. The Company matching contributions were made during January 2023 for the Isoray 401(k) plan year January 1, 2022 to December 31, 2022. Beginning January 1, 2023, the Company changed its 401(k) match for the Isoray 401(k) where 100 % of the first 4 % of the participants contributions were matched, up to a maximum company match of 4 % of eligible compensation. The Company matching contributions were made during January 2024 for the Isoray 401(k) plan year January 1, 2023 to December 31, 2023.

From the merger date through December 31, 2023, Viewpoint had a separate 401(k) plan ("Viewpoint 401(k)") with a company match where 100 % of the first 6 % of participants contributions were matched, up to a maximum company match of 6 % of eligible compensation.

Beginning January 1, 2024, the Company merged the Isoray 401(k) and Viewpoint 401(k) into a new 401(k) plan with a company match where 100 % of the first 4 % of the participants contributions will be matched, up to a maximum company match of 4 % of eligible compensation. For the year ended December 31, 2023, the six-month transition ended December 31, 2022, and year ended June 30, 2022, we recognized $ 345 thousand, $ 24 thousand, and $ 23 thousand in employer matching expense.

16. Commitments and Contingencies

The Company has been in settlement negotiations with a representative for six stockholder plaintiff firms alleging the Company violated Delaware law in its preliminary proxy statement that was disseminated to stockholders in November 2022 for the Company's annual meeting held in December 2022. Based on these settlement negotiations to date, the Company does not believe it will settle for more than $200 thousand and, therefore, recorded an estimated liability of $ 200 thousand as of December 31, 2022. For the six-month transition period ending December 31, 2022, this was recorded in general and administrative expenses on the statement of operations and accrued expenses on the balance sheet. At December 31, 2023, the Company continues to maintain this $ 200 thousand estimated liability.

In the ordinary course of business, the Company may provide indemnification of varying scope and terms to vendors, business partners and other parties with respect to certain matters including, but not limited to, losses arising out of breach of such agreements or from intellectual property infringement claims made by third parties. In addition, the Company has entered into indemnification agreements with members of its Board of Directors and all of its executive officers that will require the Company, among other things, to indemnify them against certain liabilities that may arise by reasons of their status or service as directors or officers. The maximum potential amount of future payments the Company could be required to make under these indemnification agreements is, in many cases, unlimited. To date, the Company has not incurred any material costs as a result of such indemnifications. The Company is not currently aware of any indemnification claims and has not accrued any liabilities related to such obligations in its consolidated financial statements as of December 31, 2023 or 2022.

17. Concentrations of Credit and Other Risks

The Company's financial instruments that are exposed to concentrations of credit risk consist primarily of cash, cash equivalents, restricted cash, accounts receivable and short-term investments.

The Company's cash and cash equivalents are maintained with high-quality financial institutions or U.S. Treasury Bills.

The Company's short-term investments were U.S. Treasury Bills at December 31, 2022 and there were no short-term investments at December 31, 2023.

The Company routinely assesses the financial strength of its receivables and provides an allowance for doubtful accounts as necessary. At December 31, 2023 and 2022, the allowance was approximately $ 650 thousand and $ 26 thousand, respectively.

18. Transitional Period Comparative Data

The following table presents certain comparative financial information for the years ended December 31, 2023 and 2022 (dollars and shares in thousands, except for per share amounts):

	Year ended December 31,	
	2023	2022 (unaudited)
Grant revenue	$ 1,434	$ -
Gross profit	1,434	-
Operating expenses:		
Research and development	21,311	881
General and administrative	21,064	7,486
Loss on equipment disposal	-	305
Total operating expenses	42,375	8,672
Operating loss	(40,941)	(8,672)
Non-operating income:		
Interest income, net	934	618
Interest expense	(84)	-
Other income	2	-
Equity in loss of affiliate	(17)	-
Total non-operating income	835	618
Net loss from continuing operations	(40,106)	(8,054)
Net loss from discontinued operations	(9,053)	(2,706)
Net loss before deferred income tax benefit	(49,159)	(10,760)
Deferred income tax benefit	2,651	-
Net loss	(46,508)	(10,760)
Basic and diluted loss per share:		
Loss from continuing operations	$ (0.14)	$ (0.06)
Loss from discontinued operations	(0.03)	(0.02)
Basic and diluted loss per share	$ (0.17)	$ (0.08)
Weighted average shares used in computing net loss per share:		
Basic and diluted	267,643	142,067

	Year ended December 31,	
	2023	2022 (unaudited)
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (46,508)	$ (10,760)
Adjustments to reconcile net loss to net cash used by operating activities:		
Lease expense	75	6
Depreciation expense	946	267
Write-off of inventory associated with discontinued product	298	-
Loss on disposal of property and equipment	22	305
Amortization of other assets	40	41
Accretion of asset retirement obligation	35	33
Equity in loss of affiliate	17	-
Accrued interest on short-term investments	-	(226)
Change in allowance for doubtful accounts	624	-
Change in estimate of asset retirement obligation	(15)	-
Loss recognized on classification as held for sale	4,170	-
Share-based compensation	3,738	983
Deferred tax benefit	(2,651)	-
Changes in operating assets and liabilities:		
Accounts receivable, net	(426)	284
Inventory	359	(1,996)
Prepaid expenses and other current assets	(325)	(151)
Accounts payable and accrued expenses	1,584	692
Accrued protocol expense	89	80
Accrued radioactive waste disposal	(100)	26
Accrued payroll and related taxes	1,274	(11)
Accrued vacation	(159)	26
Net cash used by operating activities	(36,913)	(10,401)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Additions to property and equipment	(1,072)	(282)
Addition to other assets	(18)	(18)
Additions to equity method investment	-	(150)
Proceeds from maturity of short-term investments	22,764	12,538
Purchases of short-term investments	-	(35,076)
Investment in note receivable	-	(6,000)
Net cash acquired in acquisition of Viewpoint	2,699	-
Net provided by (used in) investing activities	24,373	(28,988)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Repayment of notes payable	(68)	-
Proceeds from issuances of common stock, pursuant to exercise of options	554	28
Proceeds from sales of common stock, pursuant to at the market offering, net	364	-
Issuance costs related to common stock issued in exchange for Viewpoint common stock	(65)	-
Net cash provided by financing activities	785	28
Net decrease in cash, cash equivalents, and restricted cash	(11,755)	(39,361)
Cash, cash equivalents, and restricted cash beginning of period	21,175	60,536
CASH, CASH EQUIVALENTS, AND RESTRICTED CASH END OF PERIOD	$ 9,420	$ 21,175
Reconciliation of cash, cash equivalents, and restricted cash to the consolidated balance sheets:		
Cash and cash equivalents	$ 9,238	$ 20,993
Restricted cash	182	182
Total cash, cash equivalents, and restricted cash shown on the consolidated statements of cash flows	$ 9,420	$ 21,175

19. Related Parties

During the year ended June 30, 2022, the Company engaged with SphereRx, LLC, owned by Lori Woods, our Chairperson and board member, to assist in making payments to suppliers in Russia as our bank had an internal policy that it could not send wires to Russia due to the ongoing Russia-Ukrainian conflict. There were four payments totaling $ 2,389,787 . The Company reimbursed SphereRx, LLC for wire fees. There was no other consideration or compensation related to these payments.

During the year ended December 31, 2023, and the transition period ended December 31, 2022, there were no related party transactions.

20. Subsequent Events

March 2024 Private Placement with Institutional Investors

On March 4, 2024, Perspective entered into an investment agreement (the "March 2024 Investment Agreement") with certain accredited institutional investors ("Institutional Investors") pursuant to which Perspective agreed to issue and sell, in a private placement (the "March 2024 Private Placement"), 92,009,981 shares of Perspective's common stock for a purchase price of $ 0.95 per share, representing the closing price of the Common Stock on March 1, 2024. The closing of the March 2024 Private Placement occurred on March 6, 2024 (the "March 2024 Closing").

The gross proceeds to the Company from the March 2024 Private Placement were approximately $ 87.4 million, before deducting fees payable to the Placement Agents (as defined below) and other estimated transaction expenses. Perspective intends to use the net proceeds from the March 2024 Private Placement for general corporate and working capital purposes, which may include research and development expenditures, preclinical study and clinical trial expenditures, manufacturing expenditures, commercialization expenditures, capital expenditures, acquisitions of new technologies, products or businesses and investments.

The March 2024 Investment Agreement contains customary representations, warranties and agreements by the Company and the Institutional Investors, indemnification obligations of the Company and the Institutional Investors, other obligations of the parties and termination provisions.

The March 2024 Private Placement was conducted pursuant to a Placement Agency Agreement, dated March 4, 2024 (the "Placement Agency Agreement"), by and between Perspective and Oppenheimer & Co. Inc., as representative of the placement agents named therein (the "Placement Agents"). Per the Placement Agency Agreement, Perspective agreed to: (i) pay the Placement Agents a cash fee equal to 5.85 % of the gross proceeds received by the Company from the sale of the Shares; and (ii) reimburse the Placement Agents for certain fees and expenses. The Placement Agency Agreement also contains representations, warranties, indemnification and other provisions customary for transactions of this nature.

Lantheus Agreements

Investment Agreement

On January 8, 2024, Perspective entered into an investment agreement (the "Lantheus Investment Agreement") with Lantheus Alpha Therapy, LLC, a Delaware limited liability company and wholly owned subsidiary of Lantheus Holdings, Inc. ("Lantheus"), pursuant to which Perspective agreed to sell and issue to Lantheus in a private placement transaction (the "Lantheus Private Placement") certain shares (the "Lantheus Shares") of Perspective's Common Stock. The closing of the purchase and sale of the Lantheus Shares to Lantheus by Perspective (the "Lantheus Closing") were subject to Perspective raising at least $ 50.0 million of gross proceeds (excluding Lantheus' investment) in a qualifying third-party financing transaction, which occurred on January 22, 2024.

The number of Lantheus Shares sold was 56,342,355 , representing 19.99 % of the outstanding shares of Common Stock as of January 8, 2024. Pursuant to the Lantheus Investment Agreement, Perspective agreed to cooperate in good faith to negotiate and enter into a registration rights agreement with Lantheus, obligating Perspective to file a registration statement on Form S-3 with the U.S. Securities and Exchange Commission to register for resale the Lantheus Shares issued at the Lantheus Closing. The Lantheus Investment Agreement also contains agreements of Perspective and Lantheus whereby Lantheus is provided certain board observer and information rights of Perspective, as well as standstill provisions prohibiting Lantheus from taking certain actions for a specified period of time, subject to certain exceptions.

The Lantheus Investment Agreement also provides Lantheus with certain pro rata participation rights to maintain its ownership position in Perspective in the event that Perspective makes any public or non-public offering of any equity or voting interests in Perspective or any securities that are convertible or exchangeable into (or exercisable for) equity or voting interests in Perspective, subject to certain exceptions.

Pursuant to the Lantheus Investment Agreement, Perspective is required to notify Lantheus within 10 business days of the end of a fiscal quarter in which Perspective issued shares of Common Stock pursuant to that certain At Market Issuance Sales Agreement among Perspective, Oppenheimer & Co. Inc., B. Riley Securities, Inc., and JonesTrading Institutional Services LLC dated November 17, 2023 (the "ATM Agreement"), of (i) the number of shares of Common Stock issued during such fiscal quarter pursuant to the ATM Agreement and (ii) the average price per share received by Perspective before commissions (the "ATM Average Price"). Upon receipt of such notice, Lantheus may elect, at its option, to purchase all or a portion of its Pro Rata Portion (as defined in the Lantheus Investment Agreement) of such shares at an aggregate price equal to the number of shares purchased multiplied by the ATM Average Price for such quarter (the "ATM Participation Right"). Pursuant to the Lantheus Investment Agreement, Lantheus may not exercise the ATM Participation Right more than two times per calendar year.

Asset Purchase Agreement

On January 8, 2024, Perspective entered into an Asset Purchase Agreement (the "Progenics APA") with Progenics Pharmaceuticals, Inc., a Delaware corporation ("Progenics") and affiliate of Lantheus, pursuant to which Perspective will acquire certain assets and the associated lease of Progenics' radiopharmaceutical manufacturing facility in Somerset, New Jersey for a purchase price of $ 8.0 million in cash. The closing of the transactions pursuant to the Progenics APA was subject to customary closing conditions, including regulatory approval. The transactions contemplated by the Progenics APA closed on March 1, 2024.

Option Agreement

On January 8, 2024, Perspective entered into that certain Option Agreement (the "Option Agreement" and together with the Lantheus Investment Agreement and the Progenics APA, the "Agreements") with Lantheus whereby Lantheus was granted an exclusive option to negotiate an exclusive, worldwide, royalty- and milestone-bearing right and license to [212Pb]VMT-α-NET, the Company's clinical-stage alpha therapy developed for the treatment of neuroendocrine tumors and a right to co-fund the Investigational New Drug ("IND") application, enabling studies for early-stage therapeutic candidates targeting prostate-specific membrane antigen and gastrin-releasing peptide receptor and, prior to IND filing, a right to negotiate for an exclusive license to such candidates. In consideration of the rights granted by the Company to Lantheus pursuant to the Option Agreement, Lantheus will pay to Perspective a one-time payment of $ 28.0 million, subject to certain withholding provisions related to the closing contemplated by the Progenics APA.

Under the terms of the Option Agreement, Lantheus also has a right of first offer and last look protections for any third-party merger and acquisition transactions involving the Company for a 12-month period beginning on January 8, 2024.

The Agreements contain customary representations, warranties and covenants that were made solely for the benefit of the parties to the Agreements. Such representations, warranties and covenants (i) are intended as a way of allocating risk between the parties to the Agreements and not as statements of fact and (ii) may apply standards of materiality in a way that is different from what may be viewed as material by stockholders of, or other investors in, Perspective. Accordingly, the Agreements are being disclosed only to provide investors with information regarding the terms of the transaction and not to provide investors with any other factual information regarding Perspective. Moreover, information concerning the subject matter of the representations and warranties may change after the date of the Agreements, which subsequent information may or may not be fully reflected in public disclosures.

January 2024 Public Offering

On January 17, 2024, Perspective entered into an underwriting agreement (the "Underwriting Agreement") with Oppenheimer & Co. Inc., as representative of the underwriters named therein (the "Underwriters"), in connection with its previously announced underwritten public offering (the "Public Offering") of 132,075,218 shares (the "Public Shares") of Perspective's Common Stock and, in lieu of Public Shares to certain investors, pre-funded warrants (the "Pre-funded Warrants") to purchase 30,086,944 shares of Common Stock. The price to the public for the Public Shares was $ 0.37 per Public Share, and the price to the public for the Pre-funded Warrants was $ 0.369 per Pre-funded Warrant, which represents the per share price for the Public Shares less the $ 0.001 per share exercise price for each such Pre-funded Warrant. Under the terms of the Underwriting Agreement, Perspective granted the Underwriters an option, exercisable for 30 days, to purchase up to an additional 24,324,324 shares of Common Stock at the same price per share as the Public Shares, which such option was fully exercised by the Underwriters on January 18, 2024. The Public Offering closed on January 22, 2024.

The gross proceeds to Perspective from the Public Offering were approximately $ 69.0 million, before underwriting discounts and commissions and estimated expenses of the Public Offering.

Perspective intends to use the net proceeds from the Public Offering for general corporate purposes, which may include research and development expenditures, preclinical study and clinical trial expenditures, manufacturing expenditures, commercialization expenditures, working capital, capital expenditures, acquisitions of new technologies, products or businesses and investments.

The Public Offering was made pursuant to Perspective's shelf registration statement on Form S-3 (File No. 333-275638), declared effective by the Securities and Exchange Commission on December 14, 2023, a base prospectus dated December 14, 2023, and the related prospectus supplement dated January 17, 2024.

The Pre-funded Warrants are exercisable at any time after the date of issuance. The exercise price and the number of shares of Common Stock issuable upon exercise of each Pre-funded Warrant (the "Warrant Shares") are subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting the Common Stock as well as upon any distribution of assets, including cash, stock or other property, to Perspective's stockholders. The Pre-funded Warrants will not expire and are exercisable in cash or by means of a cashless exercise. A holder of Pre-funded Warrants may not exercise such Pre-funded Warrants if the aggregate number of shares of Common Stock beneficially owned by such holder, together with its affiliates, would beneficially own more than 4.99% of the issued and outstanding shares of Common Stock following such exercise, as such percentage ownership is determined in accordance with the terms of the Pre-funded Warrants. A holder of Pre-funded Warrants may increase or decrease this percentage not in excess of 19.99% by providing at least 61 days' prior notice to Perspective.

The Underwriting Agreement contains customary representations, warranties and agreements by Perspective, customary conditions to closing, indemnification obligations of Perspective and the Underwriters, including for liabilities under the Securities Act of 1933, as amended, other obligations of the parties and termination provisions. The representations, warranties and covenants contained in the Underwriting Agreement were made only for purposes of such agreement and as of specific dates, were solely for the benefit of the parties to such agreement and may be subject to limitations agreed upon by the contracting parties.

Exhibit 4.1

DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

As of the date of the Annual Report on Form 10-K of which this exhibit forms a part, the only class of securities of Perspective Therapeutics, Inc. ("we," "us" and "our") registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), is our common stock, $0.001 par value per share.

The following description of our common stock summarizes provisions of our Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation"), our Amended and Restated Bylaws (the "Bylaws") and the Delaware General Corporation Law (the "DGCL"). For a complete description, refer to our Certificate of Incorporation and our Bylaws, which are incorporated by reference as exhibits to the Annual Report on Form 10-K of which this exhibit is a part, and to the applicable provisions of the DGCL.

General

We are authorized to issue up to 750,000,000 shares of common stock, par value $0.001 per share.

The holders of our common stock have no preemptive or other subscription rights, and there are no conversion rights or redemption or sinking fund provisions with respect to such shares of common stock. All of the outstanding shares of our common stock are, and the shares of our common stock when issued will be, fully paid and nonassessable.

Voting. Holders of our common stock are entitled to one vote per share of common stock on all matters to be voted on by our stockholders, provided, however, that, except as otherwise required by law, holders of common stock are not entitled to vote on any amendment to the Certificate of Incorporation that relates solely to the terms of one or more outstanding series of preferred stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more other such series, to vote thereon pursuant to the Certificate of Incorporation. The Bylaws provide that except as otherwise provided by applicable law, the Certificate of Incorporation, or the Bylaws, the presence, in person or by proxy, of the holders of a majority of the voting power of all outstanding shares of stock entitled to vote at the meeting constitutes a quorum.

Dividends. Our Board of Directors (the "Board"), in its sole discretion, may declare and pay dividends on our common stock, payable in cash or other consideration, out of funds legally available, if all dividends due on the preferred stock have been declared and paid. We have not paid any cash dividends on our common stock and do not plan to pay any cash dividends on our common stock for the foreseeable future.

Liquidation, Subdivision, or Combination. In the event of any liquidation, dissolution or winding up of us or upon the distribution of our assets, all assets and funds remaining after payment in full of our debts and liabilities, and after the payment to holders of any then outstanding preferred stock of the full preferential amounts to which they were entitled, would be divided and distributed among holders of the common stock.

Registration Rights

In connection with the Merger Agreement, on January 31, 2023, we entered into a Registration Rights and Lock-Up Agreement with each of the stockholders of Viewpoint (the "Registration Rights Agreement"). Pursuant to the Registration Rights Agreement (i) we agreed to file a resale registration statement for the Registrable Securities (as defined therein) no later than 30 days following the closing of the merger, and to use commercially reasonable efforts to cause it to become effective as promptly as practicable following such filing, (ii) the stockholders have been granted certain piggyback registration rights with respect to registration statements filed subsequent to the closing of the merger, and (iii) the Lock-Up Holders (as defined in therein) agreed, subject to certain customary exceptions, not to sell, transfer, or dispose of any of our common stock until the earlier of (a) six months, or (b) the date on which we complete a liquidation, merger, capital stock exchange, reorganization or other similar transaction that results in all of our stockholders having the right to exchange their shares of common stock for cash, securities, or other property.

Anti-Takeover Provisions

Section 203 of the Delaware General Corporation Law

Pursuant to the Certificate of Incorporation, we elected not to be governed by Section 203 of the DGCL, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with certain exceptions.

Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Because our stockholders do not have cumulative voting rights, stockholders holding a majority of the shares of common stock outstanding are able to elect all of our directors. The Bylaws provide that directors may be removed by the stockholders with or without cause upon the vote of a majority of the shares then entitled to vote at an election of directors. Furthermore, the authorized number of directors may be changed only by resolution of our Board, and vacancies and newly created directorships on our Board may, except as otherwise required by law or the Certificate of Incorporation, only be filled by a majority vote of the directors then serving on our Board, even though less than a quorum.

The Bylaws also provide that stockholders seeking to present proposals before a meeting of stockholders to nominate candidates for election as directors or any other business to be properly brought at a meeting of stockholders must provide timely advance notice in writing and specify requirements as to the form and content of a stockholder's notice.

The Certificate of Incorporation provides our Board the authority, without further action by our stockholders, to issue up to 7,000,000 shares of preferred stock in one or more series, with any rights, preferences and privileges as they may designate, including the right to approve an acquisition or other change in control.

The combination of these provisions makes it more difficult for our existing stockholders to replace our Board as well as for another party to obtain control of us by replacing our Board. Since our Board has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our Board to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of us.

These provisions are intended to enhance the likelihood of continued stability in the composition of our Board and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce our vulnerability to hostile takeovers and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of delaying changes in our control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts. We believe that the benefits of these provisions, including increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure our company, outweigh the disadvantages of discouraging takeover proposals, because negotiation of takeover proposals could result in an improvement of their terms.

Choice of Forum

Our Bylaws provide that, unless we consent in writing to the selection of an alternative forum, the sole and exclusive forum for any claim or counterclaim, including without limitation (i) any derivative action or proceeding brought on behalf of the us, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the DGCL, or (iv) any action asserting a claim governed by the internal affairs doctrine, shall be a state or federal court located within the State of Delaware, in all cases subject to the court having personal jurisdiction over the indispensable parties named as defendants. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions. In such instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of our Bylaws. This may require significant additional costs associated with resolving such action in other jurisdictions and there can be no assurance that the provisions will be enforced by a court in those other jurisdictions.

These exclusive forum provisions may result in increased costs for investors to bring a claim. Further, these exclusive forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, or other employees, which may discourage lawsuits against us and our directors, officers and other employees. If a court were to find the exclusive-forum provision in our Bylaws to be inapplicable or unenforceable in an action, we may incur further significant additional costs associated with resolving the dispute in other jurisdictions, all of which could seriously harm our business.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A . The transfer agent's address is 462 South 4th Street, Suite 1600, Louisville, Kentucky 40202, and its telephone number is (800) 962-4284.

Listing

Our common stock is listed on the NYSE American under the trading symbol "CATX."

Exhibit 10.6

FORM OF INDEMNIFICATION AGREEMENT

This INDEMNIFICATION AGREEMENT (the "Agreement") is made and entered into as of _____, 20___, but effective as of [●], between Perspective Therapeutics, Inc., a Delaware corporation ("Perspective" or the "Company"), and _____ ("Indemnitee").

WHEREAS:

1. Highly competent persons have become more reluctant to serve corporations as directors and officers or in other capacities unless they are provided with adequate protection through insurance or adequate indemnification against inordinate risks of claims and actions against them arising out of their service to and activities on behalf of the Company;

2. The Board of Directors of the Company (the "Board") has determined that, in order to attract and retain qualified individuals, the Company will attempt to maintain on an ongoing basis, at its sole expense, liability insurance to protect persons serving the Company and its subsidiaries from certain liabilities. Although the furnishing of such insurance has been a customary and widespread practice among United States-based corporations and other business enterprises, the Company believes that, given current market conditions and trends, such insurance may be available to it in the future only at higher premiums and with more exclusions. At the same time, directors, officers, and other persons in service to corporations or business enterprises are being increasingly subjected to expensive and time-consuming litigation relating to, among other things, matters that traditionally would have been brought only against the Company or business enterprise itself. The Amended and Restated Certification of Incorporation of the Company (the "Certificate of Incorporation") requires indemnification of officers and directors of the Company. Indemnitee may also be entitled to indemnification pursuant to the General Corporation Law of Delaware ("DGCL"). The Certificate of Incorporation and the DGCL expressly provide that the indemnification provisions set forth therein are not exclusive, and thereby contemplate that contracts may be entered into between the Company and members of the Board, officers and other persons with respect to indemnification;

3. The uncertainties relating to such insurance and to indemnification have increased the difficulty of attracting and retaining such persons;

4. The Board has determined that the increased difficulty in attracting and retaining such persons is detrimental to the best interests of the Company's stockholders and that the Company should act to assure such persons that there will be increased certainty of such protection in the future;

5. It is reasonable, prudent and necessary for the Company contractually to obligate itself to indemnify, and to advance expenses on behalf of, such persons to the fullest extent permitted by applicable law so that they will serve or continue to serve the Company free from undue concern that they will not be so indemnified;

6. This Agreement is a supplement to and in furtherance of the Certificate of Incorporation and any resolutions adopted pursuant thereto, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder; and

7. Indemnitee does not regard the protection available under the Company's insurance as adequate in the present circumstances, and may not be willing to serve as an officer or director without adequate protection, and the Company desires Indemnitee to serve in such capacity. Indemnitee is willing to serve, continue to serve and to take on additional service for or on behalf of the Company on the condition that Indemnitee be so indemnified.

NOW, THEREFORE, in consideration of Indemnitee's agreement to serve as an officer or director from and after the date hereof, the parties to this Agreement agree as follows:

1 . Indemnity of Indemnitee. The Company will hold harmless and indemnify Indemnitee to the fullest extent permitted by law, as such law may be amended from time to time. In furtherance of the foregoing indemnification, and without limiting the generality thereof:

(a) Proceedings Other than Proceedings by or in the Right of the Company. Indemnitee shall be entitled to the rights of indemnification provided in this Section 1(a) if, by reason of Indemnitee's Corporate Status (as defined below), Indemnitee is, or is threatened to be made, a party to or participant in any Proceeding (as defined below) other than a Proceeding by or in the right of the Company. Pursuant to this Section 1(a), Indemnitee must be indemnified against all Expenses (as defined below), judgments, penalties, fines, and amounts paid in settlement actually and reasonably incurred by Indemnitee, or on Indemnitee's behalf, in connection with such Proceeding or any claim, issue or matter relating to the Proceeding, if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, and with respect to any criminal Proceeding, had no reasonable cause to believe Indemnitee's conduct was unlawful.

(b) Proceedings by or in the Right of the Company. Indemnitee will be entitled to the rights of indemnification provided in this Section 1(b) if, by reason of Indemnitee's Corporate Status, Indemnitee is, or is threatened to be made, a party to or participant in any Proceeding brought by or in the right of the Company. Pursuant to this Section 1(b), Indemnitee must be indemnified against all Expenses actually and reasonably incurred by Indemnitee, or on Indemnitee's behalf, in connection with such Proceeding if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company; provided, however, if applicable law so provides, no indemnification against such Expenses shall be made in respect of any claim, issue or matter in such Proceeding as to which Indemnitee shall have been adjudged to be liable to the Company unless and to the extent that the Court of Chancery of the State of Delaware (the "Delaware Court") shall determine that such indemnification may be made.

(c) Indemnification for Expenses of a Party Who is Wholly or Partly Successful. Notwithstanding any other provision of this Agreement, to the extent that Indemnitee is, by reason of Indemnitee's Corporate Status, a party to (or participant in) and is successful, on the merits or otherwise, in any Proceeding, Indemnitee must be indemnified to the maximum extent permitted by law, as such may be amended from time to time, against all Expenses actually and reasonably incurred by Indemnitee, or on Indemnitee's behalf, in connection with the Proceeding. If Indemnitee is not wholly successful in such Proceeding but is successful, on the merits or otherwise, as to one (1) or more but less than all claims, issues or matters in the Proceeding, the Company must indemnify Indemnitee against all Expenses actually and reasonably incurred by Indemnitee, or on Indemnitee's behalf, in connection with each successfully resolved claim, issue or matter. For purposes of this Section 1 and without limitation, the termination of any claim, issue or matter in such a Proceeding by dismissal, with or without prejudice, shall be deemed to be a successful result as to such claim, issue or matter.

(d) Partial Indemnification. If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of Expenses, but not, however, for the total amount thereof, the Company shall nevertheless indemnify Indemnitee for the portion thereof to which Indemnitee is entitled.

2. Additional Indemnity. In addition to, and without regard to any limitations on, the indemnification provided for in Section 1 of this Agreement, the Company must and will indemnify and hold harmless Indemnitee against all Expenses, judgments, penalties, fines, and amounts paid in settlement actually and reasonably incurred by Indemnitee, or on Indemnitee's behalf, if, by reason of Indemnitee's Corporate Status, Indemnitee is, or is threatened to be made, a party to or participant in any Proceeding (including a Proceeding by or in the right of the Company), including, without limitation, all liability arising out of the negligence or active or passive wrongdoing of Indemnitee. The only limitation that will exist upon the Company's obligations pursuant to this Agreement will be that the Company will not be obligated to make any payment to Indemnitee that is finally determined (under the procedures, and subject to the presumptions, set forth in Sections 6 and 7 hereof) to be unlawful.

3. Contribution.

(a) Whether or not the indemnification provided in Sections 1 and 2 of this Agreement is available, in respect of any Proceeding in which the Company is jointly liable with Indemnitee (or would be if joined in such Proceeding), the Company must pay, in the first instance, the entire amount of any judgment or settlement of that Proceeding without requiring Indemnitee to contribute to that payment and the Company waives and relinquishes any right of contribution it may have against Indemnitee. The Company must not enter into any settlement of any Proceeding in which the Company is jointly liable with Indemnitee (or would be if joined in such Proceeding) unless that settlement provides for a full and final release of all claims asserted against Indemnitee.

(b) Without diminishing or impairing the obligations of the Company set forth in Section 3(a), if, for any reason, Indemnitee elects or is required to pay all or any portion of any judgment or settlement in any Proceeding in which the Company is jointly liable with Indemnitee (or would be if joined in such Proceeding), the Company must contribute to the amount of Expenses, judgments, fines, and amounts paid in settlement actually and reasonably incurred and paid or payable by Indemnitee in proportion to the relative benefits received by the Company and all officers, directors, or employees of the Company, other than Indemnitee, who are jointly liable with Indemnitee (or would be if joined in that action, suit, or proceeding), on the one hand, and Indemnitee, on the other hand, from the transaction(s) or event(s) from which that Proceeding arose; provided, however, that the proportion determined on the basis of relative benefit may, to the extent necessary to conform to law, be further adjusted by reference to the relative fault of the Company and all officers, directors, or employees of the Company other than Indemnitee who are jointly liable with Indemnitee (or would be if joined in that action, suit, or proceeding), on the one hand, and Indemnitee, on the other hand, in connection with the transaction(s) or event(s) that resulted in the Expenses, judgments, fines, or settlement amounts, as well as any other equitable considerations which the applicable law may require to be considered. The relative fault of the Company and all officers, directors, or employees of the Company, other than Indemnitee, who are jointly liable with Indemnitee (or would be if joined in such Proceeding), on the one hand, and Indemnitee, on the other hand, will be determined by reference to, among other things, the degree to which their actions were motivated by intent to gain personal profit or advantage, the degree to which their liability is primary or secondary, and the degree to which their conduct is active or passive.

(c) The Company hereby agrees to fully indemnify and hold Indemnitee harmless from any claims of contribution which may be brought by officers, directors, or employees of the Company, other than Indemnitee, who may be jointly liable with Indemnitee.

(d) To the fullest extent permissible under applicable law, if the indemnification provided for in this Agreement is unavailable to Indemnitee for any reason whatsoever, the Company, in lieu of indemnifying Indemnitee, shall contribute to the amount incurred by Indemnitee, whether for judgments, fines, penalties, excise taxes, amounts paid or to be paid in settlement and/or for Expenses, in connection with any claim relating to an indemnifiable event under this Agreement, in such proportion as is deemed fair and reasonable in light of all of the circumstances of such Proceeding in order to reflect (i) the relative benefits received by the Company and Indemnitee as a result of the event(s) and/or transaction(s) giving cause to such Proceeding; and/or (ii) the relative fault of the Company (and its directors, officers, employees and agents) and Indemnitee in connection with such event(s) and/or transaction(s).

4. Indemnification for Expenses of a Witness. Notwithstanding any other provision of this Agreement, to the extent that Indemnitee is, by reason of Indemnitee's Corporate Status, a witness in any Proceeding to which Indemnitee is not a party, Indemnitee shall be indemnified against all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection therewith.

5. Advancement of Expenses. Notwithstanding any other provision of this Agreement, the Company must advance all Expenses incurred by or on behalf of Indemnitee in connection with any Proceeding by reason of Indemnitee's Corporate Status within thirty (30) calendar days after the receipt by the Company of a statement or statements from Indemnitee requesting such advance or advances from time to time, whether prior to or after final disposition of such Proceeding. This statement or statements must reasonably evidence the Expenses incurred by Indemnitee and must include or be preceded or accompanied by an undertaking by or on behalf of Indemnitee to repay any Expenses advanced if it is ultimately determined that Indemnitee is not entitled to be indemnified against the Expenses. Any advances and undertakings to repay pursuant to this Section 5 will be unsecured and interest free. This Section 5 shall not apply to any claim made by Indemnitee for which indemnity is excluded pursuant to Section 9.

6 . Procedures and Presumptions for Determination of Entitlement to Indemnification. It is the intent of this Agreement to secure for Indemnitee rights of indemnity that are as favorable as may be permitted under the DGCL and public policy of the State of Delaware. Accordingly, the parties agree that the following procedures and presumptions shall apply in the event of any question as to whether Indemnitee is entitled to indemnification under this Agreement:

(a) To obtain indemnification under this Agreement, Indemnitee must submit to the Company a written request, including with that request sufficient documentation and information that is reasonably available to Indemnitee and is reasonably necessary to determine whether and to what extent Indemnitee is entitled to indemnification. The Secretary of the Company will, promptly upon receiving a request for indemnification from Indemnitee, advise the Board in writing that Indemnitee has requested indemnification. In any event, Indemnitee shall submit Indemnitee's claim for indemnification within a reasonable time, not to exceed five (5) years after any judgment, order, settlement, dismissal, arbitration award, conviction, acceptance of a plea of nolo contendere or its equivalent, or final determination, whichever is the later date for which Indemnitee requests indemnification.

(b) Upon written request by Indemnitee for indemnification pursuant to the first sentence of Section 6(a) hereof, a determination with respect to Indemnitee's entitlement to indemnification will be made in the specific case by one of the following four methods, which shall be at the election of the Board: (i) by a majority vote of the Disinterested Directors, even if less than a quorum, (ii) by a committee of Disinterested Directors designated by a majority vote of the Disinterested Directors, even though less than a quorum, (iii) if there are no Disinterested Directors or if the Disinterested Directors so direct, by Independent Counsel (as defined below) in a written opinion to the Board, a copy of which shall be delivered to Indemnitee, or (iv) there are no Disinterested Directors or if the Disinterested Directors so direct, by the stockholders of the Company. Notwithstanding the foregoing, if there has been a Change in Control (as defined below) of the Company, Independent Counsel shall determine whether Indemnitee is entitled to indemnification.

(c) If the determination of entitlement to indemnification is to be made by Independent Counsel pursuant to Section 6(b) hereof, the Independent Counsel must be selected by the Board as provided in Section 6(b) hereof and written notice of such selection must be provided promptly to the Indemnitee. Indemnitee may, within ten (10) calendar days after such written notice of selection is given, deliver to the Company a written objection to the selection; provided, however, that the objection may be asserted only on the ground that the Independent Counsel so selected does not meet the requirements of "Independent Counsel" as defined in Section 13 of this Agreement, and the objection must set forth with particularity the factual basis of this assertion. Absent a proper and timely objection, the person so selected shall act as Independent Counsel. If a written objection is made and substantiated, the Independent Counsel selected may not serve as Independent Counsel unless and until the objection is withdrawn or the Delaware Court or other court of competent jurisdiction has determined that the objection is without merit. If, within twenty (20) calendar days after submission by Indemnitee of a written request for indemnification pursuant to Section 6(a) hereof, no Independent Counsel has been selected and not objected to, either the Company or Indemnitee may petition the Delaware Court or other court of competent jurisdiction for resolution of any objection that will have been made by Indemnitee to the Company's selection of Independent Counsel and/or for the appointment as Independent Counsel of a person selected by such court or by such other person as such court designates, and the person with respect to whom all objections are so resolved or the person so appointed shall act as Independent Counsel under Section 6(b) hereof. The Company shall pay all reasonable fees and expenses of Independent Counsel incurred by the Independent Counsel in connection with acting pursuant to Section 6(b) hereof, and the Company must pay all reasonable fees and expenses incurred by the Company and Indemnitee incident to the procedures of this Section 6(c), regardless of the manner in which the Independent Counsel was selected or appointed.

(d) In making a determination with respect to entitlement to indemnification under this Agreement, the person or persons or entity making the determination must presume that Indemnitee is entitled to indemnification under this Agreement. Anyone seeking to overcome this presumption will have the burden of proof to overcome that presumption beyond a reasonable doubt. Neither the failure of the Company (including by its directors or independent legal counsel) to have made a determination prior to the commencement of any action pursuant to this Agreement that indemnification is proper in the circumstances because Indemnitee has met the applicable standard of conduct, nor an actual determination by the Company (including by its directors or independent legal counsel) that Indemnitee has not met such applicable standard of conduct, will be a defense to the action or create a presumption that Indemnitee has not met the applicable standard of conduct.

(e) Indemnitee will be deemed to have acted in good faith if Indemnitee's action is based on the records or books of account of the Enterprise (as defined below), including financial statements, or on information supplied to Indemnitee by the officers of the Enterprise in the course of their duties, or on the advice of legal counsel for the Enterprise or on information or records given or reports made to the Enterprise by an independent certified public accountant or by an appraiser or other expert selected with reasonable care by the Enterprise. The provisions of this Section 6(e) shall not be deemed to be exclusive or to limit in any way the other circumstances in which the Indemnitee may be deemed to have met the applicable standard of conduct set forth in this Agreement. In addition, the knowledge and/or actions, or failure to act, of any director, officer, agent, or employee of the Enterprise will not be imputed to Indemnitee for purposes of determining the right to indemnification under this Agreement. Whether or not the foregoing provisions of this Section 6(e) are satisfied, it will in any event be presumed Indemnitee has at all times acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company. Anyone seeking to overcome this presumption will have the burden of proof to overcome that presumption beyond a reasonable doubt.

(f) If the person, persons, or entity empowered or selected under Section 6 to determine whether Indemnitee is entitled to indemnification shall not have made a determination within sixty (60) calendar days after receipt by the Company of the request for indemnification, the requisite determination of entitlement to indemnification will be deemed to have been made and Indemnitee will be entitled to such indemnification absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statement not materially misleading, in connection with the request for indemnification, or (ii) a prohibition of such indemnification under applicable law; provided, however, that this 60-day period may be extended for a reasonable time, not to exceed an additional thirty (30) calendar days, if the person, persons or entity making the determination with respect to the entitlement to indemnification in good faith requires additional time to obtain or evaluate documentation and/or related information; and provided further that, the foregoing provisions of this Section 6(f) will not apply if the determination of entitlement to indemnification is to be made by the stockholders of the Company pursuant to Section 6(b) of this Agreement and if (A) within fifteen (15) calendar days after receipt by the Company of the request for such determination, the Board or the Disinterested Directors, if appropriate, resolve to submit the determination to the stockholders of the Company for their consideration at an annual meeting of the stockholders to be held within seventy-five (75) calendar days after such receipt and such determination is made at the meeting, or (B) a special meeting of stockholders is called within fifteen (15) calendar days after such receipt for the purpose of making this determination, such meeting is held for such purpose within sixty (60) calendar days after having been so called and such determination is made at the meeting.

(g) Indemnitee must cooperate with the person, persons or entity making the determination with respect to Indemnitee's entitlement to indemnification, including providing to that person, persons, or entity upon reasonable advance request any documentation or information which is not privileged or otherwise protected from disclosure and which is reasonably available to Indemnitee and reasonably necessary to making such determination. Any Independent Counsel, member of the Board or stockholder of the Company must act reasonably and in good faith in making such determination regarding Indemnitee's entitlement to indemnification under this Agreement. Any costs or Expenses incurred by Indemnitee in so cooperating with the person, persons or entity making such determination must be borne by the Company (irrespective of the determination as to Indemnitee's entitlement to indemnification) and the Company indemnifies and agrees to hold Indemnitee harmless from those costs and expenses.

(h) In the event that any Proceeding to which Indemnitee is a party is resolved in any manner other than by adverse judgment against Indemnitee (including, without limitation, settlement of such Proceeding with or without payment of money or other consideration) it must be presumed that Indemnitee has been successful on the merits or otherwise in that Proceeding. Anyone seeking to overcome this presumption will have the burden of proof to overcome that presumption beyond a reasonable doubt.

(i) The termination of any Proceeding or of any claim, issue, or matter therein, by judgment, order, settlement, or conviction, or upon a plea of nolo contendere or its equivalent, shall not (except as otherwise expressly provided in this Agreement) of itself adversely affect the right of Indemnitee to indemnification or create a presumption that Indemnitee did not act in good faith and in a manner which Indemnitee reasonably believed to be in or not opposed to the best interests of the Company or, with respect to any criminal Proceeding, that Indemnitee had reasonable cause to believe that Indemnitee's conduct was unlawful.

7. Remedies of Indemnitee.

(a) In the event that (i) a determination is made pursuant to Section 6 of this Agreement that Indemnitee is not entitled to indemnification under this Agreement, (ii) advancement of Expenses is not timely made pursuant to Section 5 of this Agreement, (iii) no determination of entitlement to indemnification is made pursuant to Section 6(b) of this Agreement within ninety (90) calendar days after receipt by the Company of the request for indemnification, (iv) payment of indemnification is not made pursuant to Sections 1(c), 1(d), 4 or the last sentence of Section 6(g) of this Agreement within ten (10) calendar days after receipt by the Company of a written request for indemnification or (v) payment of indemnification is not made within ten (10) calendar days after a determination has been made pursuant to Section 1(a), 1(b) or 2 of this Agreement that Indemnitee is entitled to indemnification or such determination is deemed to have been made pursuant to Section 6 of this Agreement, Indemnitee will be entitled to an adjudication in the Delaware Court or in any other court of competent jurisdiction, of Indemnitee's entitlement to indemnification. Indemnitee must commence such proceeding seeking an adjudication within one hundred eighty (180) calendar days following the date on which Indemnitee first has the right to commence such proceeding pursuant to this Section 7(a). The Company will not oppose Indemnitee's right to seek any such adjudication.

(b) In the event that a determination is made pursuant to Section 6(b) of this Agreement that Indemnitee is not entitled to indemnification, any judicial proceeding commenced pursuant to this Section 7 will be conducted in all respects as a de novo trial on the merits, and Indemnitee will not be prejudiced by reason of the adverse determination under Section 6(b).

(c) If a determination is made pursuant to Section 6(b) of this Agreement that Indemnitee is entitled to indemnification, the Company shall be bound by that determination in any judicial proceeding commenced pursuant to this Section 7, absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's misstatement not materially misleading, in connection with the application for indemnification, or (ii) a prohibition of indemnification under applicable law.

(d) In the event that Indemnitee, pursuant to this Section 7, seeks a judicial adjudication of Indemnitee's rights under, or to recover damages for breach of, this Agreement, or to recover under any directors' and officers' liability insurance policies maintained by the Company, the Company must pay on Indemnitee's behalf, in advance, all expenses (of the types described in the definition of Expenses in Section 13 of this Agreement) actually and reasonably incurred by Indemnitee in that judicial adjudication, regardless of whether Indemnitee ultimately is determined to be entitled to indemnification, advancement of expenses or insurance recovery; provided, however, that any and all such expenses shall be subject to billing guidelines and fee limits established by the Company and shall be applicable to all counsel.

(e) The Company will be precluded from asserting in any judicial proceeding commenced pursuant to this Section 7 that the procedures and presumptions of this Agreement are not valid, binding and enforceable and must stipulate in any such court that the Company is bound by all the provisions of this Agreement. The Company must indemnify Indemnitee against all Expenses and, if requested by Indemnitee, must (within ten (10) calendar days after receipt by the Company of a written request for indemnification) advance, to the extent not prohibited by law, those expenses to Indemnitee, which are incurred by Indemnitee in connection with any action brought by Indemnitee for indemnification or advance of Expenses from the Company under this Agreement or under any directors' and officers' liability insurance policies maintained by the Company, regardless of whether Indemnitee ultimately is determined to be entitled to indemnification, advancement of Expenses or insurance recovery.

(f) Notwithstanding anything in this Agreement to the contrary, no determination as to entitlement to indemnification under this Agreement will be required to be made prior to the final disposition of the Proceeding.

8. Non-Exclusivity; Survival of Rights; Insurance; Subrogation.

(a) The rights of indemnification as provided by this Agreement will not be deemed exclusive of any other rights to which Indemnitee may at any time be entitled under applicable law, the Certificate of Incorporation any agreement, a vote of stockholders of the Company, a resolution of Board or a committee thereof, or otherwise. No amendment, alteration, or repeal of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee in Indemnitee's Corporate Status prior to that amendment, alteration, or repeal. To the extent that a change in the DGCL, whether by statute or judicial decision, permits greater indemnification than would be afforded currently under the Certificate of Incorporation or this Agreement, it is the intent of the parties hereto that Indemnitee will enjoy by this Agreement the greater benefits so afforded by that change. No right or remedy conferred under this Agreement is intended to be exclusive of any other right or remedy, and every other right and remedy will be cumulative and in addition to every other right and remedy given under this Agreement or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy under this Agreement, or otherwise, will not prevent the concurrent assertion or employment of any other right or remedy.

(b) The Company must maintain an insurance policy or policies providing liability insurance for directors, officers, employees, agents or fiduciaries of the Company or of any other corporation, partnership, joint venture, trust, employee benefit plan, or other enterprise that such person serves at the request of the Company. Indemnitee must be covered by this policy or policies in accordance with its or their terms to the maximum extent of the coverage available for any director, officer, employee, agent, or fiduciary under the policy or policies. If, at the time of the receipt of a notice of a claim pursuant to the terms of this Agreement, the Company must give prompt notice of the commencement of these proceedings to the insurers in accordance with the procedures set forth in the respective policies. The Company must also take all necessary or desirable action to cause the insurers to pay, on behalf of Indemnitee, all amounts payable as a result of such proceeding in accordance with the terms of such policy or policies.

(c) In the event of any payment under this Agreement, the Company will be subrogated to the extent of that payment to all of the rights of recovery of Indemnitee, who will execute all papers required and take all action necessary to secure such rights, including execution of any documents as are necessary to enable the Company to bring suit to enforce these rights.

(d) The Company will not be liable under this Agreement to make any payment of amounts otherwise indemnifiable under this Agreement if and to the extent that Indemnitee has otherwise actually received that payment under any insurance policy, contract, agreement or otherwise.

(e) The Company's obligation to indemnify or advance Expenses under this Agreement to Indemnitee who is or was serving at the request of the Company as a director, officer, employee, or agent of any other corporation, partnership, joint venture, trust, employee benefit plan or other enterprise will be reduced by any amount Indemnitee has actually received as indemnification or advancement of expenses from that other corporation, partnership, joint venture, trust, employee benefit plan, or other enterprise.

9 . Exception to Right of Indemnification. Notwithstanding any provision in this Agreement, the Company will not be obligated under this Agreement to make any indemnity in connection with any claim made against Indemnitee:

(a) for which payment has actually been made to or on behalf of Indemnitee under any insurance policy or other indemnity provision, except with respect to any excess beyond the amount paid under any insurance policy or other indemnity provision;

(b) for (i) an accounting of profits made from the purchase and sale (or sale and purchase) by Indemnitee of securities of the Company within the meaning of Section 16(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or similar provisions of state statutory law or common law; (ii) any reimbursement of the Company by the Indemnitee of any bonus or other incentive-based or equity-based compensation or of any profits realized by the Indemnitee from the sale of securities of the Company, as required in each case under the Exchange Act (including, without limitation, any such reimbursements that arise from an accounting restatement of the Company pursuant to Section 304 of the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act"), or the payment to the Company of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 306 of the Sarbanes-Oxley Act) or (iii) any reimbursement of the Company by Indemnitee of any compensation pursuant to any compensation recoupment or clawback policy adopted by the Board or the Compensation Committee of the Board, including but not limited to any such policy adopted to comply with stock exchange listing requirements implementing Section 10D of the Exchange Act; or

(c) except as provided in Section 7(e) of this Agreement, in connection with any Proceeding (or any part of any Proceeding) initiated by Indemnitee, including any Proceeding (or any part of any Proceeding) initiated by Indemnitee against the Company or its directors, officers, employees, or other indemnitees, unless (i) the Board authorized the Proceeding (or any part of any Proceeding) prior to its initiation, (ii) such payment arises in connection with any mandatory counterclaim or cross claim brought or raised by Indemnitee in any Proceeding (or any part of a Proceeding), or (iii) the Company provides the indemnification, in its sole discretion, pursuant to the powers vested in the Company under applicable law; or

(d) for Expenses determined by the Company to have arisen out of Indemnitee's breach or violation of his or her obligations under (i) any employment agreement between the Indemnitee and the Company or (ii) the Company's Code of Conduct and Ethics (as amended from time to time).

10. Duration of Agreement. All agreements and obligations of the Company contained in this Agreement will continue during the period Indemnitee is an officer or director of the Company (or is serving at the request of the Company as a director, officer, employee, or agent of another corporation, partnership, joint venture, trust, employee benefit plan, or other enterprise) and for 15 years after such term of service, and will continue so long as Indemnitee is subject to any Proceeding (or any proceeding commenced under Section 7 hereof) by reason of Indemnitee's Corporate Status, whether or not Indemnitee is acting or serving in any such capacity at the time any liability or expense is incurred for which indemnification can be provided under this Agreement. This Agreement will be binding upon and inure to the benefit of and be enforceable by the parties hereto and their respective successors (including any direct or indirect successor by purchase, merger, consolidation or otherwise to all or substantially all of the business or assets of the Company), assigns, spouses, heirs, executors, and personal and legal representatives.

11. Security. To the extent requested by Indemnitee and approved by the Board, the Company may at any time and from time to time provide security to Indemnitee for the Company's obligations under this Agreement through an irrevocable bank line of credit, funded trust or other collateral. Any such security, once provided to Indemnitee, may not be revoked or released without the prior written consent of Indemnitee.

12. Enforcement.

(a) The Company expressly confirms and agrees that it has entered into this Agreement and assumes the obligations imposed on it hereby in order to induce Indemnitee to serve as an officer or director of the Company, and the Company acknowledges that Indemnitee is relying upon this Agreement in serving as an officer or director of the Company.

(b) This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter of this Agreement and supersedes all prior agreements and understandings, oral, written and implied, between the parties hereto with respect to the subject matter of this Agreement.

13. Definitions. For purposes of this Agreement:

(a) "Beneficial Owner" has the meaning given to such term in Rule 13d-3 under the Exchange Act; provided, however, that Beneficial Owner shall exclude any Person otherwise becoming a Beneficial Owner by reason of the stockholders of the Company approving a merger of the Company with another entity.

(b) A "Change in Control" shall be deemed to occur upon the earliest to occur after the date of this Agreement of any of the following events:

(i) Acquisition of Stock by Third Party. Any Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company representing fifteen percent (20%) or more of the combined voting power of the Company's then outstanding securities unless the change in relative Beneficial Ownership of the Company's securities by any Person results solely from a reduction in the aggregate number of outstanding shares of securities entitled to vote generally in the election of directors;

(ii) Change in Board. During any period of two (2) consecutive years (not including any period prior to the execution of this Agreement), individuals who at the beginning of such period constitute the Board, and any new director whose election by the Board or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute at least a majority of the members of the Board;

(iii) Corporate Transactions. The effective date of a merger or consolidation of the Company with any other entity, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty-one percent (51%) of the combined voting power of the voting securities of the surviving entity outstanding immediately after such merger or consolidation and with the power to elect at least a majority of the Board or other governing body of such surviving entity;

(iv) Liquidation. The approval by the stockholders of the Company of a complete liquidation of the Company or an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets; and

(v) Other Events. There occurs any other event of a nature that would be required to be reported in response to Item 6(e) of Schedule 14A of Regulation 14A (or a response to any similar item on any similar schedule or form) promulgated under the Exchange Act, whether or not the Company is then subject to such reporting requirement.

(c) "Corporate Status" describes the status of a person who is or was a director, officer, employee, agent, or fiduciary of the Company or of any other corporation, partnership, joint venture, trust, employee benefit plan, or other enterprise that such person is or was serving at the express written request of the Company.

(d) "Disinterested Director" means a director of the Company who is not and was not a party to the Proceeding in respect of which indemnification is sought by Indemnitee.

(e) "Enterprise" means the Company and any other corporation, partnership, joint venture, trust, employee benefit plan, or other enterprise that Indemnitee is or was serving at the express written request of the Company as a director, officer, employee, agent, or fiduciary.

(f) "Expenses" include all reasonable attorneys' fees, retainers, court costs, transcript costs, fees of experts, witness fees, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees, ERISA excise taxes and penalties, and all other disbursements or expenses of the types customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, participating, or being or preparing to be a witness in a Proceeding, or responding to, or objecting to, a request to provide discovery in any Proceeding. Expenses also shall include (i) Expenses incurred in connection with any appeal resulting from any Proceeding, including, without limitation, the premium, security for, and other costs relating to any cost bond, supersede as bond, or other appeal bond or its equivalent (ii) Expenses incurred in connection with recovery under any directors' and officers' liability insurance policies maintained by the Company, regardless of whether Indemnitee is ultimately determined to be entitled to such indemnification, advancement or Expenses or insurance recovery, as the case may be, and (iii) for purposes of Section 7(e) only, Expenses incurred by Indemnitee in connection with the interpretation, enforcement or defense of Indemnitee's rights under this Agreement, the Certificate of Incorporation or under any directors' and officers' liability insurance policies maintained by the Company, by litigation or otherwise. Expenses, however, shall not include amounts paid in settlement by Indemnitee or the amount of judgments or fines against Indemnitee.

(g) "Independent Counsel" means a law firm, or a member of a law firm, that is experienced in matters of corporation law and neither presently is, nor in the past five (5) years has been, retained to represent: (i) the Company or Indemnitee in any matter material to either such party (other than with respect to matters concerning Indemnitee under this Agreement, or of other indemnitees under similar indemnification agreements), or (ii) any other party to the Proceeding giving rise to a claim for indemnification under this Agreement. Notwithstanding the foregoing, the term "Independent Counsel" will not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Company or Indemnitee in an action to determine Indemnitee's rights under this Agreement. The Company agrees to pay the reasonable fees of the Independent Counsel referred to above and to fully indemnify such counsel against any and all Expenses, claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant to this Agreement.

(h) "Person" has the meaning stated in Sections 13(d) and 14(d) of the Exchange Act; provided, however, that Person shall exclude (i) the Company, (ii) any trustee or other fiduciary holding securities under an employee benefit plan of the Company and (iii) any corporation owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company.

(i) "Proceeding" includes any threatened, pending, or completed action, suit, claim, counterclaim, cross claim, arbitration, mediation, alternate dispute resolution mechanism, investigation, inquiry, administrative hearing, or any other actual, threatened, or completed proceeding, whether brought by or in the right of the Company or otherwise and whether civil, criminal, administrative, or investigative, including any appeal therefrom, in which Indemnitee was, is or will be involved as a party or otherwise, by reason of Indemnitee's Corporate Status, by reason of any action taken by Indemnitee or of any inaction on Indemnitee's part while acting in Indemnitee's Corporate Status; in each case whether or not Indemnitee is acting or serving in any such capacity at the time any liability or expense is incurred for which indemnification, reimbursement or advancement of expenses can be provided under this Agreement; including one pending on or before the date of this Agreement, but excluding one initiated by an Indemnitee pursuant to Section 7 of this Agreement to enforce Indemnitee's rights under this Agreement.

14. Severability. The invalidity or unenforceability of any provision of this Agreement shall in no way affect the validity or enforceability of any other provision. Without limiting the generality of the foregoing, this Agreement is intended to confer upon Indemnitee indemnification rights to the fullest extent permitted by applicable law. In the event any provision of this Agreement conflicts with any applicable law, that provision will be deemed modified, consistent with the aforementioned intent, to the extent necessary to resolve such conflict.

15. Modification and Waiver. No supplement, modification, termination, or amendment of this Agreement shall be binding unless executed in writing by both of the parties to this Agreement. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions of this Agreement (whether or not similar) nor shall such waiver constitute a continuing waiver.

16. Notice by Indemnitee. Indemnitee agrees promptly to notify the Company in writing upon being served with or otherwise receiving any summons, citation, subpoena, complaint, indictment, information, or other document relating to any Proceeding or matter that may result in the right to indemnification or the advancement of Expenses covered under this Agreement. The failure to so notify the Company will not relieve the Company of any obligation that it may have to Indemnitee under this Agreement or otherwise unless and only to the extent that such failure or delay materially prejudices the Company. With respect to any Proceeding as to which Indemnitee notifies the Company of the commencement thereof:

(a) The Company will be entitled to participate therein at its own expense; and

(b) The Company jointly with any other indemnifying party similarly notified will be entitled to assume the defense thereof, with counsel reasonably satisfactory to Indemnitee; provided, however, that the Company shall not be entitled to assume the defense of any Proceeding if there has been a Change in Control or if Indemnitee shall have reasonably concluded that there may be a conflict of interest between the Company and Indemnitee with respect to such Proceeding. After notice from the Company to Indemnitee of its election to assume the defense thereof, the Company will not be liable to Indemnitee under this Agreement for any Expenses subsequently incurred by Indemnitee in connection with the defense thereof, other than reasonable costs of investigation or as otherwise provided below. Indemnitee shall have the right to employ Indemnitee's own counsel in such Proceeding, but the fees and expenses of such counsel incurred after notice from the Company of its assumption of the defense thereof shall be at the expense of Indemnitee unless:

(i) the employment of counsel by Indemnitee has been authorized by the Company;

(ii) Indemnitee shall have reasonably concluded that counsel engaged by the Company may not adequately represent Indemnitee due to, among other things, actual or potential differing interests; or

(iii) the Company shall not in fact have employed counsel to assume the defense in such Proceeding or shall not in fact have assumed such defense and be acting in connection therewith with reasonable diligence; in each of which cases the fees and expenses of such counsel shall be at the expense of the Company.

(c) The Company shall not settle any Proceeding in any manner that would impose any penalty or limitation on Indemnitee without Indemnitee's written consent; provided, however, that Indemnitee will not unreasonably withhold his or her consent to any proposed settlement.

17. Notices. All notices and other communications given or made pursuant to this Agreement must be in writing and shall be deemed effectively given: (i) upon personal delivery to the party to be notified, (ii) when sent by confirmed electronic mail if sent during normal business hours of the recipient, and if not so confirmed, then on the next business day, (iii) five (5) calendar days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (iv) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent:

(a) To Indemnitee, at the address set forth below Indemnitee's signature to this Agreement.

(b) To the Company at:

Perspective Therapeutics, Inc.
2401 Elliott Avenue, Suite 320
Seattle, WA 98121
Attention: Secretary
Email: austinmj@perspectivetherapeutics.com

or to such other address as may have been furnished to Indemnitee by the Company or to the Company by Indemnitee, as the case may be.

18. Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together constitute one and the same Agreement. Counterparts may be delivered via electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

19. Headings. The headings of the paragraphs of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction thereof.

20. Governing Law and Consent to Jurisdiction. This Agreement and the legal relations among the parties shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware, without regard to its conflict of laws rules. The Company and Indemnitee hereby irrevocably and unconditionally (i) agree that any action or proceeding arising out of or in connection with this Agreement shall be brought only in the Delaware Court and not in any other state or federal court in the United States of America or any court in any other country, (ii) consent to submit to the exclusive jurisdiction of the Delaware Court for purposes of any action or proceeding arising out of or in connection with this Agreement, (iii) irrevocably appoint, to the extent such party is not otherwise subject to service of process in the State of Delaware, Corporation Service Company at 251 Little Falls Drive, Wilmington, Delaware 19808, as its agent in the State of Delaware as such party's agent for acceptance of legal process in connection with any such action or proceeding against such party with the same legal force and validity as if served upon such party personally within the State of Delaware, (iv) waive any objection to the laying of venue of any such action or proceeding in the Delaware Court, and (v) waive, and agree not to plead or to make, any claim that any such action or proceeding brought in the Delaware Court has been brought in an improper or inconvenient forum.

21. All prior Indemnification Agreements, if any, between the Company and Indemnitee are hereby terminated and replaced by this Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties have executed this Agreement on and as of the day and year first above written.

COMPANY

By: _____
Name: _____
Title: _____

INDEMNITEE

_____
Name: _____

Address:

_____
_____
_____

Exhibit 10.26

REGISTRATION RIGHTS AGREEMENT

This **Registration Rights Agreement** (this "Agreement") is made and entered into as of January 22, 2024, between **Perspective Therapeutics, Inc.**, a Delaware corporation (the "Company"), and **Lantheus Alpha Therapy, LLC**, a Delaware limited liability company (the " Investor").

RECITALS

This Agreement is made pursuant to the Investment Agreement, dated as of January 8, 2024, between the Company and the Investor (as amended, amended and restated or otherwise modified from time to time, the "Investment Agreement"), pursuant to which the Company is selling to the Investor, and the Investor is purchasing from the Company, in each case on the Closing Date (as defined in the Investment Agreement), an aggregate of 56,342,355 shares (the "Shares") of common stock, $0.001 par value of the Company (the " Common Stock").

AGREEMENT

The Company and the Investor hereby agree as follows:

Section 1. Definitions. Capitalized terms used and not otherwise defined herein that are defined in the Investment Agreement shall have the meanings given such terms in the Investment Agreement. As used in this Agreement, the following terms shall have the following meanings:

"Advice" has the meaning set forth in Section 6(c).

"Effectiveness Date" means, with respect to the Initial Registration Statement required to be filed hereunder, the 30th calendar day following the Filing Date (or, in the event of a "full review" by the Commission, the 90th calendar day following the Filing Date) and with respect to any additional Registration Statements which may be required pursuant to Section 2(c) or Section 3(c), the 30th calendar day following the date on which an additional Registration Statement is required to be filed hereunder (or, in the event of a "full review" by the Commission, the 90th calendar day following the date such additional Registration Statement is required to be filed hereunder); provided, however, that in the event the Company is notified by the Commission that one or more of the above Registration Statements will not be reviewed or is no longer subject to further review and comments, the Effectiveness Date as to such Registration Statement shall be the fifth Trading Day following the date on which the Company is so notified if such date precedes the dates otherwise required above, provided, further, if such Effectiveness Date falls on a day that is not a Trading Day, then the Effectiveness Date shall be the next succeeding Trading Day.

"Effectiveness Period" has the meaning set forth in Section 2(a).

"Event" has the meaning set forth in Section 2(d).

"Event Date" has the meaning set forth in Section 2(d).

"Filing Date" means (a) with respect to the Initial Registration Statement required hereunder, the date that is no later than the 60th calendar day following the Closing Date, and (b) with respect to any additional Registration Statements which may be required pursuant to Section 2(c) or Section 3(c), the earliest practical date on which the Company is permitted by SEC Guidance to file such additional Registration Statement related to the Registrable Securities.

"Holder" or "Holders" means the holder or holders, as the case may be, from time to time of Registrable Securities.

"Indemnified Party" has the meaning set forth in Section 5(c).

"Indemnifying Party" has the meaning set forth in Section 5(c).

"Initial Registration Statement" means the initial Registration Statement filed to register the resale of the Registrable Securities as would permit the sale and distribution of such Registrable Securities from time to time in the manner reasonably requested by a Holder as provided in and pursuant to this Agreement.

"Losses" has the meaning set forth in Section 5(a).

"Person" means an individual, corporation, partnership, limited liability company, trust, business trust, association, joint stock company, joint venture, sole proprietorship, unincorporated organization, governmental authority or any other form of entity not specifically listed herein.

"Plan of Distribution" has the meaning set forth in Section 2(a).

"Prospectus" means the prospectus included in a Registration Statement (including, without limitation, a prospectus that includes any information previously omitted from a prospectus filed as part of an effective registration statement in reliance upon Rule 430A promulgated by the Commission pursuant to the Securities Act), as amended or supplemented by any prospectus supplement, with respect to the terms of the offering of any portion of the Registrable Securities covered by a Registration Statement, and all other amendments and supplements to the Prospectus, including post-effective amendments, and all material incorporated by reference or deemed to be incorporated by reference in such Prospectus.

"Registrable Securities" means, as of any date of determination, (a) Shares issued to the Investor pursuant to the Investment Agreement at the Closing Date, and (b) any other securities issued or then issuable upon any stock split, dividend or other distribution, recapitalization, merger, exchange, replacement or similar event with respect to the foregoing; provided, however, that any such Registrable Securities shall cease to be Registrable Securities (and the Company shall not be required to maintain the effectiveness of any, or file another, Registration Statement hereunder with respect thereto) for so long as (x) a Registration Statement with respect to the sale of such Registrable Securities is declared effective by the Commission under the Securities Act and such Registrable Securities have been disposed of by the Holder in accordance with such effective Registration Statement, (y) such Registrable Securities have been previously sold in accordance with Rule 144, or (z) such securities become eligible for resale without volume or manner-of-sale restrictions and without the requirement for the Company to be in compliance with the current public information requirement pursuant to Rule 144 as set forth in a written opinion letter to such effect, addressed, delivered and acceptable to the Transfer Agent and the affected Holders (assuming that such securities and any securities issuable upon exercise, conversion or exchange of which, or as a dividend upon which, such securities were issued or are issuable, were at no time held by any Affiliate of the Company), as reasonably determined by the Company, upon the advice of counsel to the Company.

"Registration Statement" means any registration statement required to be filed hereunder pursuant to Section 2(a) and any additional registration statements contemplated by Section 2(c) or Section 3(c), including (in each case) the Prospectus, amendments and supplements to any such registration statement or Prospectus, including pre- and post-effective amendments, all exhibits thereto, and all material incorporated by reference or deemed to be incorporated by reference in any such registration statement.

"Rule 415" means Rule 415 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

"Rule 424" means Rule 424 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

"Selling Stockholder Questionnaire" has the meaning set forth in Section 3(a).

"SEC Guidance" means (i) any publicly available written or oral guidance of the Commission staff, or any comments, requirements or requests of the Commission staff and (ii) the Securities Act.

"Trading Day" means any day on which the Trading Market is open for trading.

"Trading Market" means the principal national securities exchange on which Registrable Securities are listed.

Section 2. Demand Registration.

(a) On or prior to each Filing Date, the Company shall prepare and file with the Commission a Registration Statement covering the resale of all of the Registrable Securities that are not then registered on an effective Registration Statement for an offering to be made on a continuous basis pursuant to Rule 415. Each Registration Statement filed hereunder shall be on Form S-3 (except if the Company is not then eligible to register for resale the Registrable Securities on Form S-3, subject to the provisions of Section 2(e)) and shall contain (unless otherwise directed by at least 50% in interest of the Holders or to make any disclosure contained therein not misleading) substantially the "Plan of Distribution" attached hereto as Annex A and substantially the "Selling Stockholder" section attached hereto as Annex B. Subject to the terms of this Agreement, the Company shall use its reasonable best efforts to cause a Registration Statement filed under this Agreement (including, without limitation, under Section 3(c)) to be declared effective under the Securities Act as promptly as possible after the filing thereof, but in any event no later than the applicable Effectiveness Date, and shall use its reasonable best efforts to keep such Registration Statement continuously effective under the Securities Act until the date that all Registrable Securities covered by such Registration Statement (i) have been sold, thereunder or pursuant to Rule 144, or (ii) may be sold without volume or manner-of-sale restrictions pursuant to Rule 144 and without the requirement for the Company to be in compliance with the current public information requirement under Rule 144, as determined by the counsel to the Company pursuant to a written opinion letter to such effect, addressed and acceptable to the Transfer Agent and the affected Holders (the "Effectiveness Period"). The Company shall notify the Holders via e-mail of the effectiveness of a Registration Statement on the same Trading Day that the Company telephonically confirms effectiveness with the Commission, which shall be the date requested for effectiveness of such Registration Statement. The Company shall, by 9:30 a.m. (New York City time) on the Trading Day after the effective date of such Registration Statement, file a final Prospectus to be used in connection with the sale or other disposition of the securities covered thereby, and shall, if requested, provide the Holders with copies of such final Prospectus.

(b) Notwithstanding the registration obligations set forth in Section 2(a), if the Commission informs the Company that all of the Registrable Securities cannot, as a result of the application of Rule 415, be registered for resale as a secondary offering on a single registration statement, the Company agrees to promptly inform each of the Holders thereof and use its reasonable best efforts to file an amendment or amendments to the Initial Registration Statement as required by the Commission, covering the maximum number of Registrable Securities permitted to be registered by the Commission, on Form S-3 or such other form available to register for resale the Registrable Securities as a secondary offering, subject to the provisions of Section 2(e); and subject to the provisions of Section 2(d) with respect to payment of liquidated damages with respect to filing on Form S-3 or other appropriate form; provided, however, that prior to filing such amendment, the Company shall be obligated to use diligent efforts to advocate with the Commission for the registration of all of the Registrable Securities in accordance with the SEC Guidance, including without limitation, Securities Act Rules Compliance and Disclosure Interpretation 612.09.

(c) Notwithstanding any other provision of this Agreement and subject to the payment of liquidated damages pursuant to Section 2(d), if the Commission or any SEC Guidance sets forth a limitation on the number of Registrable Securities permitted to be registered on a particular Registration Statement as a secondary offering (and notwithstanding that the Company used diligent efforts to advocate with the Commission to maximize the number of Registrable Securities to be registered), unless otherwise directed in writing by a Holder as to its Registrable Securities, the number of Registrable Securities to be registered on such Registration Statement will be reduced as follows:

(i) First, the Company shall reduce or eliminate any securities to be included other than Registrable Securities; and

(ii) Second, the Company shall reduce Registrable Securities represented by Shares (applied, in the case that some Shares may be registered, to the Holders on a *pro rata* basis based on the total number of unregistered Shares held by such Holders).

In the event of a reduction hereunder, the Company shall give the Holder at least five (5) Trading Days' prior written notice along with the calculations as to such Holder's allotment. In the event the Company amends the Initial Registration Statement in accordance with the foregoing, then the Company shall use its reasonable best efforts to file with the Commission, as promptly thereafter as allowed by Commission or SEC Guidance provided to the Company or to registrants of securities in general, one or more registration statements on Form S-3 or such other form available to register for resale those Registrable Securities that were not registered for resale on the Initial Registration Statement, as amended.

(d) If: (i) the Initial Registration Statement is not filed on or prior to its Filing Date (if the Company files the Initial Registration Statement without affording the Investor the opportunity to review and comment on the same as required by Section 3(a) herein, the Company shall be deemed to have not satisfied this clause as of the Filing Date), (ii) the Company fails to file with the Commission a request for acceleration of a Registration Statement in accordance with Rule 461 promulgated by the Commission pursuant to the Securities Act within five (5) Trading Days of the date that the Company is notified (orally or in writing, whichever is earlier) by the Commission that such Registration Statement will not be "reviewed" or will not be subject to further review, (iii) a Registration Statement registering for resale all of the Registrable Securities is not declared effective by the Commission by the Effectiveness Date of the Initial Registration Statement or (iv) after the effective date of a Registration Statement, such Registration Statement ceases for any reason to remain continuously effective as to all Registrable Securities included in such Registration Statement, or the Holders are otherwise not permitted to utilize the Prospectus therein to resell such Registrable Securities, for more than fifteen (15) consecutive calendar days or more than an aggregate of twenty (20) calendar days (which need not be consecutive calendar days) during any 12-month period (any such failure or breach being referred to as an "Event", and for purposes of clauses (i) and (iii), the date on which such Event occurs, and for purpose of clause (ii) the date on which such five (5) Trading Day period is exceeded, and for purpose of clause (iv) the date on which such fifteen (15) or twenty (20) calendar day period, as applicable, is exceeded being referred to as "Event Date"), then, in addition to any other rights the Holders may have hereunder or under applicable law, on each such Event Date and on each monthly anniversary of each such Event Date (if the applicable Event shall not have been cured by such date) until the applicable Event is cured, the Company shall pay to each Holder an amount in cash, as partial liquidated damages and not as a penalty, equal to the product of 1.0% multiplied by the aggregate Share Purchase Price paid by such Holder pursuant to the Investment Agreement for any Registrable Securities held by such Holder on the Event Date. The parties agree that the maximum aggregate liquidated damages payable to a Holder under this Agreement shall be 10.0% of the aggregate Share Purchase Price paid by such Holder pursuant to the Investment Agreement. If the Company fails to pay any partial liquidated damages pursuant to this Section in full within seven (7) Trading Days after the date payable, the Company will pay interest thereon at a rate of 10.0% per annum (or such lesser maximum amount that is permitted to be paid by applicable law) to the Holder, accruing daily from the date such partial liquidated damages are due until such amounts, plus all such interest thereon, are paid in full. The partial liquidated damages pursuant to the terms hereof shall apply on a daily pro rata basis for any portion of a month prior to the cure of an Event.

(e) If Form S-3 is not available for the registration of the resale of Registrable Securities hereunder, the Company shall (i) register the resale of the Registrable Securities on another appropriate form and (ii) undertake to register the Registrable Securities on Form S-3 as soon as such form is available, provided that the Company shall maintain the effectiveness of the Registration Statement then in effect until such time as a Registration Statement on Form S-3 covering the Registrable Securities has been declared effective by the Commission.

(f) Notwithstanding anything to the contrary contained in this Agreement, in no event shall the Company be permitted to name any Holder or affiliate of a Holder as any underwriter without the prior written consent of such Holder.

Section 3. Registration Procedures.

In connection with the Company's registration obligations hereunder, the Company shall:

(a) Not less than five (5) Trading Days prior to the filing of each Registration Statement and not less than one (1) Trading Day prior to the filing of any related Prospectus or any amendment or supplement thereto (including any document that would be incorporated or deemed to be incorporated therein by reference), the Company shall (i) furnish to the Investor copies of all such documents proposed to be filed, which documents (other than those incorporated or deemed to be incorporated by reference) will be subject to the review of the Investor, and (ii) cause its officers and directors, counsel and independent registered public accountants to respond to such inquiries of the Investor as shall be necessary, in the reasonable opinion of counsel to the Investor, to conduct a reasonable investigation within the meaning of the Securities Act. The Company shall not file a Registration Statement or any such Prospectus or any amendments or supplements thereto to which the Investor shall reasonably object in writing in good faith, provided that, the Company is notified of such objection in writing no later than five (5) Trading Days after the Investor has been so furnished copies of a Registration Statement or one (1) Trading Day after the Holders have been so furnished copies of any related Prospectus or amendments or supplements thereto. Each Holder agrees to furnish to the Company a completed questionnaire in the form attached to this Agreement as Annex C (a "Selling Stockholder Questionnaire") on a date that is the earlier of two (2) Trading Days prior to the Filing Date or by the end of the fourth (4th) Trading Day following the date on which such Holder receives draft materials in accordance with this Section.

(b) (i) Prepare and file with the Commission such amendments, including post-effective amendments, to a Registration Statement and the Prospectus used in connection therewith as may be necessary to keep a Registration Statement continuously effective as to the applicable Registrable Securities for the Effectiveness Period and prepare and file with the Commission such additional Registration Statements in order to register for resale under the Securities Act all of the Registrable Securities, (ii) cause the related Prospectus to be amended or supplemented by any required Prospectus supplement (subject to the terms of this Agreement), and, as so supplemented or amended, to be filed pursuant to Rule 424, (iii) respond as promptly as reasonably possible to any comments received from the Commission with respect to a Registration Statement or any amendment thereto and provide as promptly as reasonably possible to the Investor true and complete copies of all correspondence from and to the Commission relating to a Registration Statement (provided that, the Company shall excise any information contained therein which would constitute material non-public information regarding the Company or any of its Subsidiaries), and (iv) comply in all material respects with the applicable provisions of the Securities Act and the Exchange Act with respect to the disposition of all Registrable Securities covered by a Registration Statement during the applicable period in accordance (subject to the terms of this Agreement) with the intended methods of disposition by the Holders thereof set forth in such Registration Statement as so amended or in such Prospectus as so supplemented.

(c) If during the Effectiveness Period, the number of Registrable Securities at any time exceeds 100% of the number of shares of Common Stock then registered in a Registration Statement, then the Company shall file as soon as reasonably practicable, but in any case prior to the applicable Filing Date, an additional Registration Statement covering the resale by the Holders of not less than the number of such Registrable Securities.

(d) Notify the Holders of Registrable Securities to be sold (which notice shall, pursuant to clauses (iii) through (vii) hereof, be accompanied by an instruction to suspend the use of the Prospectus until the requisite changes have been made) as promptly as reasonably possible (and, in the case of (i)(A) below, not less than one (1) Trading Day prior to such filing) and (if requested by any such Holder) confirm such notice in writing no later than one (1) Trading Day following the day (i)(A) when a Prospectus or any Prospectus supplement or post-effective amendment to a Registration Statement is proposed to be filed, (B) when the Commission notifies the Company whether there will be a "review" of such Registration Statement and whenever the Commission comments in writing on such Registration Statement, and (C) with respect to a Registration Statement or any post-effective amendment, when the same has become effective, (ii) of any request by the Commission or any other federal or state governmental authority for amendments or supplements to a Registration Statement or Prospectus or for additional information, (iii) of the issuance by the Commission or any other federal or state governmental authority of any stop order suspending the effectiveness of a Registration Statement covering any or all of the Registrable Securities or the initiation of any Proceedings for that purpose, (iv) of the receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Registrable Securities for sale in any jurisdiction, or the initiation or threatening of any Proceeding for such purpose, (v) of the occurrence of any event or passage of time that makes the financial statements included in a Registration Statement ineligible for inclusion therein, (vi) of the occurrence of any event or passage of time that makes any statement made in a Registration Statement or Prospectus or any document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires any revisions to a Registration Statement, Prospectus or other documents so that, in the case of a Registration Statement or the Prospectus, as the case may be, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, and (vii) of the occurrence or existence of any pending corporate development or negotiation or consummation of a transaction with respect to the Company that the Company believes may be material and that, in the determination of the Company, makes it not in the best interest of the Company to allow continued availability of a Registration Statement or Prospectus; provided, however, that in no event shall any such notice contain any information which would constitute material, non-public information regarding the Company or any of its Subsidiaries and the Company agrees that the Holders shall not have any duty of confidentiality to the Company or any of its Subsidiaries with respect to the information contained in such notice and shall not have any duty to the Company or any of its Subsidiaries not to trade on the basis of such information, provided that the Holders shall remain subject to applicable law.

(e) Use its reasonable best efforts to avoid the issuance of, or, if issued, obtain the withdrawal of (i) any order stopping or suspending the effectiveness of a Registration Statement, or (ii) any suspension of the qualification (or exemption from qualification) of any of the Registrable Securities for sale in any jurisdiction, at the earliest practicable moment.

(f) Furnish to each Holder whose Registrable Securities are included in any Registration Statement, if requested by such Holder, without charge, at least one conformed copy of each such Registration Statement and each amendment thereto, including financial statements and schedules, all documents incorporated or deemed to be incorporated therein by reference to the extent requested by such Holder, and all exhibits to the extent requested by such Holder (including those previously furnished or incorporated by reference) promptly after the filing of such documents with the Commission, provided that any such item which is available on the EDGAR system (or successor thereto) need not be furnished in physical form.

(g) Subject to the terms of this Agreement, the Company hereby consents to the use of such Prospectus and each amendment or supplement thereto by each of the selling Holders in connection with the offering and sale of the Registrable Securities covered by such Prospectus and any amendment or supplement thereto, except after the giving of any notice pursuant to Section 3(d).

(h) Cooperate with any broker-dealer through which a Holder proposes to resell its Registrable Securities in effecting a filing with the FINRA Corporate Financing Department pursuant to FINRA Rule 5110, as requested by any such Holder.

(i) Prior to any resale of Registrable Securities by a Holder, use its reasonable best efforts to register or qualify or cooperate with the selling Holders in connection with the registration or qualification (or exemption from the registration or qualification) of such Registrable Securities for the resale by the Holder under the securities or Blue Sky laws of such jurisdictions within the United States as any Holder reasonably requests in writing, to keep each registration or qualification (or exemption therefrom) effective during the Effectiveness Period and to do any and all other acts or things reasonably necessary to enable the disposition in such jurisdictions of the Registrable Securities covered by each Registration Statement, provided that the Company shall not be required to qualify generally to do business in any jurisdiction where it is not then so qualified, subject the Company to any material tax in any such jurisdiction where it is not then so subject or file a general consent to service of process in any such jurisdiction.

(j) If requested by a Holder, cooperate with such Holder to facilitate the timely preparation and delivery of certificates (or evidence of book entry transfer) representing Registrable Securities to be delivered to a transferee pursuant to a Registration Statement, which certificates (or evidence of book entry transfer) shall be free, to the extent permitted by the Investment Agreement, of all restrictive legends, and to enable such Registrable Securities to be in such denominations and registered in such names as any such Holder may request.

(k) Upon the occurrence of any event contemplated by Section 3(d), as promptly as reasonably possible under the circumstances taking into account the Company's good faith assessment of any adverse consequences to the Company and its stockholders of the premature disclosure of such event, prepare a supplement or amendment, including a post-effective amendment, to a Registration Statement or a supplement to the related Prospectus or any document incorporated or deemed to be incorporated therein by reference, and file any other required document so that, as thereafter delivered, neither a Registration Statement nor such Prospectus will contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. If the Company notifies the Holders in accordance with clauses (iii) through (vii) of Section 3(d) above to suspend the use of any Prospectus until the requisite changes to such Prospectus have been made, then the Holders shall suspend use of such Prospectus. The Company will use its reasonable best efforts to ensure that the use of the Prospectus may be resumed as promptly as is practicable. The Company shall be entitled to exercise its right under this Section 3(k) to suspend the availability of a Registration Statement and Prospectus, subject to the payment of partial liquidated damages otherwise required pursuant to Section 2(d), for a period not to exceed 60 calendar days (which need not be consecutive days) in any 12-month period.

(l) Otherwise use reasonable best efforts to comply with all applicable rules and regulations of the Commission under the Securities Act and the Exchange Act, including, without limitation, Rule 172 under the Securities Act, file any final Prospectus, including any supplement or amendment thereof, with the Commission pursuant to Rule 424 under the Securities Act, promptly inform the Holders in writing if, at any time during the Effectiveness Period, the Company does not satisfy the conditions specified in Rule 172 and, as a result thereof, the Holders are required to deliver a Prospectus in connection with any disposition of Registrable Securities and take such other actions as may be reasonably necessary to facilitate the registration of the Registrable Securities hereunder.

(m) The Company shall use its reasonable best efforts to maintain eligibility for use of Form S-3 (or any successor form thereto) for the registration of the resale of Registrable Securities

(n) The Company may require each selling Holder to furnish to the Company a certified statement as to the number of shares of Common Stock beneficially owned by such Holder and, if required by the Commission, the natural persons thereof that have voting and dispositive control over the shares. During any periods that the Company is unable to meet its obligations hereunder with respect to the registration of the Registrable Securities solely because any Holder fails to furnish such required information within three (3) Trading Days of the Company's request, any liquidated damages that are accruing at such time as to such Holder only shall be tolled and any Event that may otherwise occur solely because of such delay shall be suspended as to such Holder only, until such information is delivered to the Company.

Section 4. Registration Expenses. All fees and expenses incident to the performance of or compliance with this Agreement by the Company shall be borne by the Company whether or not any Registrable Securities are sold pursuant to a Registration Statement. The fees and expenses referred to in the foregoing sentence shall include, without limitation, (i) all registration and filing fees (including, without limitation, fees and expenses of the Company's counsel and independent registered public accountants) (A) with respect to filings made with the Commission, (B) with respect to filings required to be made with any Trading Market on which the Common Stock is then listed for trading, (C) in compliance with applicable state securities or Blue Sky laws reasonably agreed to by the Company in writing (including, without limitation, fees and disbursements of counsel for the Company in connection with Blue Sky qualifications or exemptions of the Registrable Securities) and (D) if not previously paid by the Company, with respect to any filing that may be required to be made by any broker through which a Holder intends to make sales of Registrable Securities with FINRA pursuant to FINRA Rule 5110, so long as the broker is receiving no more than a customary brokerage commission in connection with such sale, (ii) printing expenses (including, without limitation, expenses of printing certificates for Registrable Securities), (iii) messenger, telephone and delivery expenses, (iv) fees and disbursements of counsel for the Company, (v) Securities Act liability insurance, if the Company so desires such insurance, and (vi) fees and expenses of all other Persons retained by the Company in connection with the consummation of the transactions contemplated by this Agreement. In addition, the Company shall be responsible for all of its internal expenses incurred in connection with the consummation of the transactions contemplated by this Agreement (including, without limitation, all salaries and expenses of its officers and employees performing legal or accounting duties), the expense of any annual audit and the fees and expenses (including application and filing fees) incurred in connection with the listing of the Registrable Securities on any securities exchange as required hereunder. In no event shall the Company be responsible for any broker or similar commissions of any Holder or, except to the extent provided for in the Transaction Documents, any legal fees or other costs of the Holders.

Section 5. Indemnification.

(a) Indemnification by the Company. The Company shall, notwithstanding any termination of this Agreement, indemnify and hold harmless each Holder who sells Registrable Securities covered by such Registration Statement and the officers, directors, members, stockholders, partners, advisors, agents, brokers, employees and other representatives (and any other Persons with a functionally equivalent role of a Person holding such titles, notwithstanding a lack of such title or any other title) of each of them, each Person who controls any such Holder (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act) and the officers, directors, members, stockholders, partners, advisors, agents, brokers, employees and other representatives (and any other Persons with a functionally equivalent role of a Person holding such titles, notwithstanding a lack of such title or any other title) of each such controlling Person, to the fullest extent permitted by applicable law, from and against any and all losses, claims, damages, liabilities, costs (including, without limitation, reasonable attorneys' fees) and expenses (collectively, "Losses"), as incurred, arising out of or relating to (1) any untrue or alleged untrue statement of a material fact contained in a Registration Statement, any Prospectus or any form of prospectus or in any amendment or supplement thereto or in any preliminary prospectus, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus or supplement thereto, in light of the circumstances under which they were made) not misleading, (2) any violation or alleged violation by the Company of the Securities Act, the Exchange Act or any other law, including, without limitation, any state securities law, or any rule or regulation thereunder, in connection with the performance of its obligations under this Agreement or (3) any material violation by the Company of this Agreement, except to the extent, but only to the extent, that (i) such untrue statements or omissions are based solely upon information regarding such Holder furnished in writing to the Company by such Holder expressly for use therein, or to the extent that such information relates to such Holder or such Holder's proposed method of distribution of Registrable Securities and was reviewed and expressly approved in writing by such Holder expressly for use in a Registration Statement, such Prospectus or in any amendment or supplement thereto (it being understood that the Holder has approved Annex A and Annex B hereto for this purpose) or (ii) in the case of an occurrence of an event of the type specified in Section 3(d)(iii)-(vii), the use by such Holder of an outdated, defective or otherwise unavailable Prospectus after the Company has notified such Holder in writing that the Prospectus is outdated, defective or otherwise unavailable for use by such Holder and prior to the receipt by such Holder of the Advice contemplated in Section 6(c), but only if and to the extent that following receipt of the Advice the misstatement or omission giving rise to such Loss would have been corrected. The Company shall notify the Holders promptly in writing of the institution, threat or assertion of any Proceeding arising from or in connection with the transactions contemplated by this Agreement of which the Company is aware. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of such indemnified person and shall survive the transfer of any Registrable Securities by any of the Holders in accordance with Section 6(f).

(b) Indemnification by Holders. Each Holder shall, notwithstanding any termination of this Agreement, severally and not jointly, indemnify and hold harmless the Company, its directors, officers, agents, employees and other representatives (and any other Persons with a functionally equivalent role of a Person holding such titles, notwithstanding a lack of such title or any other title), each Person who controls the Company (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, agents, employees or other representatives (and any other Persons with a functionally equivalent role of a Person holding such titles, notwithstanding a lack of such title or any other title) of such controlling Persons, to the fullest extent permitted by applicable law, from and against all Losses, as incurred, to the extent arising out of or based solely upon any untrue or alleged untrue statement of a material fact contained in any Registration Statement, any Prospectus, or in any amendment or supplement thereto or in any preliminary prospectus, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus or supplement thereto, in light of the circumstances under which they were made) not misleading (i) to the extent, but only to the extent, that such untrue statement or omission is contained in any information furnished in writing by such Holder to the Company expressly for inclusion therein or (ii) to the extent, but only to the extent, that such information relates to such Holder's information provided in the Selling Stockholder Questionnaire or the proposed method of distribution of Registrable Securities and was reviewed and expressly approved in writing by such Holder expressly for use in a Registration Statement, such Prospectus or in any amendment or supplement thereto (it being understood that the Holder has approved Annex A and Annex B hereto for this purpose). In no event shall the liability of a Holder be greater in amount than the dollar amount of the proceeds (net of all expenses paid by such Holder in connection with any claim relating to this Section 5 and the amount of any damages such Holder has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission) received by such Holder upon the sale of the Registrable Securities included in the Registration Statement giving rise to such indemnification obligation.

(c) Conduct of Indemnification Proceedings. If any Proceeding shall be brought or asserted against any Person entitled to indemnity hereunder (an "Indemnified Party"), such Indemnified Party shall promptly notify the Person from whom indemnity is sought (the " Indemnifying Party") in writing, and the Indemnifying Party shall have the right to assume the defense thereof, including the employment of counsel reasonably satisfactory to the Indemnified Party and the payment of all fees and expenses incurred in connection with defense thereof, provided that the failure of any Indemnified Party to give such notice shall not relieve the Indemnifying Party of its obligations or liabilities pursuant to this Agreement, except (and only) to the extent that it shall be finally determined by a court of competent jurisdiction (which determination is not subject to appeal or further review) that such failure shall have materially and adversely prejudiced the Indemnifying Party's ability to defend such action.

An Indemnified Party shall have the right to employ separate counsel in any such Proceeding and to participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnified Party or Parties unless: (1) the Indemnifying Party has agreed in writing to pay such fees and expenses, (2) the Indemnifying Party shall have failed promptly to assume the defense of such Proceeding and to employ counsel reasonably satisfactory to such Indemnified Party in any such Proceeding, or (3) the named parties to any such Proceeding (including any impleaded parties) include both such Indemnified Party and the Indemnifying Party, and counsel to the Indemnified Party shall reasonably believe that a material conflict of interest is likely to exist if the same counsel were to represent such Indemnified Party and the Indemnifying Party (in which case, if such Indemnified Party notifies the Indemnifying Party in writing that it elects to employ separate counsel at the expense of the Indemnifying Party, the Indemnifying Party shall not have the right to assume the defense thereof and the reasonable fees and expenses of no more than one separate counsel shall be at the expense of the Indemnifying Party). The Indemnifying Party shall not be liable under this Section 5 (including with respect to any contribution obligations) for any settlement of any such Proceeding effected without its written consent, which consent shall not be unreasonably withheld, delayed or conditioned. No Indemnifying Party shall, without the prior written consent of the Indemnified Party, effect any settlement of any pending Proceeding in respect of which any Indemnified Party is a party, unless such settlement includes an unconditional release of such Indemnified Party from all liability on claims that are the subject matter of such Proceeding.

Subject to the terms of this Agreement, all reasonable fees and expenses of the Indemnified Party (including reasonable fees and expenses to the extent incurred in connection with investigating, preparing to defend or defending such Proceeding in a manner not inconsistent with this Section) shall be paid to the Indemnified Party, as incurred, within ten Trading Days of written notice thereof to the Indemnifying Party, provided that the Indemnified Party shall promptly reimburse the Indemnifying Party for that portion of such fees and expenses applicable to such actions for which such Indemnified Party is finally determined by a court of competent jurisdiction (which determination is not subject to appeal or further review) not to be entitled to indemnification hereunder.

(d) Contribution. If the indemnification under Section 5(a) or 5(b) is unavailable to an Indemnified Party or insufficient to hold an Indemnified Party harmless for any Losses, then each Indemnifying Party shall contribute to the amount paid or payable by such Indemnified Party, in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party and Indemnified Party in connection with the actions, statements or omissions that resulted in such Losses as well as any other relevant equitable considerations. The relative fault of such Indemnifying Party and Indemnified Party shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of a material fact or omission or alleged omission of a material fact, has been taken or made by, or relates to information supplied by, such Indemnifying Party or Indemnified Party, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such action, statement or omission. The amount paid or payable by a party as a result of any Losses shall be deemed to include, subject to the limitations set forth in this Agreement, any reasonable attorneys' or other fees or expenses incurred by such party in connection with any Proceeding to the extent such party would have been indemnified for such fees or expenses if the indemnification provided for in this Section was available to such party in accordance with its terms.

The parties hereto agree that it would not be just and equitable if contribution pursuant to this Section 5(d) were determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to in the immediately preceding paragraph. In no event shall the contribution obligation of a Holder of Registrable Securities be greater in amount than the dollar amount of the proceeds (net of all expenses paid by such Holder in connection with any claim relating to this Section 5 and the amount of any damages such Holder has otherwise been required to pay by reason of such untrue statement or omission or alleged omission) received by it upon the sale of the Registrable Securities giving rise to such contribution obligation.

The indemnity and contribution agreements contained in this Section are in addition to any liability that the Indemnifying Parties may have to the Indemnified Parties.

Section 6. Miscellaneous.

(a) Remedies. In the event of a breach by the Company or by a Holder of any of their respective obligations under this Agreement, each Holder or the Company, as the case may be, in addition to being entitled to exercise all rights granted by law and under this Agreement, including recovery of damages, shall be entitled to specific performance of its rights under this Agreement. Each of the Company and each Holder agrees that monetary damages may not provide adequate compensation for any losses incurred by reason of a breach by it of any of the provisions of this Agreement and hereby further agrees that, in the event of any action for specific performance in respect of such breach, it shall not assert or shall waive the defense that a remedy at law would be adequate.

(b) No Piggyback on Registrations; Prohibition on Filing Other Registration Statements. Neither the Company nor any of its security holders may include securities of the Company in any Registration Statements other than the Registrable Securities until such time as the Registrable Securities have all been registered pursuant to this Agreement. The Company shall not file any other registration statements (other than Registration Statements on Form S-8) until all Registrable Securities are registered pursuant to a Registration Statement that is declared effective by the Commission, provided that this Section 6(b) shall not prohibit the Company from filing amendments to registration statements filed prior to the date of this Agreement so long as no new securities are registered on any such existing registration statements.

(c) Discontinued Disposition. By its acquisition of Registrable Securities, each Holder agrees that, upon receipt of a notice from the Company of the occurrence of any event of the kind described in Section 3(d)(iii) through (vii), such Holder will forthwith discontinue disposition of such Registrable Securities under a Registration Statement until it is advised in writing (the "Advice") by the Company that the use of the applicable Prospectus (as it may have been supplemented or amended) may be resumed. The Company will use its reasonable best efforts to ensure that the use of the Prospectus may be promptly resumed. Any periods during which the Holder is required to discontinue the disposition of the Registrable Securities hereunder shall be subject to the provisions of Section 2(d).

(d) Future Registration Rights. In the event that the Holder and the Company enter into a new registration rights agreement pursuant to Article V of the Investment Agreement, such registration rights agreement shall be on terms no less favorable to the Holder than this Agreement.

(e) Amendments and Waivers. The provisions of this Agreement, including the provisions of this sentence, may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given, unless the same shall be in writing and signed by the Company and the Holders of 50% or more of the then outstanding Registrable Securities (for purposes of clarification, this includes any Registrable Securities issuable upon exercise or conversion of any Security), provided that, if any amendment, modification or waiver disproportionately and adversely impacts a Holder (or group of Holders), the consent of such disproportionately impacted Holder (or group of Holders) shall be required. If a Registration Statement does not register all of the Registrable Securities pursuant to a waiver or amendment effected in compliance with the previous sentence, then the number of Registrable Securities to be registered for each Holder shall be reduced pro rata among all Holders and each Holder shall have the right to designate which of its Registrable Securities shall be omitted from such Registration Statement. Notwithstanding the foregoing, a waiver or consent to depart from the provisions hereof with respect to a matter that relates exclusively to the rights of a Holder or some Holders and that does not directly or indirectly affect the rights of other Holders may be given only by such Holder or Holders of all of the Registrable Securities to which such waiver or consent relates; provided, however, that the provisions of this sentence may not be amended, modified, or supplemented except in accordance with the provisions of the first sentence of this Section 6(e). No consideration shall be offered or paid to any Person to amend or consent to a waiver or modification of any provision of this Agreement unless the same consideration also is offered to all of the parties to this Agreement.

(f) Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be delivered as set forth in the Investment Agreement, *mutatis mutandis*.

(g) Successors and Assigns. This Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of each of the parties and shall inure to the benefit of each Holder. The Company may not assign (except by merger) its rights or obligations hereunder without the prior written consent of all of the Holders of the then outstanding Registrable Securities. Each Holder may assign their respective rights hereunder in the manner and to the Persons as permitted under Section 8.8 of the Investment Agreement.

(h) No Inconsistent Agreements. Neither the Company nor any of its Subsidiaries has entered, as of the date hereof, nor shall the Company or any of its Subsidiaries, on or after the date of this Agreement, enter into any agreement with respect to its securities, that would have the effect of impairing the rights granted to the Holders in this Agreement or otherwise conflicts with the provisions hereof. Neither the Company nor any of its Subsidiaries has previously entered into any agreement granting any registration rights with respect to any of its securities to any Person that have not been satisfied in full.

(i) Execution and Counterparts. This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other party, it being understood that parties need not sign the same counterpart. In the event that any signature is delivered by delivery of a ".pdf" format data file or any electronic signature complying with the U.S. federal ESIGN Act of 2000, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such ".pdf" signature page were an original thereof.

(j) Governing Law. Section 8.11 and 8.12 of the Investment Agreement shall be incorporated herein and shall apply to this Agreement, *mutatis mutandis*.

(k) Cumulative Remedies. The remedies provided herein are cumulative and not exclusive of any other remedies provided by law.

(l) Severability. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions set forth herein shall remain in full force and effect and shall in no way be affected, impaired or invalidated, and the parties hereto shall use their reasonable best efforts to find and employ an alternative means to achieve the same or substantially the same result as that contemplated by such term, provision, covenant or restriction. It is hereby stipulated and declared to be the intention of the parties that they would have executed the remaining terms, provisions, covenants and restrictions without including any of such that may be hereafter declared invalid, illegal, void or unenforceable.

(m) Headings. The headings in this Agreement are for convenience only, do not constitute a part of the Agreement and shall not be deemed to limit or affect any of the provisions hereof.

(n) Independent Nature of Holders' Obligations and Rights. The obligations of each Holder hereunder are several and not joint with the obligations of any other Holder hereunder, and no Holder shall be responsible in any way for the performance of the obligations of any other Holder hereunder. Nothing contained herein or in any other agreement or document delivered at any closing, and no action taken by any Holder pursuant hereto or thereto, shall be deemed to constitute the Holders as a partnership, an association, a joint venture or any other kind of group or entity, or create a presumption that the Holders are in any way acting in concert or as a group or entity with respect to such obligations or the transactions contemplated by this Agreement or any other matters, and the Company acknowledges that the Holders are not acting in concert or as a group, and the Company shall not assert any such claim, with respect to such obligations or transactions. Each Holder shall be entitled to protect and enforce its rights, including without limitation the rights arising out of this Agreement, and it shall not be necessary for any other Holder to be joined as an additional party in any proceeding for such purpose. It is expressly understood and agreed that each provision contained in this Agreement is between the Company and a Holder, solely, and not between the Company and the Holders collectively and not between and among Holders.

(*Signature Pages Follow*)

IN WITNESS WHEREOF, the parties have executed this Registration Rights Agreement as of the date first written above.

PERSPECTIVE THERAPEUTICS, INC.
By: /s/ Johan (Thijs) Spoor
Name: Johan (Thijs) Spoor
Title: Chief Executive Officer

[*Signature Page to Registration Rights Agreement*]

HOLDER:

LANTHEUS ALPHA THERAPY, LLC

By: /s/ Mary Anne Heino

Name: Mary Anne Heino

Title: Chief Executive Officer

[*Signature Page to Registration Rights Agreement*]

PLAN OF DISTRIBUTION

Annex B

SELLING STOCKHOLDERS

Annex C

PERSPECTIVE THERAPEUTICS INC.

SELLING STOCKHOLDER NOTICE AND QUESTIONNAIRE

Exhibit 10.28

Certain information has been excluded from this exhibit (indicated by "[***]") because such information is both (i) not material and (ii) the type that the company treats as private or confidential.

MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH
PATENT LICENSE AGREEMENT

This patent license agreement ("Agreement") is by and between **Mayo Foundation for Medical Education and Research** , a Minnesota charitable corporation, located at 200 First Street SW, Rochester, Minnesota 55905-0001 ("MAYO"), and Viewpoint Molecular Targeting, Inc., doing business as Perspective Therapeutics, a Delaware corporation having a place of business at 2500 Crosspark Rd, Coralville, IA 52241 United States ("COMPANY"), each a "Party," and collectively "Parties".

WHEREAS, MAYO desires to make its intellectual property rights available for the development and commercialization of products, methods, and processes for public use and benefit;

WHEREAS, COMPANY represents itself as being knowledgeable in developing and commercializing radiopharmaceutical and related technologies; and

WHEREAS, MAYO is willing to grant and COMPANY is willing to accept a royalty-bearing license under such rights for the purpose of developing such technology.

NOW THEREFORE, in consideration of the foregoing and the terms and conditions set forth below, the Parties hereby agree as follows:

Article 1.00 – Definitions

For purposes of this Agreement, the terms defined in this Article will have the meaning specified and will be applicable both to the singular and plural forms:

1.01 For MAYO, "Affiliate": any corporation or other entity within the same "controlled group of corporations" as MAYO or its parent Mayo Clinic. For purposes of this definition, the term "controlled group of corporations" will have the same definition as Section 1563 of the Internal Revenue Code as of November 10, 1998, but will include corporations or other entities which if not a stock corporation, more than fifty percent (50%) of the board of directors or other governing body of such corporation or other entity is controlled by a corporation within the controlled group of corporations of MAYO or Mayo Clinic. MAYO's Affiliates include, but are not limited to: Mayo Clinic; Mayo Collaborative Services, Inc.; Mayo Clinic Hospital, Rochester; Mayo Clinic Florida; Mayo Clinic Arizona; and its Mayo Clinic Health System entities.

For COMPANY, "**Affiliate**": any corporation or other entity that controls, is controlled by, or is under common control with, COMPANY. For purposes of this definition, "control" means ownership of: (a) at least fifty percent (50%) or the maximum percentage, if less than fifty percent (50%), as allowed by applicable law, of the outstanding voting securities of such entity; or (b) at least fifty percent (50%) of the decision-making authority of such entity.

1.02 "**Confidential Information**": all proprietary unpublished or nonpublic information or materials including, but not limited to, written, oral, or virtually presented information and such items as electronic media products, trade secrets, financial information, equipment, databases, and the like provided by one Party to the other under this Agreement, or which is observed by a Party while on the other Party's premises. Confidential Information does not include any information or material that receiving party evidences is: (a) already known to the receiving Party at the time of disclosure (other than from the disclosing Party); (b) publicly known other than through acts or omissions of the receiving Party; (c) disclosed to the receiving Party by a third party who was not and is not under any obligation of confidentiality; or (d) independently developed by employees of the receiving party without knowledge of or access to the Confidential Information.

1.03 "**Effective Date**": December 22, 2023

1.04 "**Field**": Pb-Cu modified PSMA for therapy and not imaging. For clarity, the Field includes any combination of lead (Pb) and copper (Cu) isotopes chelated to the PSMA targeting ligand for use in radiopharmaceutical therapy.

1.05 Intentionally Left Blank.

1.06 "**Foreground Patent Rights**": patent applications, other than those included in Patent Rights, filed by the COMPANY or MAYO on inventions directly related to the Field and arising as a result of a Mayo Investigator providing the Know-How and for which a Mayo Investigator is a named inventor including any provisionals, any patent applications claiming priority thereto, including divisionals, continuations therefrom, patents issuing thereon, re-examinations and re-issues thereof, as well as extensions and supplementary protection certificates and any foreign counterpart of any of the foregoing. Mayo Investigator(s) must assign their rights in any inventions to MAYO. COMPANY shall not acquire any intellectual property rights directly from Mayo Investigator(s) under this Agreement.

1.07 [***]

1.08 [***]

1.09 [***]

1.10 "**Know-How**": research and development information, written materials, unpatented inventions, trade secrets, know-how, and supportive information of a Mayo Investigator or Mayo Investigators in the Field, owned and controlled by MAYO as of the Effective Date, to the extent it is necessary for the development or manufacture of a Licensed Product [***].

1.11 "**Licensed Product**": any product, process, or service: (a) the manufacture, use, sale, offer for sale or importation of which is covered by an issued claim of the Patent Rights; (b) the manufacture, use, sale, offer for sale or importation of which is covered by an issued claim of the Foreground Patent Rights; or (c) the development, manufacture, use, sale, offer for sale or importation of which incorporates, uses, was derived from, identified by, validated or developed in whole or in part using the Know-How.

1.12 "**Mayo Investigator**"**:** any or all of: **[***]**.

1.13 "**Mayo Rights and Information**"**:** Patent Rights, Foreground Patent Rights, Know-How, and Mayo's Confidential Information.

1.14 "**Net Sales**": the amount invoiced by COMPANY or, in the case of a permitted sublicense, a Sublicensee for the transfer of a Licensed Product to a third party, less documented:

(a) normal and customary trade discounts, including trade, cash and quantity discounts or rebates credits or refunds, actually allowed or taken;

(b) credits or allowances actually granted or made for rejection of or return of previously sold Licensed Products, including recalls, or for retroactive price reductions and billing errors or for stocking allowances;

(c) governmental and other rebates (or credits or other equivalents thereof) actually granted to managed health care organizations, commercial insurance companies, pharmacy benefit managers (or equivalents thereof), distributors, national, state/provincial, local, and other governments, their agencies and purchasers, and reimbursers, or to trade customers;

(d) reasonable fees paid to wholesalers, distributors, selling agents, group purchasing organizations, Third Party payors, and managed care entities, in each case with respect to the Licensed Product;

(e) charges separately invoiced for freight, insurance, transportation, postage and handling;

(f) taxes, custom duties or other governmental charges (including any tax, such as a value added or similar tax or government charge, but excluding what is commonly known as income tax) levied on or measured by the billing amount for Licensed Products, as adjusted for rebates and refunds; and

(g) bad debts or provision for bad debts deductions actually written off during the applicable accounting period following the applicable accounting standards used by the Company.

Leasing, lending, consigning or any other activity by means of which a non-affiliated third party acquires the right to possess or use a Licensed Product shall be deemed a transfer for the purpose of determining Net Sales. Net Sales on Licensed Products transferred as part of a non-cash exchange shall be calculated at the then-current customary sales price invoiced to third parties or fair market value if there are no current invoices to third parties. If COMPANY transfers Licensed Products to an Affiliate, and the Affiliate retransfers the Licensed Products to third-party customers, then Net Sales shall be the price charged by the Affiliate to third-party customers, less documented allowable deductions. If such Affiliate does not retransfer the Licensed Product to third-party customers within one year, Net Sales shall be calculated to be the higher of:

(a) the price charged by the COMPANY to the Affiliate, or

(b) the average price charged by the COMPANY to third-party customers, or

(c) in the absence of sales to third-party customers, the fair market price for the Licensed Products.

Net Sales accrues with the first of delivery or invoice. Licensed Products transferred to MAYO or its Affiliates are not considered for purposes of determining Net Sales or for calculating Earned Royalties.

1.15 "**Patent Rights**": **[***]**, and provisionals, any patent applications claiming priority thereto, including divisionals, continuations, and continuations-in-part (but only for subject matter supported pursuant to 35 U.S.C. §112 by the foregoing) therefrom, patents issuing thereon, re-examinations and re-issues thereof, as well as extensions and supplementary protection certificates and any foreign counterpart of any of the foregoing.

1.16 "**Regulatory Approvals**": with respect to a Licensed Product, means the approvals, registrations, licenses and permits of any Regulatory Authority in a country, including pricing and/or reimbursement approvals, that are necessary to be obtained to market and sell commercially such Licensed Product in that country. For the avoidance of doubt, any emergency use authorization issued by the FDA or other applicable Regulatory Authority shall be considered a Regulatory Approval.

1.17 "**Regulatory Authority**": any federal, state, or local regulatory agency, department, bureau or other government entity, including without limitation the FDA, EMEA, or PMDA, which has responsibility for granting any licenses or approvals or granting pricing and/or reimbursement approvals necessary for the marketing and sale of a Licensed Product in any country.

1.18 "**Sublicensee**": any third party or any Affiliate to whom COMPANY has conveyed rights or the forbearance of suit under the Patent Rights or Foreground Patent Rights.

1.19 "**Sublicense Income**": consideration in any form received by COMPANY from each Sublicensee, excluding amount paid MAYO on Net Sales. Sublicense Income shall include all fees, payments, equity, research and development funding in excess of COMPANY's reasonable and documented costs of performing such research and development, and any consideration received for an equity interest in, extension of credit to, or other investment in COMPANY, to the extent such consideration exceeds the fair market value as promptly determined by agreement of the Parties or by an independent appraiser mutually agreeable to the Parties. Sublicense Income shall also include any option fees, option payments or option consideration in any form received by COMPANY from a third party for an option to the Mayo Rights and Information.

1.20 "**Term**": begins on the Effective Date and ends, subject to Article 10 (Term and Termination), upon the later of (a) the expiration date of the last to expire of the Patent Rights or Foreground Patent Rights; or (b) the date of discontinuation of the sales of the Licensed Product as defined in 1.11 (c).

1.21 "**Territory**": Worldwide.

1.22 **[***]**

1.23. "**Third Party**": any entity or individual that is not a Party or an Affiliate.

Article 2.00 - Grant of Rights

2.0l GRANT. Subject to the terms and conditions of this Agreement, MAYO grants to COMPANY:

(a) an exclusive license with the right to sublicense, within the Field and Territory, under the Patent Rights to make, have made, use, offer for sale, sell, and import Licensed Products;

(b) an exclusive license with the right to sublicense, within the Field and Territory, under the Foreground Patent Rights to make, have made, use, offer for sale, sell, and import Licensed Products; and

(c) a nonexclusive license, without the right to sublicense, within the Field and Territory, to use the Know-How to develop, make, have made, use, offer for sale, sell, and import Licensed Products.

2.02 KNOW-HOW ACCESS. For a period of [***] following the Effective Date, MAYO will provide reasonable access to Mayo Investigator(s) to transfer Know-How, but in no event shall MAYO be required to provide any Know-How in tangible form if it does not exist in tangible form as of the Effective Date. The time Mayo Investigator(s) spend transferring the Know-How will be borne solely by MAYO and not the COMPANY.

2.03 RESERVATION OF RIGHTS. All rights herein are subject to: (a) the rights and obligations to and requirements of the U.S. government, if any have arisen or may arise, regarding the Patent Rights, Foreground Patent Rights, and Know-How including as set forth in 35 U.S.C. §§200 et al., 37 C.F.R. Part 401 et al. ("Bayh-Dole Act"); and (b) MAYO's and its Affiliates' reserved, irrevocable right to practice and have practiced the Patent Rights, Foreground Patent Rights, and Know-How, in connection with the educational, research and clinical programs of MAYO (including Mayo Clinic Platform and MAYO's reference laboratory), MAYO's Affiliates (including Mayo Collaborative Services, Inc.) and the Mayo Clinic Care Network. COMPANY agrees to comply with the provisions of the Bayh-Dole Act, including promptly providing MAYO with the information requested to enable MAYO to meet its compliance requirements and substantially manufacturing Licensed Product in the U.S.

2.04 NO OTHER RIGHTS GRANTED. This Agreement does not grant any right, title, or interest outside of the Field or Territory or any right, title, or interest in or to any tangible or intangible property right of MAYO or its Affiliates, including but not limited to any patent rights, know-how or material or any improvements thereon, that is not expressly stated in Section 2.01 (Grant). All such rights, titles, and interests are expressly reserved by MAYO and COMPANY agrees that in no event will this Agreement (i) exhaust any MAYO patent rights, or (ii) be construed as a sale, an assignment, or an implied license by MAYO or its Affiliates to COMPANY of any tangible or intangible property rights.

2.05 SUBLICENSES. Upon written approval from MAYO, COMPANY may grant sublicenses to Sublicensees. Any sublicense by COMPANY shall be to a Sublicensee that agrees in writing to be bound by substantially the same terms and conditions as COMPANY herein, excluding financial terms and conditions, or such sublicense shall be null and void. Sublicenses granted hereunder shall not be transferable, including by further sublicensing, delegatable or assignable without the prior written approval of MAYO or such further sublicensing, delegation or assignation shall be null and void. COMPANY will provide MAYO with an unredacted copy of each sublicense agreement promptly after execution. COMPANY is responsible for the performance of all Sublicensees as if such performance were carried out by COMPANY itself, including the payment of any royalties or other payments provided for hereunder triggered by such Sublicense, regardless of whether the terms of any sublicense require that Sublicensee pay such amounts (such as in a fully paid-up license) to COMPANY or that such amounts be paid by the Sublicensee directly to MAYO. Each sublicense agreement shall name MAYO as a third party beneficiary and, unless MAYO has provided written consent, all rights of Sublicensees shall terminate when COMPANY's rights terminate. COMPANY shall not grant any fully-paid up, royalty-free or exclusive sublicenses without MAYO's prior written consent.

Article 3.00 – Up-Front and Royalties

3.01 UP-FRONT. Within **[***]** of the Effective Date, COMPANY will make a nonrefundable and noncreditable up-front cash payment to MAYO of ONE MILLION DOLLARS (US $1,000,000) for entering into this Agreement.

3.02 MILESTONE FEES. COMPANY will pay MAYO the following nonrefundable and noncreditable milestone fees for each Licensed Product developed by COMPANY upon every achievement of the following events:

	EVENT	MILESTONE PAYMENT
1	**[***]**	**[***]**
2	**[***]**	**[***]**
3	**[***]**	**[***]**
4	**[***]**	**[***]**
5	**[***]**	**[***]**
6	**[***]**	**[***]**
7	**[***]**	**[***]**
8	**[***]**	**[***]**
9	**[***]**	**[***]**

[***]

3.03 EARNED ROYALTIES. COMPANY will make nonrefundable and noncreditable earned royalty payments ("Earned Royalties") to MAYO of:

(i) **[***]** of Net Sales of Licensed Products defined under subsection (a) of Section 1.11 (Licensed Product);

(ii) **[***]** of Net Sales of Licensed Products defined under subsection (b) of Section 1.11 (Licensed Product); or

(iii) **[***]** of Net Sales of Licensed Products defined under subsection (c) of Section 1.11 (Licensed Product).

The Earned Royalties are payable as described in Section 4.01 (Reports and Payment). No Earned Royalties are due MAYO on transfers to MAYO or MAYO Affiliates. If multiple Earned Royalty are due under any of the subsections (i), (ii), and (iii) above, the highest of the three Earned Royalties shall be paid.

3.04 PRIORITY REVIEW. If COMPANY receives an FDA priority review voucher or similar transferrable asset based on a submission relating to a Licensed Product and elects to sell or otherwise transfer such asset, COMPANY will share with MAYO forty percent (40%) of any consideration in any form received by COMPANY for such priority review voucher or similar asset within **[***]** of COMPANY's receipt of such consideration.

3.05 TAXES. Each Party shall be responsible for (and remit as prescribed by the laws of any duly constituted taxing authority with jurisdiction) any sales, use, transaction privilege, gross receipts, cash collections, value added, excise, goods and services, transfer or similar taxes, duties, customs, tariffs, imposts or any surcharges or escheat requirements (collectively, "Taxes") imposed upon such Party: (a) by reason of the performance by MAYO of its obligations under this Agreement, or the payment of any amounts by COMPANY to MAYO under this Agreement; (b) based on the rights granted herein; or (c) related to use, sale or importation of the Licensed Product. For jurisdictions where Taxes are imposed by statute upon COMPANY, without statutory provision for recovery from MAYO, COMPANY shall bear the Taxes in full and without reimbursement. For jurisdictions where Taxes are imposed by statute upon MAYO but collected or withheld by COMPANY, and if COMPANY does not collect or withhold such tax from MAYO and is subsequently audited by any tax authority, liability of MAYO will be limited to the tax assessment, with no reimbursement for penalty or interest charges. Any Taxes that COMPANY is required by law to withhold on remittance of the Earned Royalties or other payments under this Agreement shall be paid forthwith to MAYO in an amount which shall result in the net amount being received by MAYO being equal to the amount which would have been received by MAYO had no such deduction or withholding been made. If necessary, COMPANY will obtain, or assist MAYO in obtaining, any tax reduction (including avoidance of double taxation), tax refund or tax exemption available to MAYO by treaty or otherwise.

3.06 U.S. CURRENCY. All payments to MAYO under this Agreement will be made by draft drawn on a U.S. bank, and payable in U.S. dollars. If conversion from foreign currency is required in calculating a payment under this Agreement, the exchange rate used shall be the Interbank rate quoted by US Bank at the end of the last business day of the quarter in which the payment accrued.

3.07 OVERDUE PAYMENTS. If overdue, the payments due under this Agreement shall bear interest until payment at a rate of **[***]**. The interest payment shall be due from the day the original payment was due until the day that the payment was received by MAYO. MAYO shall be entitled to recover, in addition to all other remedies, reasonable attorneys' fees and costs related to the administration or enforcement of this Agreement, including collection of payments, following COMPANY's such failure to pay. The acceptance of any payment, including such interest, shall not foreclose MAYO from exercising any other right or seeking any other remedy that it may have as a consequence of the failure of COMPANY to make any payment when due.

3.08 SUBLICENSE INCOME ROYALTY. COMPANY will make nonrefundable and noncreditable payments to MAYO of **[***]** of Sublicense Income for Licensed Products defined under subsection (a) of Section 1.11 (Licensed Product) or **[***]** for Licensed Products defined under subsections (b) or (c) of Section 1.11 (Licensed Product). The Sublicense Income is payable as described in Section 4.01 (Reports and Payment).

Article 4.00 - Accounting and Reports

4.01 REPORTS AND PAYMENT. COMPANY will deliver to MAYO on or before the following dates: 15 February and 15 August, a written report setting forth a full accounting showing how any amounts due to MAYO for the preceding calendar half-year have been calculated as provided in this Agreement, including **[***]**an accounting of total Net Sales and Sublicense Income with a reporting of any applicable foreign exchange rates, deductions, allowances, and charges and any payments due from Sublicensees. Each report will include product names, part numbers, and quantity sold for each country in which the Licensed Product was sold. Furthermore, the report will include **[***]** information about Licensed Products sold to MAYO or MAYO Affiliates, pursuant to Section 3.03 (Earned Royalties) If no Licensed Product transfers have occurred and no other amounts are due to MAYO, COMPANY will submit a report so stating. Each such report will be accompanied by the payment of all amounts due for such reporting period. All correspondence from COMPANY pursuant to this Section must include the following e-mail address: **[***]**.

4.02 ACCOUNTING. COMPANY will, and shall require its Affiliates and Sublicensees to keep, throughout the Term, to keep complete, continuous, true and accurate books of accounts and records sufficient to support and verify the calculation of Net Sales, all royalties and any other amount believed due and payable to MAYO under this Agreement. Such books and records will be open at all reasonable times for inspection by a representative of MAYO for audit and verification of royalty statements or for compliance with other aspects of this Agreement. The MAYO representative will treat as confidential all relevant matters and will be a person or firm reasonably acceptable to COMPANY. If such audit reveals an underpayment by COMPANY, COMPANY will within **[***]** pay the royalty due in excess of the royalty actually paid. If the audit reveals an underpayment by COMPANY of more than **[***]** of the amount due, COMPANY will pay interest on the royalty due in excess of the royalty actually paid at the highest rate then permitted by law. In the event of an underpayment of more than **[***]**, COMPANY will pay all of MAYO's costs in conducting the audit.

Article 5.00 - Diligence

5.01 DEVELOPMENT PLAN. COMPANY will make commercially reasonable efforts to bring Licensed Products to market in the Field and in the Territory. COMPANY has provided MAYO with a development plan that describes how COMPANY intends to bring Licensed Products to market, attached to this Agreement as Exhibit A, *Development Plan*, incorporated herein by reference.

5.02 DEVELOPMENT MILESTONES. In partial satisfaction of its obligations to bring Licensed Products to market, COMPANY will achieve the following commercial development milestones by the dates set forth below. COMPANY will promptly notify MAYO upon the achievement of each development milestone, identify whether COMPANY or a Sublicensee is responsible for the achievement of such milestone, and the actual date of such achievement.

Development Milestones	
Milestone	Date
[***]	**[***]**
[***]	**[***]**
[***]	**[***]**
[***]	**[***]**

[***]

5.03 DILIGENCE REPORTS. COMPANY will provide MAYO with annual reports within **[***]** of each anniversary of the Effective Date describing in detail: **[***]**.

5.04 DELAY IN REACHING MILESTONES. If one of the development milestones set forth in Section 5.02 (Development Milestones) is not achieved by the corresponding date for such Development Milestones, COMPANY and MAYO shall meet to discuss, in good faith, an alternative Development Milestone or allow for a reasonable extension, so long as **[***]**. If MAYO and COMPANY are unable to timely agree on a mutual resolution after good faith efforts, MAYO and COMPANY will engage with their executive leadership in an attempt to resolve such matter.

Article 6.00 – Intellectual Property Management

6.01 CONTROL OF PATENT RIGHTS. MAYO will have the sole right to prepare, file, prosecute, maintain, abandon, or otherwise handle the Patent Rights and Know-How, at its sole discretion, at MAYO's expense. MAYO will keep COMPANY informed of these activities by email as filings and office actions occur. MAYO will have no liability to COMPANY for any act or omission in the preparation, filing, prosecution, maintenance, abandonment, enforcement, defense, or other handling of the Patent Rights and Know-How.

6.02 CONTROL OF FOREGROUND PATENT RIGHTS. COMPANY will have the first right to prepare, file, prosecute, abandon, or otherwise handle the Foreground Patent Rights with prior advice and comment from MAYO. **[***]** shall pay all costs and expenses associated with the filing, prosecution, and maintenance of the Foreground Patent Rights, whether arising before or during the Term. If the COMPANY decides not to (i) file an application which would constitute Foreground Patent Rights; or (ii) prosecute or maintain an application or patent within the Foreground Patent Rights; or (iii) pursue claims suggested by MAYO, COMPANY shall inform MAYO of such decision at least **[***]** prior to the relevant deadline. MAYO shall have the right, but not the obligation, to (a) file an application which would constitute Foreground Patent Rights; (b) continue the prosecution or maintenance of an application or patent abandoned by COMPANY; or (c) file a patent application pursuing claims not pursued by COMPANY, **[***]** shall pay the cost of such activity, and any license to the COMPANY for such patent rights shall terminate. MAYO shall have sole control over the protection, defense, enforcement, maintenance, abandonment, and other handling of the Know-How. **[***]**. After the Effective Date, all correspondence from COMPANY pursuant to this Section must include the following e-mail address: **[***]**.

6.03 ENFORCEMENT OF PATENT RIGHTS. **[***]** will have the sole right to take, or not to take, any measures deemed appropriate by **[***]**, including the bringing or defending of suits, to prevent infringement of the Patent Rights. **[***]**

6.04 ENFORCEMENT OF FOREGROUND PATENT RIGHTS. If COMPANY becomes aware of a third-party infringement of any unexpired claim within the Foreground Patent Rights, COMPANY will promptly provide MAYO with written notice and provide MAYO a sample of the alleged infringing article. If MAYO agrees that the article infringes one or more claims of the Foreground Patent Rights, the Parties will confer to decide upon an appropriate course of action, if any, to take against the infringer in view of all of the circumstances then existing. MAYO shall not be required to join such action unless it has agreed to do so in writing prior to the commencement thereof, or unless deemed by a court of competent jurisdiction as a necessary party.

6.05 PATENT TERM EXTENSION FOR PATENT RIGHTS AND FOREGROUND PATENT RIGHTS . With respect to Patent Rights and Foreground Patent Rights, **[***]**. Each Party agrees to execute any documents and to take any additional actions as the other Party may reasonably request in connection therewith.

6.06 PATENT MARKING. To the extent commercially feasible, COMPANY will mark all Licensed Products that are manufactured or sold under this Agreement with the number of each issued patent within the Patent Rights and Foreground Patent Rights that cover such Licensed Product(s). Any such marking will be in conformance with the patent laws and other laws of the country of manufacture or sale.

6.07 DEFENSE OF PATENT RIGHTS AND FOREGROUND PATENT RIGHTS . **[***]** will have the sole right with regards to Patent Rights, and the first right with regards to Foreground Patent Rights, but not the obligation, to take any measures deemed appropriate by **[***]**, regarding (a) challenges to the Patent Rights or Foreground Patent Rights (including interferences, inter partes review, post grant review, cover business method, ex parte examination, or derivation proceedings in the U.S. Patent and Trademark Office and oppositions in foreign jurisdictions) and (b) defense of the Patent Rights or Foreground Patent Rights (including declaratory judgment actions). **[***]**

6.08 THIRD PARTY LITIGATION. If a third party institutes a suit against COMPANY for infringement of intellectual property involving a Licensed Product, COMPANY will promptly inform MAYO and keep MAYO regularly informed of the proceedings. **[***]**

Article 7.00 – Use of Name

7.01 USE OF NAME AND LOGO. Neither Party will use for publicity, promotion or otherwise, any logo, name, trade name, service mark or trademark of the other Party or its Affiliates, or any simulation, abbreviation or adaptation of the same, or the name of any employee or agent of the other Party, without that Party's prior, written, express consent. A Party may withhold such consent in that Party's absolute discretion. MAYO's marks include, but are not limited to the terms **[***]**. With regard to the use of MAYO's name, all requests for approval pursuant to this Section must be submitted to the **[***],** at the e-mail address: **[***]** at least **[***]** prior to the date on which a response is needed.

Article 8.00 - Confidentiality

8.01 TREATMENT OF CONFIDENTIAL INFORMATION. Except as provided for in Section 8.02 (Right to Disclose), neither Party will disclose, use or otherwise make available the other's Confidential Information during the Term and for **[***]** thereafter and will use at least the same degree of care it employs to protect its own confidential information.

8.02 RIGHT TO DISCLOSE.

(a) To the extent it is reasonably necessary or appropriate to fulfill its obligations or exercise its rights under this Agreement, COMPANY may disclose Confidential Information of MAYO to its Sublicensees, consultants and outside contractors on the condition that each such entity or person agrees to obligations of confidentiality and non-use at least as stringent as those herein.

(b) To the extent it is reasonably necessary or appropriate to fulfill its obligations or exercise its rights under this Agreement, MAYO may disclose Confidential Information of COMPANY to its consultants and outside contractors on the condition that each such entity agrees to obligations of confidentiality and non-use at least as stringent as those herein.

(c) If a Party is required by law, regulation, or court order to disclose any of the Confidential Information, it will have the right to do so, provided it: (i) promptly notifies the disclosing Party; and (ii) reasonably assists the disclosing Party to obtain a protective order or other remedy of disclosing Party's election and at the disclosing Party's expense, and only disclose the minimum amount necessary to satisfy such obligation.

8.03 CONFIDENTIALITY OF AGREEMENTS. Except as otherwise required by law, the specific terms and conditions of this Agreement shall be Confidential Information but the existence of this Agreement will not be Confidential Information and the Parties may state that COMPANY is licensed under the Patent Rights, Foreground Patent Rights, and Know-How.

Article 9.00 – Warranties, Representations, Disclaimers and Indemnification

9.01 REPRESENTATIONS AND WARRANTIES OF COMPANY. COMPANY warrants and represents to MAYO that:

(a) it is experienced in the development, production, quality control, service, manufacture, marketing, and sales of products similar to the subject matter of the Mayo Rights and Information and it will **[***]** (b) it has independently evaluated the Mayo Rights and Information and their applicability or utility in COMPANY's activities, as well as any applicable regulatory processes or proceedings, testing, and financial or performance projections, and is entering into this Agreement on the basis of its own evaluation and not in reliance of any representation or estimations by MAYO, and **[***]**;

(c) it now maintains and will continue to maintain throughout the Term and beyond insurance coverage as set forth in Section 9.05 (Indemnification and Insurance) and that such insurance coverage sufficiently covers the MAYO Indemnitees; and

(d) it shall comply and require its Sublicensees to comply with all applicable international, national and state laws, ordinances and regulations in its performance under this Agreement.

9.02 Mutual Representations and Warranties. Each Party represents and warrants to the other that, as of the Effective Date:

(a) it is duly organized and validly existing under the laws of its jurisdiction of incorporation or formation, and has full corporate or other power and authority to enter into this Agreement and to carry out the provisions hereof;

(b) it is duly authorized to execute and deliver this Agreement and to perform its obligations hereunder, and the person or persons executing this Agreement on its behalf has been duly authorized to do so by all requisite corporate or partnership action; and

(c) this Agreement is legally binding upon it, enforceable in accordance with its terms, and does not conflict with any agreement, instrument or understanding, oral or written, to which it is a party or by which it may be bound, nor violate any material law or regulation of any court, governmental body or administrative or other agency having jurisdiction over it.

9.03 MAYO Representations and Warranties. MAYO represents and warrants to Licensee that to Mayo Clinic Ventures' knowledge as of the Effective Date of this Agreement:

(a) Exhibit A attached hereto contains a true and complete list of the Patent Rights existing on the Effective Date;

(b) MAYO (i) has the right to grant the licenses that it purports to grant in Article 2.01 (Grant) (including, without limitation, that MAYO has not entered into any undertaking that limits, nor is subjected to any constraints that limit, its rights or freedom to grant the licenses); and (ii) has not granted to any Third Party any license or other right with respect to Patent Rights, Foreground Patent Rights or Know-How that conflicts with the license and rights granted to COMPANY herein; and

(c) MAYO has not received any written claims, nor is it a party to any judgments or settlements against or owed by MAYO (or any of its Affiliates) with respect to the Patent Rights or Know-How, and MAYO is not a party to any legal action, suit or proceeding relating to the Patent Rights or Know-How, nor has MAYO received any written communication from any Third Party, including, without limitation, any regulatory authority or other government agency, threatening such action, suit or proceeding with respects to the Patent Rights.

9.04 DISCLAIMERS.

(a) MAYO HAS NOT MADE AND DOES NOT MAKE ANY PROMISES, COVENANTS, GUARANTEES, REPRESENTATIONS OR WARRANTIES OF ANY NATURE, DIRECTLY OR INDIRECTLY, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SUITABILITY, DURABILITY, CONDITION, QUALITY OR ANY OTHER CHARACTERISTIC OF THE MAYO RIGHTS AND INFORMATION.

(b) MAYO RIGHTS AND INFORMATION ARE PROVIDED "AS IS," "WITH ALL FAULTS" AND "WITH ALL DEFECTS," AND COMPANY EXPRESSLY WAIVES ALL RIGHTS TO MAKE ANY CLAIM WHATSOEVER AGAINST MAYO FOR MISREPRESENTATION OR FOR BREACH OF PROMISE, GUARANTEE, REPRESENTATION OR WARRANTY OF ANY KIND RELATING TO THE MAYO RIGHTS AND INFORMATION. MAYO EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTIES ARISING FROM ANY COURSE OF DEALING, USAGE, OR TRADE PRACTICE, (i) WITH RESPECT TO THE SCOPE, VALIDITY OR ENFORCEABILITY OF THE MAYO RIGHTS AND INFORMATION; (ii) THAT ANY PATENT WILL ISSUE BASED UPON ANY PENDING PATENT APPLICATION; OR (iii) THAT THE USE, SALE, OFFER FOR SALE OR IMPORTATION OF THE LICENSED PRODUCT WILL NOT INFRINGE OTHER INTELLECTUAL PROPERTY RIGHTS. MAYO FURTHER MAKES NO REPRESENTATION OR WARRANTY TO COMPANY AS TO ANY FUTURE REGULATORY PROCESSES OR PROCEEDINGS, TESTING, OR FINANCIAL OR PERFORMANCE PROJECTIONS DELIVERED TO OR MADE AVAILABLE TO COMPANY. NOTHING IN THIS AGREEMENT WILL BE CONSTRUED AS AN OBLIGATION FOR MAYO TO BRING, PROSECUTE OR DEFEND ACTIONS REGARDING THE MAYO RIGHTS AND INFORMATION.

(c) COMPANY AGREES THAT MAYO AND ITS AFFILIATES WILL NOT BE LIABLE FOR ANY LOSS OR DAMAGE CAUSED BY OR ARISING OUT OF THE USE OR PRACTICE BY COMPANY, SUBLICENSEE OR A THIRD PARTY OF ANY RIGHTS GRANTED HEREUNDER, OR PERFORMANCE MADE BY COMPANY UNDER THIS AGREEMENT, UNLESS SUCH LOSS OR DAMAGE IS DUE TO THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF MAYO. **[***]**.

9.05 INDEMNIFICATION AND INSURANCE.

(a) COMPANY will defend, indemnify and hold harmless MAYO, MAYO's Affiliates and their respective trustees, officers, agents, independent contractors and employees ("MAYO Indemnitees") from any and all claims, actions, demands, judgments, losses, costs, expenses, damages and liabilities (including attorneys' fees, court costs and other expenses of litigation), regardless of the legal theory asserted, arising out of or connected with: (i) the practice or exercise of any rights granted hereunder by or on behalf of COMPANY or any Sublicensee; (ii) research, development, design, manufacture, distribution, use, sale, importation, exportation or other disposition of Licensed Products; and (iii) any act or omission of COMPANY or any Sublicensee hereunder, including the negligence or willful misconduct thereof or breach of the Legal Compliance Obligation in Section 11.05 (Anti-Corruption Compliance). **[***]**

(b) The Parties agree that **[***]**.

(c) COMPANY will continuously carry occurrence-based liability insurance, including products liability and contractual liability, in an amount and for a time period sufficient to cover the liability assumed by COMPANY hereunder during the Term and after, such amount being **[***]**. In addition, such policy will name MAYO and its Affiliates as additional-named insureds. The minimum limits of any insurance coverage required herein shall not limit COMPANY's liability.

(d) COMPANY expressly waives any right of subrogation that it may have against MAYO Indemnitees resulting from any claim, demand, liability, judgment, settlement, costs, fees (including attorneys' fees) and expenses for which COMPANY is obligated to indemnify, defend and hold MAYO Indemnitees harmless under this Agreement.

9.06 PROHIBITION AGAINST INCONSISTENT STATEMENTS. COMPANY shall not make any statements, representations or warranties, or accept any liabilities or responsibilities whatsoever that are inconsistent with any disclaimer or limitation included in this section or any other provision of this Agreement. COMPANY shall not settle any matter that will incur liability for MAYO or require MAYO to make any admission of liability without MAYO's prior written consent.

Article 10.00 - Term and Termination

10.01 TERM. This Agreement will expire at the end of the Term, unless previously terminated under the terms of this Agreement. Contingent on COMPANY's compliance with all of its obligations under this Agreement, after expiration of COMPANY's obligation to pay Earned Royalties in accordance with Section 3.03 (Earned Royalties) of this Agreement, COMPANY shall have a fully-paid up license.

10.02 TERMINATION FOR BREACH. If COMPANY commits a material breach of this Agreement, including without limitation, the failure to make any required report, royalty or fee payments hereunder or under any research agreement or clinical trial agreement related to this Agreement, MAYO will notify COMPANY in writing of such breach and COMPANY will have [***] after such notice to cure such breach to MAYO's satisfaction. If COMPANY fails to cure such breach, MAYO may, at its sole discretion, terminate this Agreement in whole or in part by sending COMPANY written notice of termination.

10.03 TERMINATION FOR SUIT. MAYO does not license to entities that bring suit against MAYO or its Affiliates and as such, MAYO may immediately terminate this Agreement if COMPANY or any Sublicensee directly or indirectly brings any action or proceeding against MAYO or its Affiliates, except for an uncured material breach of this Agreement by MAYO.

10.04 INSOLVENCY OF COMPANY. This Agreement terminates immediately without an obligation of notice of termination to COMPANY if COMPANY ceases conducting business in the normal course, becomes insolvent or bankrupt, makes a general assignment for the benefit of creditors, admits in writing its inability to pay its debts as they are due, permits the appointment of a receiver for its business or assets or avails itself of or becomes subject to any proceeding under any statute of any governing authority relating to insolvency or the protection of rights of creditors.

10.05 SURVIVAL. The termination or expiration of this Agreement does not relieve either Party of its rights and obligations that have previously accrued. After the Term or upon earlier termination of this Agreement, all rights granted by MAYO herein shall immediately revert to MAYO and any license granted shall terminate. Upon expiration or termination of this Agreement, all Confidential Information of a Party shall be returned or destruction certified, at the disclosing Party's election. Rights and obligations that by their nature prescribe continuing rights and obligations shall survive the termination or expiration of this Agreement including Sections 4.02 (Accounting), 9.05 (Indemnification and Insurance), 10.05 (Survival), and Articles 7 (Use of Name), 8 (Confidentiality), and 11 (General Provisions). COMPANY, on behalf of itself and any of its Sublicensees, shall provide an accounting for and pay, within [***] of termination or expiration, all amounts due hereunder.

Article 11.00 - General Provisions

11.01 AMENDMENTS. This Agreement may not be amended or modified except by a writing signed by both Parties and identified as an amendment to this Agreement.

11.02 CONSTRUCTION. Each Party acknowledges that it was provided an opportunity to seek advice of counsel and as such this Agreement shall not be construed for or against either Party.

11.03 ENTIRE AGREEMENT. This Agreement constitutes the final, complete and exclusive agreement between the Parties with respect to its subject matter and supersedes all past and contemporaneous agreements, promises, and understandings, whether oral or written, between the Parties.

11.04 EXPORT CONTROL. The Parties agree not to use or otherwise export or re-export anything exchanged or transferred between them pursuant to this agreement except as authorized by United States law and the laws of the jurisdiction in which it was obtained. In particular, but without limitation, items exchanged may not be exported or re-exported (a) into any U.S. embargoed countries or (b) to anyone on the U.S. Treasury Department's list of Specially Designated Nationals or the U.S. Department of Commerce Denied Person's List or Entity List. By entering into this Agreement, each Party represents and warrants that they are not located in any such country or on any such list. Each Party also agrees that they will not use any item exchanged for any purposes prohibited by United States law, including, without limitation, the development, design, manufacture or production of missiles, or nuclear, chemical or biological weapons. If either Party becomes aware of any suspected violations of this paragraph that Party will promptly inform the other Party of such suspected violations, and cooperate with one another in any subsequent investigation and defense, be they civil or criminal.

11.05 ANTI-CORRUPTION COMPLIANCE. The Parties, their Affiliates, and any Sublicensee, shall conduct themselves in an ethical, lawful, businesslike, and professional manner in their performance of this Agreement and shall comply with all applicable laws, regulations, and directives that may apply to them in the United States or elsewhere in performance of this Agreement. Without limiting the foregoing and for the avoidance of doubt, COMPANY, its Affiliates, or any Sublicensee, shall obey all applicable laws or regulations any applicable jurisdictions and shall also obey the U.S. Foreign Corrupt Practices Act ("FCPA") (15 USC §§ 78dd-1, et seq.) and any similar applicable anti-bribery provisions, laws or regulations (collectively, the "Legal Compliance Obligation"). Each Party shall reasonably assist the other Party to assure such compliance at all times during the term of this Agreement. COMPANY's, its Affiliates', or any Sublicensee's failure to adhere to the Legal Compliance Obligation in this section shall be grounds for MAYO to terminate this Agreement immediately for cause.

11.06 GOVERNING LAW AND JURISDICTION. This Agreement is made and performed in Minnesota. The terms and conditions of this Agreement, as well as all disputes arising under or relating to this Agreement, shall be governed by Minnesota law, specifically excluding its choice-of-law principles, except that the interpretation, validity and enforceability of the Patent Rights and Foreground Patent Rights will be governed by the patent laws of the country in which the patent application is pending or issued. This is not an Agreement for the sale of goods and as such Article 2 of the Uniform Commercial Code as enacted in Minnesota does not apply. The exclusive fora for the foregoing are state courts located in Olmsted County, Minnesota, or the federal court for the District of Minnesota unless such action cannot by law be brought in such forum, in which case the venue required by law shall govern. COMPANY agrees unconditionally that it is personally subject to the jurisdiction of such courts.

11.07 HEADINGS. The headings of articles and sections used in this document are for convenience of reference only.

11.08 INDEPENDENT CONTRACTORS. It is mutually understood and agreed that the relationship between the Parties is that of independent contractors. Neither Party is the agent, employee, or servant of the other. Except as specifically set forth herein, neither Party shall have nor exercise any control or direction over the methods by which the other Party performs work or obligations under this Agreement. Further, nothing in this Agreement is intended to create any partnership, joint venture, lease, or equity relationship, expressly or by implication, between the Parties.

11.09 INDUCEMENT OF REFERRALS. It is not the purpose of this Agreement or the intent of the Parties to induce or encourage the referral of patients, and there is no requirement under this Agreement or under any other Agreement between the Parties that COMPANY or its staff refer patients to MAYO for products or services. No payment made under this Agreement is made in return for the referral of patients, or is made in return for the purchasing, leasing, or ordering of any products or services.

11.10 LIMITATION OF RIGHTS CREATED. This Agreement is personal to the Parties and shall be binding on and inure to the sole benefit of the Parties and their permitted successors and assigns and shall not be construed as conferring any rights to any third party. Specifically, no interests are intended to be created for any customer, patient, research subjects, or other persons (or their relatives, heirs, dependents, or personal representatives) by or upon whom the Licensed Products may be used.

11.11 NO ASSIGNMENT. Neither Party may assign its rights hereunder to any third party without the prior written consent of the other Party; provided, that a Party may assign its rights without the prior written consent of the other Party to any affiliate or other entity that controls, is controlled by or is under common control with such Party; and further provided that such consent will not be unreasonably withheld. Any purported assignment in violation of this clause is void. Such written consent, if given, shall not in any manner relieve the assignor from liability for the performance of this Agreement by its assignee.

11.12 NOTICES. All notices and other business communications between the Parties related to this Agreement shall be in writing, sent by certified mail, addressed as follows:

To MAYO: Mayo Foundation for Medical Education and Research
Mayo Clinic Ventures – BB4
200 First Street SW
Rochester, Minnesota 55905-0001
Attn: Ventures Operations
Phone: **[***]**
Facsimile: **[***]**
Email: **[***]**
Fed Tax ID: **[***]**

Financial Related Notices: **[***]**

To Viewpoint Molecular Targeting, Inc. dba Perspective Therapeutics:
Fed Tax ID: **[***]**

Legal Contact:
Viewpoint Molecular Targeting, Inc. Dba Perspective Therapeutics
Attn: Legal Department
2500 Crosspark Road, E116
Coralville, IA 52241
Phone: **[***]**
Email: **[***]**

Invoicing Contact:
Viewpoint Molecular Targeting, Inc. Dba Perspective Therapeutics
Attn: Finance Department

500 Crosspark Road, E116
Coralville, IA 52241
Phone: **[***]**
Email: **[***]**

Any notices required or permitted under this Agreement will be in writing, will specifically refer to this Agreement, and will be sent by hand, recognized national overnight courier, email, or certified mail, postage prepaid, return receipt requested, to the addresses set forth herein. Notices sent by certified mail shall be deemed delivered on the third day following the date of mailing. Either Party may change its address or facsimile number by giving written notice in compliance with this section.

11.13 REGISTRATION OF LICENSES. COMPANY will register and give required notice concerning this Agreement, at its expense, in each country in the Territory where an obligation under law exists to so register or give notice.

11.14 RESEARCH AND CLINICAL TRIALS. The Parties acknowledge that any COMPANY-sponsored research or clinical trial at MAYO related to this Agreement will be subject to a separate agreement consisting of a defined protocol, associated budget, and any terms and conditions that may be required by law or MAYO policy, but will be governed by the intellectual property provisions of this Agreement.

11.15 SEVERABILITY. If any provision of this Agreement is held to be invalid or unenforceable, the remainder of this Agreement shall remain in full force and effect as if the invalid or unenforceable provision had never been a part of the Agreement.

11.16 WAIVER. The failure of either Party to complain of any default by the other Party or to enforce any of such Party's rights, no matter how long such failure may continue, will not constitute a waiver of the Party's rights under this Agreement. The waiver by either Party of any breach of any provision of this Agreement shall not be construed as a waiver of any subsequent breach of the same or any other provision. No part of this Agreement may be waived except by the further written agreement of the Parties.

This Agreement may be executed in any number of counterparts which, when taken together, will constitute an original, and photocopy, facsimile, electronic or other copies shall have the same effect for all purposes as an ink-signed original. Each Party hereto consents to be bound by photocopy, facsimile, or electronic signatures of such Party's authorized representative hereto.

Mayo Foundation for Medical Education and Research

By /s/ Julie A. Henry
Name: Julie A. Henry
Title: Chair, Business Development

Date: December 31, 2023

Perspective Therapeutics, Inc.

By /s/ Johan T. Spoor
Name: Johan T. Spoor
Title: Chief Executive Officer

Date: December 31, 2023

Exhibit A
Development Plan

[***]

Exhibit 21.1

Subsidiaries of the Company

Isoray Medical, Inc., a Delaware corporation
Isoray International, LLC, a Washington limited liability company
Viewpoint Molecular Targeting, Inc. a Delaware corporation
Perspective Therapeutics Pty Ltd, an Australian Company

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We hereby consent to the incorporation by reference in the Registration Statements on Form S-1 (File No. 333-227909), Form S-3 (File No. 333-275638) and Form S-8 (File Nos. 333-136728, 333-127717, 333-218853, 333-236024, 333-262413 and 333-273796) of Perspective Therapeutics, Inc. and its subsidiaries of our report dated March 28, 2024, relating to the consolidated financial statements which appears in this Form 10-K.

/s/ Assure CPA, LLC

Spokane, Washington
March 28, 2024

Exhibit 31.1

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Johan (Thijs) Spoor, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2023, of Perspective Therapeutics, 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: March 28, 2024

/s/ Johan (Thijs) Spoor
Johan (Thijs) Spoor
Chief Executive Officer

Exhibit 31.2

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Jonathan Hunt, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2023, of Perspective Therapeutics, 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: March 28, 2024

/s/ Jonathan Hunt
Jonathan Hunt
Chief Financial Officer
Co-Principal Financial Officer

Exhibit 31.3

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Mark J. Austin, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2023, Perspective Therapeutics, 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: March 28, 2024

/s/ Mark J. Austin
Mark J. Austin
Vice President of Finance and Corporate Controller
Co-Principal Financial and Principal Accounting Officer
Corporate Secretary

Exhibit 32.1

CERTIFICATIONS PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to 18 U.S.C. § 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, each of the undersigned officers of Perspective Therapeutics, Inc., a Delaware corporation (the "Company"), hereby certifies that, in connection with the Annual Report of the Company on Form 10-K for the period ended December 31, 2023, as filed with the Securities and Exchange Commission on the date hereof (the "Report"):

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

Dated: March 28, 2024

/s/ Johan (Thijs) Spoor
JOHAN (THIJS) SPOOR
CHIEF EXECUTIVE OFFICER
(Principal Executive Officer)

Dated: March 28, 2024

/s/ Jonathan Hunt
JONATHAN HUNT
CHIEF FINANCIAL OFFICER
(Co-Principal Financial Officer)

Dated: March 28, 2024

/s/ Mark J. Austin
MARK J. AUSTIN
VICE PRESIDENT OF FINANCE AND CORPORATE CONTROLLER, CORPORATE SECRETARY
(Co-Principal Financial and Principal Accounting Officer)

This certification accompanies the Report to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any of the Company's filings 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 Report), irrespective of any general incorporation language contained in such filing.

Exhibit 97

PERSPECTIVE THERAPEUTICS, INC.
Incentive Compensation Recovery Policy

Adopted by the Board of Directors (the "Board") of Perspective Therapeutics, Inc. (the "Company") on November 15, 2023

The Company is committed to conducting business in accordance with the highest ethical and legal standards, and the Board believes that a culture that emphasizes integrity and accountability is in the best interests of the Company and its stockholders and essential to the Company's success. The Board is therefore adopting this Incentive Compensation Recovery Policy (this "Policy") to provide for the recovery of certain incentive compensation in the event of an Accounting Restatement. This Policy is intended to foster a culture of compliance and accountability, to reward integrity, and to reinforce the Company's pay-for-performance compensation philosophy.

Statement of Policy

In the event that the Company is required to prepare an Accounting Restatement, except as otherwise set forth in this Policy, the Company shall recover, reasonably promptly, the Excess Incentive Compensation received by any Covered Executive during the Recoupment Period.

This Policy applies to all Incentive Compensation received during the Recoupment Period by a person (a) after beginning service as a Covered Executive, (b) who served as a Covered Executive at any time during the performance period for that Incentive Compensation and (c) while the Company has a class of securities listed on the New York Stock Exchange ("NYSE") or another national securities exchange or association. This Policy may therefore apply to a Covered Executive even after that person is no longer a Company employee or a Covered Executive at the time of recovery.

Incentive Compensation is deemed "received" for purposes of this Policy in the fiscal period during which the financial reporting measure specified in the Incentive Compensation award is attained, even if the payment or issuance of such Incentive Compensation occurs after the end of that period. For example, if the performance target for an award is based on total stockholder return or revenue for the year ended December 31, 2023, the award will be deemed to have been received in 2023 even if paid in 2024.

Exceptions

The Company is not required to recover Excess Incentive Compensation pursuant to this Policy to the extent the Compensation Committee of the Board (the "Committee") makes a determination that recovery would be impracticable for one of the following reasons (and the applicable procedural requirements are met):

(a) after making a reasonable and documented attempt to recover the Excess Incentive Compensation, which documentation will be provided to NYSE to the extent required, the Committee determines that the direct expenses that would be paid to a third party to assist in enforcing this Policy would exceed the amount to be recovered; or

(b) the Committee determines that 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.

Definitions

"*Accounting Restatement*" means 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 the avoidance of doubt, a restatement resulting solely from any one or more of the following is not an Accounting Restatement: retrospective application of a change in generally accepted accounting principles; retrospective revision to reportable segment information due to a change in the structure of an issuer's internal organization; retrospective reclassification due to a discontinued operation; retrospective application of a change in reporting entity, such as from a reorganization of entities under common control; retrospective adjustment to provisional amounts in connection with a prior business combination; and retrospective revision for stock splits, reverse stock splits, stock dividends or other changes in capital structure.

"*Covered Executive*" means the Company's Chief Executive Officer, President, Chief Financial Officer, principal accounting officer (or if there is no such accounting officer, the controller), any vice-president of the Company in charge of a principal business unit, division, or function, any other officer who performs a policy-making function for the Company, any other person who performs similar policy-making functions for the Company, and any other employee who may from time to time be deemed subject to this Policy by the Committee. For purposes of the foregoing, designation by the Board as an "Officer" for purposes of Rule 16a-1(f) under the Securities Exchange Act of 1934, as amended (the "Exchange Act") shall constitute designation as a Covered Executive.

"*Excess Incentive Compensation*" means the amount of Incentive Compensation received during the Recoupment Period by any Covered Executive that exceeds the amount of Incentive Compensation that otherwise would have been received by such Covered Executive if the determination of the Incentive Compensation to be received had been determined based on restated amounts in the Accounting Restatement and without regard to any taxes paid.

"*Incentive Compensation*" means any compensation (including cash and equity compensation) that is granted, earned, or vested based wholly or in part upon the attainment of a financial reporting measure. For purposes of this definition, a "*financial reporting measure*" is (i) any measure that is determined and presented in accordance with the accounting principles used in preparing the Company's financial statements and any measure derived wholly or in part from such measures, or (ii) the Company's stock price and/or total shareholder return. A financial reporting measure need not be presented within the financial statements or included in a filing with the U.S. Securities and Exchange Commission. Incentive Compensation subject to this Policy may be provided by the Company or subsidiaries or affiliates of the Company ("Company Affiliates").

"*Recoupment Period*" means the three completed fiscal years preceding the Trigger Date, and any transition period (that results from a change in the Company's fiscal year) of less than nine months within or immediately following those three completed fiscal years, provided that any transition period of nine months or more shall count as a full fiscal year.

"*Trigger Date*" means the earlier to occur of: (a) the date the Board, the Audit Committee of the Board (or such other committee of the Board as may be authorized to make such a conclusion), or the officer or officers of the Company authorized to take such action if action by the Board is not required concludes, or reasonably should have concluded, that the Company is required to prepare an Accounting Restatement; and (b) the date a court, regulator, or other legally authorized body directs the Company to prepare an Accounting Restatement; in the case of both (a) and (b) regardless of if or when restated financial statements are filed.

Administration

This Policy is intended to comply with Section 303A.14 of the NYSE Listed Company Manual, Section 10D of the Exchange Act, and Rule 10D-1(b)(1) as promulgated under the Exchange Act, and shall be interpreted in a manner consistent with those requirements. The Committee has full authority to interpret and administer this Policy. The Committee's determinations under this Policy shall be final and binding on all persons, need not be uniform with respect to each individual covered by the Policy, and shall be given the maximum deference permitted by law.

The Committee has the authority to determine the appropriate means of recovering Excess Incentive Compensation based on the particular facts and circumstances, which could include, but is not limited to, seeking direct reimbursement, forfeiture of awards, offsets against other payments, and forfeiture of deferred compensation (subject to compliance with Section 409A of the Internal Revenue Code).

Subject to any limitations under applicable law, the Committee may authorize any officer or employee of the Company to take actions necessary or appropriate to carry out the purpose and intent of this Policy, provided that no such authorization shall relate to any recovery under this Policy that involves such officer or employee.

If the Committee cannot determine the amount of excess Incentive Compensation received by a Covered Executive directly from the information in the Accounting Restatement, such as in the case of Incentive Compensation tied to stock price or total stockholder return, then it shall make its determination based on its reasonable estimate of the effect of the Accounting Restatement and shall maintain documentation of such determination, including for purposes of providing such documentation to NYSE.

Except where an action is required by Section 303A.14 of the NYSE Listed Company Manual, Section 10D of the Exchange Act or Rule 10D-1(b)(1) promulgated under the Exchange Act to be determined in a different matter, the Board may act to have the independent directors of the Board administer this Policy in place of the Committee in any particular circumstance.

Each Covered Executive shall sign an Incentive Compensation Recovery Policy Acknowledgment and Agreement in the form attached to this Policy as Exhibit A or such other form as approved by the Committee in its sole discretion.

No Indemnification or Advancement of Legal Fees

Notwithstanding the terms of any indemnification agreement, insurance policy, contractual arrangement, the governing documents of the Company or other document or arrangement, the Company shall not indemnify any Covered Executive against, or pay the premiums for any insurance policy to cover, any amounts recovered under this Policy or any expenses that a Covered Executive incurs in opposing Company efforts to recoup amounts pursuant to the Policy.

Non-Exclusive Remedy; Successors

Recovery of Incentive Compensation pursuant to this Policy shall not in any way limit or affect the rights of the Company to pursue disciplinary, legal, or other action or pursue any other remedies available to it. This Policy shall be in addition to, and is not intended to limit, any rights of the Company to recover Incentive Compensation from Covered Executives under any legal remedy available to the Company and applicable laws and regulations, including but not limited to the Sarbanes-Oxley Act of 2002, as amended, or pursuant to the terms of any other Company policy, employment agreement, equity award agreement, or similar agreement with a Covered Executive.

This Policy shall be binding and enforceable against all Covered Executives and their successors, beneficiaries, heirs, executors, administrators, or other legal representatives.

Amendment

This Policy may be amended from time to time by the Committee of the Board.

Effective Date

This Policy is adopted as of November 15, 2023 and shall apply to any Incentive Compensation received on or after October 2, 2023.

EXHIBIT A

PERSPECTIVE THERAPEUTICS, INC.
INCENTIVE COMPENSATION RECOVERY POLICY
ACKNOWLEDGMENT AND AGREEMENT

This Acknowledgment and Agreement (this "Agreement") is entered into as of the __ day of _____, 20[__], between Perspective Therapeutics, Inc., a Delaware corporation (the "Company"), and_____(the "Executive"), under the following circumstances:

WHEREAS, the Board of Directors of the Company (the "Board") has adopted the Perspective Therapeutics, Inc. Incentive Compensation Recovery Policy (the "Policy");

WHEREAS, the Executive has been designated as a "Covered Executive" of the Company as defined in the Policy;

WHEREAS, in consideration of, and as a condition to the receipt of, future cash and equity-based awards, performance-based compensation, and other forms of cash or equity compensation made under the Company's 2017 Equity Incentive Plan (as amended from time to time), 2020 Equity Incentive Plan (as amended from time to time) or any other incentive compensation plan or program of the Company, the Executive and the Company are entering into this Agreement; and

WHEREAS, defined terms used but not defined in this Agreement shall have the meanings set forth in the Policy.

NOW, THEREFORE, the Company and the Executive hereby agree as follows:

1. The Executive hereby acknowledges receipt of the Policy, to which this Agreement is attached, and the terms of which are hereby incorporated into this Agreement by reference. The Executive has read and understands the Policy and has had the opportunity to ask questions to the Company regarding the Policy.

2. The Executive hereby acknowledges and agrees that the Policy shall apply to any Incentive Compensation granted to the Executive by the Board or the Compensation Committee of the Board (the "Committee") as set forth in the Policy and that all such Incentive Compensation shall be subject to recovery under the Policy.

3. Any applicable award agreement or other document setting forth the terms and conditions of any Incentive Compensation granted to the Executive by the Board or the Committee shall be deemed to include the restrictions imposed by the Policy and incorporate the Policy by reference. In the event of any inconsistency between the provisions of the Policy and the applicable award agreement or other document setting forth the terms and conditions of any Incentive Compensation granted to the Executive, the terms of the Policy shall govern unless the terms of such other agreement or other document would result in a greater recovery by the Company.

4. The Executive hereby acknowledges that, notwithstanding any indemnification agreement or other arrangement between the Company and the Executive, the Company shall not indemnify the Executive against, or pay the premiums for any insurance policy to cover, losses incurred under the Policy.

5. In the event it is determined by the Company that any amounts granted, awarded, earned or paid to the Executive must be forfeited or reimbursed to the Company, the Executive will promptly take any action necessary to effectuate such forfeiture and/or reimbursement.

6. This Agreement and the Policy shall survive and continue in full force and in accordance with their terms notwithstanding any termination of the Executive's employment with the Company and its affiliates.

7. This Agreement may be executed in two or more counterparts, and by facsimile or electronic transmission (such as PDF), each of which will be deemed to be an original but all of which, taken together, shall constitute one and the same Agreement.

8. This Agreement shall be governed by the laws of the State of Delaware, without reference to principles of conflict of laws.

9. No modifications or amendments of the terms of this Agreement shall be effective unless in writing and signed by the parties hereto or their respective duly authorized agents. The provisions of this Agreement shall inure to the benefit of, and be binding upon, the successors, administrators, heirs, legal representatives and assigns of the Executive, and the successors and assigns of the Company.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

PERSPECTIVE THERAPEUTICS, INC.

By: _____

Name:
Title:

[EXECUTIVE]

_____

Name:
Title: