Trickle Research

Every raging river, every great lake, every deep blue sea starts … with a trickle

Initiating Research Coverage

Perspective Therapeutics, Inc.

(NYSE American: CATX)

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Disclosure: Portions of this report are excerpted from Perspective's filings, website(s), presentations or other public collateral. We have attempted to identify those excerpts by *italicizing* them in the text.

Company Overview

Perspective Therapeutics, Inc., ("Perspective", the "Company" or "CATX") is a diversified medical technology and radiopharmaceutical company that is pioneering advanced treatment applications for cancers throughout the body. The Company has a proprietary technology that utilizes the alpha emitting isotope Lead-212 to deliver powerful radiation specifically to cancer cells via specialized targeting peptides. The Company is also developing complementary imaging diagnostics that incorporate the same targeting peptides which provide the opportunity to personalize treatment and optimize patient outcomes. This "theranostic" approach enables the ability to see the specific tumor and then treat it to potentially improve efficacy and minimize toxicity associated with many other types of cancer treatments. Throughout this report, we refer to the Company's technology platform as "image-guided Targeted Alpha Therapies ("TAT").

The Company's melanoma (VMT01) and neuroendocrine tumor (VMT-α-NET) programs have entered Phase 1/2a imaging and therapy trials for the treatment of metastatic melanoma and neuroendocrine tumors at several leading academic institutions in the United States. The Company has also developed a proprietary Lead-212 generator to secure key isotopes for clinical trial and commercial operations.

Perspective was formed by the February 3, 2023, merger of two enterprises: publicly traded Isoray, Inc. and Viewpoint Molecular Targeting, Inc., a private company. The combined entity changed its name to Perspective Therapeutics, Inc. on February 14, 2023, and began trading under a new stock symbol, (CATX) shortly thereafter. The basis of the merger stemmed in part from two primary attributes of the associated enterprises.

First, Isoray's primary business/product involved the development and sales of Cesium-131 brachytherapy seeds. While Isoray's brachytherapy proved efficacious for the treatment of particular cancers, the applicable market was relatively small and occupied by other competing therapies. Isoray's ability to grow the business in that environment proved difficult despite having raised $45 million in 2021, ostensibly to address new markets/applications for their therapy. At the time of the aforementioned merger, Isoray held cash of approximately $36 million.

Secondly, the merger involved Viewpoint Molecular Targeting, Inc., a private company, that has been working on a novel drug delivery platform for an "*alpha emitting isotope.*" As we will delineate in the Product/Technology Overview below, Viewpoint's contribution to the merger, and the major focus of the combined entity moving forward, is the Company's research and development. Its novel targeted alpha-particle based radiotherapy both identifies and treats particular cancers. This new drug class in oncology has been termed "theranostics" to convey their dual therapeutic and diagnostic properties. This promising technology provided Isoray shareholders with a potential growth component they were not likely to get from their legacy brachytherapy product(s), while providing ViewPoint shareholders with cash (and public currency) to continue the clinical development of their technology.

Based on their National Institutes of Health-funded and peer-reviewed research and early clinical success, the Company believes their technology could ultimately provide for improved detection and treatment of various cancers. They have provided a clinical roadmap delineating their approach to achieving that end, which we have attempted to illuminate throughout this report.

Industry Overview

Generally, our industry overview involves analysis regarding market size, market growth, supply and demand nuances and other variables and associated statistical analysis aimed at framing both the magnitude and the opportunities for the relevant market(s) as well as those of the subject company within them. We are going to forgo that approach here because we think that many people are aware of the scope and the breadth of the cancer treatment market in part because unfortunately, they likely know someone (or multiple people) who has been adversely impacted by it. Succinctly, unfortunately the cancer therapy market is growing as are the costs associated with it, and that does not look like a scenario that will change anytime soon. Again, we do not think that requires much reinforcement. However, for perspective, industry estimates collectively estimate that the global oncology treatment market is currently in the $200+ billion range and is expected to grow at a CAGR of 8% to 10% suggesting that over the next decade that market could approach or exceed $500 billion. The numbers are, unfortunately, staggering.

The above noted, cancer is also a bit of a generic term. For instance, according to The National Center for Biotechnology Information ("NCBI") (https://www.ncbi.nlm.nih.gov/books/NBK20362/). *"…Cancer is a group of more than 100 diseases that develop across time and involve the uncontrolled division of the body's cells. Although cancer can develop in virtually any of the body's tissues, and each type of cancer has its unique features, the basic processes that produce cancer are quite similar in all forms of the disease. Cancer begins when a cell breaks free from the normal restraints on cell division and begins to follow its own agenda for proliferation. All of the cells produced by division of this first, ancestral cell and its progeny also display inappropriate proliferation. A tumor, or mass of cells, formed of these abnormal cells may remain within the tissue in which it originated (a condition called in situ cancer), or it may begin to invade nearby tissues (a condition called invasive cancer). An invasive tumor is said to be malignant, and cells shed into the blood or lymph from a malignant tumor are likely to establish new tumors (metastases) throughout the body. Tumors threaten an individual's life when their growth disrupts the tissues and organs needed for survival"*.

While most "cancers" certainly share some general characteristics, they also carry unique properties that make them different, which ultimately means that the effective treatment of specific cancers requires equally specific therapies designed to address the particular indications of those individual cancers. In that regard, we think it is fair to say that for researchers to develop specific treatments for specific cancers, they first must understand the different origins, mechanisms and characteristics of each. We also think, it is fair to say that cancer research over the past few decades has provided considerable clarity with respect to the unique characteristics of different types of cancer although that process of understanding and identifying those characteristics continues today. Historically, cancer treatments have evolved around the improved understanding of the diseases it represents.

As a result of the above quest for answers to cancer, cancer research over the years has been characterized by progress as well as setbacks and therapies have included many triumphs but also several ultimately ineffective treatments and others with considerable undesirable side effects. To be sure, some cancer treatments, while effective in some instances, have been described as "worse than the cure".

Again, like medicine/science in general, cancer therapy's expanding knowledge base has led to more effective and targeted treatments. That knowledge base has evolved over decades of various treatment protocols and modifications therein. However, as the National Institutes of Health ("NIH") notes, some of the most common cancer protocols we continue to use today have been used in one form or another for decades and in some instances for over a century. Here are the (current) "4 pillars" of cancer treatment including a brief history of each:

- **Surgery.** Surgery has been a common approach to cancer treatment. Intuitively, if a patient has a tumor, the most effective way to mitigate it is to remove it if possible. *The first radical mastectomy was performed in 1890, while the first radical hysterectomy was performed in 1906.*

- **Radiation.** In addition to surgery, radiation is another (invasive) cancer therapy that continues to be widely used today but has been around for some time. As the NIH notes, *The discovery of X-rays and radiation by Becquerel and Rontgen in the late 19th century was the first step towards radiation treatment. Marie Curie's work greatly contributed to the development of radiotherapy. The first cancer case cured exclusively by radiation occurred in 1898. Surgery and radiotherapy were the basis for solid tumor treatment into the 1960s. This led to a plateau in curability rates due to uncontrolled micrometastases. There were some promising publications about the use of adjuvant chemotherapy after radiotherapy or surgery in curing patients with advanced cancer*.

- **Chemotherapy.** As the prior paragraph above eludes, while surgery and/or radiation were *the* primary therapies for some time, the increased understanding of cancer lead to the revelation that metastases was a major problem in the advance of many forms of cancer and in some instances *may be related to* invasive therapies. That understanding of the need for a more systemic approach to cancer treatment paved the way for chemotherapy. *The history of chemotherapy began in the early 20th century, but its use in treating cancer began in the 1930s. The term "chemotherapy" was coined by the German scientist Paul Ehrlich, who had a particular interest in alkylating agents and who came up with the term to describe the chemical treatment of disease. During the First and Second World Wars, it was noticed that soldiers exposed to mustard gas experienced decreased levels of leukocytes. This led to the use of nitrogen mustard as the first chemotherapy agent to treat lymphomas, a treatment used by Gilman in 1943*. *Breast cancer was the first type of disease in which positive results with adjuvant therapy were obtained, and also the first example of multimodality treatment, a strategy currently employed for treatment of numerous types of tumors.* ***In the late 1960s, the use of adjuvant chemotherapy changed the concept of localized treatment***.

- **Immunotherapy.** For the past 5 decades or more, oncologists have largely created their cancer strategies around the above "three pillars" of treatment; surgery, radiation and chemotherapy, (aka "slash, burn, and poison"). While cancer treatment has certainly advanced over the years, metastatic cancer remains insidious, still accounting for most cancer related deaths. However, we think it is fair to say that many in the cancer community would agree that immunotherapies are emerging as the "fourth pillar" in the fight against cancer. Much like the term "cancer", "immunotherapy" is a broad label that includes many emerging/promising approaches that focus on directing and regulating the body's own immune system to identify and destroy disease. There are currently a variety of modalities and associated adjuvants that fit under the immunotherapy label. Immunomodulators or "checkpoint inhibitors" like Keytruda® and Optivo®, cancer vaccines like HEPLISAV-B® and Cervarix® and monoclonal antibodies such as Avastin® and Erbitux® are just a few examples of FDA approved immunotherapies. *Immunotherapy is often perceived as a relatively recent advance. However, the first scientific attempts to modulate patients' immune systems to cure cancer can be attributed to two German physicians, Fehleisen and Busch, who independently noticed significant tumor regression after erysipelas infection. The next significant advances came from William Bradley Coley who is known today as the Father of Immunotherapy. It was Coley who first attempted to harness the immune system for treating bone cancer in 1891. His achievements were largely unnoticed for over fifty years, and several seminal discoveries in the field of Immunology, such as the existence of T cells and their crucial role in immunity in 1967, stepped up the research toward cancer immunotherapy known today.*

As the above might suggest, the major approaches used to fight cancer today are largely the same as they have been for decades. Even the most recent development of these, immunotherapies, have been around for

some time now. for instance, the first monoclonal antibody was approved in 1986 (although it was not developed to treat cancer), and several other monoclonal antibodies were developed thereafter for cancer. For instance, Genentech's monoclonal antibody Herceptin was approved by the FDA in 1998 as a combination therapy with paclitaxel chemotherapy for HER2-positive metastatic breast cancer. Thereafter, in 2011, the FDA approved the first checkpoint inhibitor ipilimumab, more commonly referred to as "Yervoy", for the treatment of melanoma. Yervoy (which is also a monoclonal antibody) blocks the immune checkpoint molecule CTLA-4 and while it is used as a monotherapy, much like Herceptin and paclitaxel, it is often used in combination with other cancer therapies. That brings us to our next point.

For a variety of reasons, combination therapies have become a growing portion of the oncology clinical trial landscape. For instance, a 2022 report from the Cancer Research Institute, Cancer Immunotherapy Clinical Trials Continue to Grow Globally, Combination Approaches Outpace Monotherapy Trials (cancerresearch.org) notes that with respect to clinical trials in conjunction with immunotherapies:

> *"… the ratio of monotherapy (single-agent) PD1/PDL1-blocking drug trials continues to decrease while the number of combination studies is on the rise, including trials testing PD1/PDL1-blocking immunotherapies in combination with other immunotherapies, targeted therapy, chemotherapies, and radiation. Planned patient enrollment in monotherapy immuno-oncology trials has been falling precipitously, a seven-fold decrease since 2014, while combination trial enrollment projections have seen less than a two-fold drop since 2015. Nearly 300 targets and pathways are being tested in clinical trials in combination with PD1/PDL1-blocking immunotherapy, an increase of 18% compared to the previous report…".*

We think this is an important notion to realize for investors looking at the pharmaceutical space, and that applies to those looking at Perspective Therapeutics as well. As we noted, there are several reasons why combination trials have increased over time, but generally, we think much of that has to do with the trial process, as well as with the existing oncology therapy landscape in general. More specifically, the emergence of immunotherapies has played a major role in (re)shaping the clinical trial environment. For instance, check point inhibitor Keytruda is among the top selling drugs in the world, generating nearly $21 billion for maker Merck & Co. in 2022. Keytruda has been approved for a variety of cancer indications and has become a cornerstone of the oncology immunotherapy pillar. Generally speaking, Keytruda has proven effective in extending the lives of cancer patients to varying degrees over various indications, and often in combination with other treatments such as chemotherapy. For perspective, that effectiveness may range from10% to upwards of 30%, which in the oncology world is quite significant. Again, that success has impacted the clinical trial process for several reasons, not the least of which is that on the face, it is difficult to see how a patient (along with their oncology professionals) would opt for participating in an unproven clinical trial without first exhausting any potential benefits they may get from proven drugs like Keytruda. As a result, many clinical trial enrollment protocols stipulate that participants first fail available standard of care therapies. Thereafter, given that we have seen some combination therapies working collectively better in conjunction than as first line monotherapy alternatives (Herceptin + paclitaxel and/or Yervoy + Optivo for instance) a trial drug in conjunction with a proven therapy is the next logical step. It is important to recognize that a combination approach is certainly a possibility in terms of Perspective's approach(s) going forward. We will speak about that further in this report.

As we alluded to above, chronologically surgery and radiation were the first two pillars of cancer treatment. However, these two approaches yielded to the realization that the development of secondary tumors ("metastasis") was the overriding concern with respect to cancer mortality. That is, while eradicating the source of the disease was certainly paramount, it may not solve the problem if the cancer has already spread to other parts of the body. Today estimates suggest that metastasis is responsible for over 90% of cancer deaths. As a result, chemotherapy and later immunotherapy, were both aimed at (also) addressing metastasis or the systemic treatment of the disease. While we think it is fair to say that the industry's collective

understanding of the causes and mechanisms of metastasis remains a work in progress, therapies to address metastasis remain at the forefront of cancer research. That said, it may beg the question, why are we so constructive on a therapy that at first glance fits into the "radiation" pillar that has not traditionally been associated with systemic benefits?

Recognize, while technically "radiation", Perspective's technology is a considerably more elegant approach than traditional radiation. We will cover some of those differences in the Technology Overview below, however, we think it is important to point out that even traditional radiation therapy has in some instances elicited favorable systemic responses that are worth covering as they are certainly a focus of Perspective's team in terms of trying to understand and perhaps harness that phenomenon. Specifically, there have been multiple cases where cancer patients were treated with radiation on a primary tumor, but subsequently experienced an "abscopal effect" on secondary tumors. From The National Cancer Institute: Investigating the Abscopal Effect as a Treatment for Cancer - NCI

"The abscopal effect occurs when radiation treatment—or another type of local therapy—not only shrinks the targeted tumor but also leads to the shrinkage of untreated tumors elsewhere in the body. Although the precise biological mechanisms responsible for the abscopal effect are still being investigated, the immune system is thought to play an important role".

"When you treat a single tumor in a patient who experiences the abscopal effect, you're waking up the immune system and enabling it to recognize other tumors in the body," said Billy W. Loo, Jr., M.D., Ph.D., a radiation oncologist at the Stanford Cancer Institute. In response to radiation, tumor cells may release material that is recognized by the immune system as a threat, potentially leading to an immune response throughout the body, explained Silvia Formenti, M.D., of Weill Cornell Medicine, whose research helped to establish a link between the abscopal effect and the immune system. The irradiated tumor can become a kind of vaccine," added Dr. Formenti. This approach to treating cancer, which can be carried out in various ways, including with radiation therapy, is called in situ vaccination".

"Abscopal responses have been documented in various types of cancer, including melanoma, breast, lung, and liver cancers. In recent years, the effect also has been reported in patients with less common cancers, such as pleural mesothelioma and cancer of the thymus".

While Perspective's technology falls into the "radiation" pillar, its strengths involve several attributes that in our view separate it from traditional radiation. More accurately, Perspective's technology is part of an emerging group of therapies referred to as "radiopharmaceuticals". Again from the National Cancer Institute: Radiopharmaceuticals Emerging as New Cancer Therapy - NCI .

Though effective, external radiation can cause collateral damage. Even with modern radiation therapy equipment, "you have to [hit] normal tissue to get to a tumor… The resulting side effects of radiation therapy depend on the area of the body treated but can include loss of taste, skin changes, hair loss, diarrhea, and sexual problems. Now, researchers are developing a new class of drugs called radiopharmaceuticals, which deliver radiation therapy directly and specifically to cancer cells. The last several years have seen an explosion of research and clinical trials testing new radiopharmaceuticals.

These studies have suggested that targeting radiation therapy at the cellular level has the potential to reduce the risk of both short-term and long-term side effects of treatment while at the same time enabling even tiny deposits of cancer cells to be killed throughout the body.

Further, from the National Center for Biotechnology Information: Radiopharmaceuticals - StatPearls - NCBI Bookshelf (nih.gov)

> *Radiopharmaceuticals include a group of radioactive agents used for either diagnostic or therapeutic interventions. Although the administration of radiopharmaceuticals is often systemic, they are likely to localize to specific tissues because of their biomolecular properties, i.e., the areas of hyperintensity observed on positron emission tomography (PET) scans that indicate a high tissue metabolic demand. Radiopharmaceuticals actively emit radiation, which makes their storage more difficult than non-radioactive pharmaceuticals. Compounds used for diagnostic interventions usually either emit beta particles (positrons or electrons) or gamma rays, while compounds that emit Auger electrons or* ***alpha particles*** *(helium nuclei) are generally for therapeutic interventions.*
>
> *Radio-imaging involves the use of incredibly low concentrations of radiotracers (sub-micro quantities). Radio-imaging is currently used to analyze tissue physiology, detect disease, and monitor treatments; however, new uses are being discovered with the advent of personalized medicine.*
>
> *Radiotherapeutic agents use the radiation emitted from the nuclide to kill the target cells or serve palliative purposes. Radiation is toxic to tissues in the body: the brain, spinal cord, kidneys, and bone marrow are especially susceptible. Many radiopharmaceuticals are delivered systemically, and this means that ideally, the pharmaceuticals should selectively prefer the tumor tissue relative to normal healthy tissue.*

Additionally, from the Society of Nuclear Medicine and Molecular Imaging: About Radiopharmaceutical Therapies - SNMMI .

> *Most radiopharmaceuticals consist of a small amount of radioactive material — called a radionuclide — combined with a cell-targeting molecule. Some radionuclides have a natural ability to hone in on specific cells or biological processes and do not need to be combined or modified. When injected into the patient's bloodstream, the radiopharmaceutical travels to and delivers radiation directly to disease sites. Because it is highly selective in its ability to damage cancerous cells while limiting radiation exposure to healthy tissue, molecular therapy is known as a targeted therapy. Molecular therapies offer promise as a vehicle for personalized treatment of cancer, because radiopharmaceuticals may potentially be tailored to the unique biologic characteristics of the patient and the molecular properties of the tumor.*

To reiterate, while radiation is one of the older approaches to cancer treatment, like the other pillars, it has advanced over time and some of that includes research into the potential systemic/abscopal effects of the therapy(s). In addition, *radiopharmaceuticals* are perhaps the "new frontier" of radiation therapy, and they represent advances in both the diagnosis as well as the treatment of various cancer indications. Further, as we have expanded upon in the Technology Overview below, Perspective's platform addresses a specific and emerging portion of radiopharmaceutical group that is focused on the use of "alpha" particles rather than more typical beta particle therapy. As we will address, the Company's research suggests that alpha particles may address some of the risks/shortcomings of more typical beta particle based procedures.

Lastly, it is perhaps incomplete to provide coverage on a pre-approval based biopharma issuer without *some* discussion about the FDA drug clinical/approval process and the nuances therein. We think that may be particularly topical to Perspective for multiple reasons. In that regard, **Table 1** below provides a visual of the phases involved in the FDA clinical process which is the precursor to new drug approvals. Looking over the graphic, we have provided a few broad bullet points that may be helpful for those who may be less familiar with the protocols.

First, prior to testing an investigational drug on humans, companies need to file an Investigational New Drug Application ("NDA"), which among other things establishes the design/protocol of the trial. The clinical trial process(s) is typically broken down into the 4 following steps:

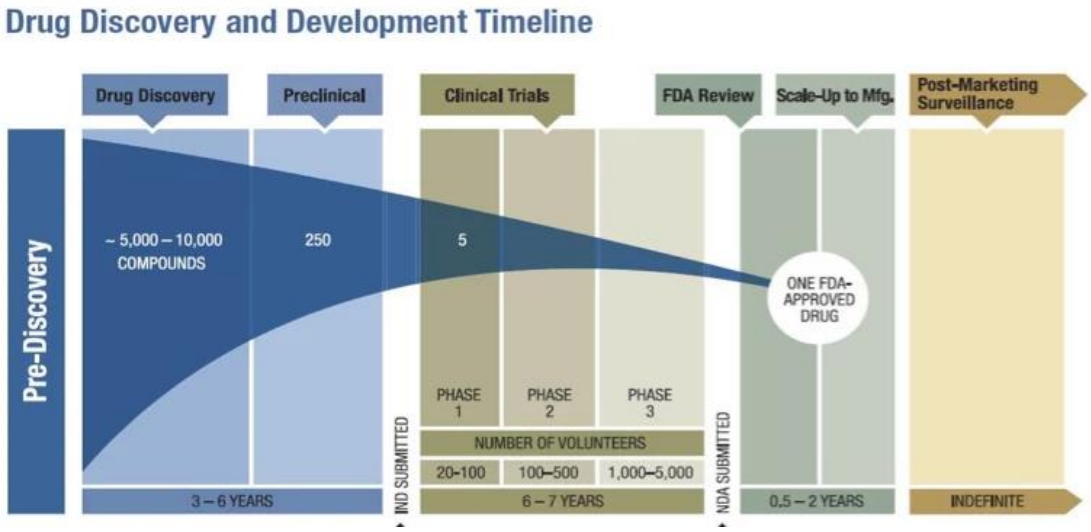
Pre-Clinical Trials - Preclinical trials are largely animal trials that attempt to determine the initial safety and efficacy of drugs. As Table 1. below reflects, there are many (5,000 to 10,000) compounds that are considered in the discovery phase, but only a small portion of those (250 or less than 1%) actually make it to pre-clinical animal studies. Moreover, the time frame from discovery to a Phase 1 clinical Trial is approximately 3 to 6 years.

Phase 1 Clinical Trials – Phase 1 clinical trials are largely safety trials and as Table 1. reflects, these are relatively small in terms of the number of volunteers, but unlike preclinical trials, Phase 1 does involve human volunteers. Phase 1 trials also typically include dosing iterations to try to determine the optimal dosage required to deliver the best results while minimizing side effects. That said, Phase 1 trials often provide some insights into efficacy as well, which beyond establishing a reasonable safety profile (which not all do) may also provide additional support to proceed to Phase 2.

Phase 2 Clinical Trials - In Phase 2, researchers are attempting to determine the efficacy of their drug and that includes its efficacy *relative to existing standards of care*. Recognize, these trials are designed around considerable input (requirements) from the FDA, and that includes specific enrollment criteria for volunteers as well as thresholds of success established by the trial design. Success in a Phase 2 trial generally indicates that the drug has demonstrated efficacy that would merit continuation of the trial to Phase 3.

Phase 3 Clinical Trials – Inasmuch as success in a Phase 2 Trial is (positively) telling, Phase 3 trials typically include even more acute thresholds for success and perhaps more importantly a bigger sample size to better establish statistically significant results as defined by the trial protocols. Positive Phase 3 results lead to the filing of a New Drug Approval (NDA), and ultimately a commercial drug.

Table 1.



FDA's Expedited Review Process: The Need for Speed (appliedclinicaltrialsonline.com)

While the above represents the normal track to and FDA approval of a new drug, over the years, the FDA and/or applicable laws provide some additional exemptions to the approval process that are aimed at diseases for which no predicate therapy exists, or, for diseases that have advanced beyond the point where existing

therapies can provide any foreseeable benefit. In the case of oncology, that might include investigational drugs that may be able to help patients who have failed multiple rounds of standard therapies. Here are some of the exceptions provided for the use of drugs that are not (yet) FDA approved:

- **Expanded Access/Compassionate Use** - (Expanded Access | FDA) *Sometimes called "compassionate use", expanded access is a potential pathway for a patient with a serious or immediately life-threatening disease or condition to gain access to an investigational medical product (drug, biologic, or medical device) for treatment outside of clinical trials when no comparable or satisfactory alternative therapy options are available.*

Expanded access may be appropriate when all the following apply:

- *Patient has a serious or immediately life-threatening disease or condition.*
- *There is no comparable or satisfactory alternative therapy to diagnose, monitor, or treat the disease or condition.*
- *Patient enrollment in a clinical trial is not possible.*
- *Potential patient benefit justifies the potential risks of treatment.*
- *Providing the investigational medical product will not interfere with investigational trials that could support a medical product's development or marketing approval for the treatment indication.*
- *Investigational drugs, biologics or medical devices have not yet been approved or cleared by FDA and FDA has not found these products to be safe and effective for their specific use. Furthermore, the investigational medical product may, or may not, be effective in the treatment of the condition, and use of the product may cause unexpected serious side effects.*

- **Fast Track Designation** - (Fast Track | FDA) *Fast track is a process designed to facilitate the development, and expedite the review of drugs to treat serious conditions and fill an unmet medical need. The purpose is to get important new drugs to the patient earlier. Fast Track addresses a broad range of serious conditions.*

Determining whether a condition is serious is a matter of judgment, but generally is based on whether the drug will have an impact on such factors as survival, day-to-day functioning, or the likelihood that the condition, if left untreated, will progress from a less severe condition to a more serious one. AIDS, Alzheimer's, heart failure and cancer are obvious examples of serious conditions. However, diseases such as epilepsy, depression and diabetes are also considered to be serious conditions.

Filling an unmet medical need is defined as providing a therapy where none exists or providing a therapy which may be potentially better than available therapy.

- **Right to Try** - *Right to Try is one pathway for patients diagnosed with life-threatening diseases or conditions who have exhausted all approved treatment options and are unable to participate in a clinical trial to access certain drugs that have not been approved by the Food and Drug Administration (FDA). Right to Try allows eligible patients to request access to certain investigational drugs (including biologics) that have not yet been approved by the FDA.*

Under Right to Try, patients and their doctors work with a company that is developing a drug or biologic to request access without involving FDA in the process. The FDA does not review or approve Right to Try requests. Patients who are eligible under the Right to Try Act meet the following criteria:

- *You have a life-threatening disease or condition.*

- *You have exhausted approved treatment options and are unable to participate in a clinical trial involving the drug or biologic, as certified by your doctor.*
- *You (or your legally authorized representative) have given written informed consent to the doctor regarding the investigational drug.*

To summarize the above Industry Overview, especially as it relates to Perspective, consider the following.

Cancer is a growing problem across the globe and as result cancer research has attempted to keep up with the disease(s). By extension, industry estimates suggest the cancer treatment industry could approach $500 billion over the next decade as both the need/demand for treatment, including new/better treatments driven by research continue to grow.

Despite continued advancements, much of the cancer treatment that is administered today is an extension of technologies that have been around for decades, including surgery, radiation, chemotherapy, and more recently immunotherapy. However, given that most cancer deaths result from the spread of the disease, most of the new research and development around cancer has focused on therapies that are able to address its systemic metastasis. In that regard, while Perspective's technology is technically "radiation", as we will attempt to illustrate further in this report, the Company's believes its alpha particle radiopharmaceutical technology may provide marked advantages over traditional radiation therapy, including perhaps abscopal affects that may mitigate metastasis. Further, the Company's technology platform also provides a diagnostic iteration that could improve both the detection of cancer throughout the body and by extension help determine the best approach to addressing it. In addition, the Company also believes that their platform may have opportunities in both monotherapy and combination approaches.

The FDA process for approving new drugs is rigorous, time consuming and expensive, and the overwhelming majority of compounds that start in pre-discovery ultimately fail in one phase of development or another. On the other hand, the FDA and/or applicable laws, do provide some exceptions that in some instances, may shorten the rigor, time and money generally required to achieve an approval. As we will also delineate below, Perspective's radiopharmaceutical platform has already garnered some of these exemptions. For instance, we know that Perspective has treated patients in India under compassionate use and we will address some of those results below. In addition, because of positive clinical data, we know that the Company's first product candidate, VMT-α-NET, was *"awarded Fast Track designation under the FDA's expedited development program"*. Again, we think the Company's access to these programs is validating.

Technology/Product Overview

While we have broadly placed Perspective's technology within the radiation cancer therapy pillar, we have also tried to delineate that it really belongs in the "radiopharmaceutical" therapy and diagnosis group, which includes several emerging technologies that may represent a new frontier in cancer diagnosis and therapy. That noted, perhaps some industry definition might be helpful. From Radiopharmaceutical therapy in cancer: clinical advances and challenges Nature Reviews Drug Discovery: Radiopharmaceutical therapy in cancer: clinical advances and challenges - PubMed (nih.gov)

"Radiopharmaceutical therapy (RPT) is defined by the delivery of radioactive atoms to tumor-associated targets. RPT is a novel therapeutic modality for the treatment of cancer, providing several advantages over existing therapeutic approaches. Unlike radiotherapy, the radiation is not administered from outside the body, but instead is delivered systemically or locoregionally, akin to chemotherapy or biologically targeted therapy. The cytotoxic radiation is delivered to cancer cells or to their microenvironment either directly or, more typically, using delivery vehicles that either bind

specifically to endogenous targets or accumulate by a wide variety of physiological mechanisms characteristic of neoplasia, enabling a targeted therapeutic approach. Unlike biologic therapy, it is far less dependent on an understanding of signaling pathways and on identifying agents that interrupt the putative cancer phenotype-driving pathway (or pathways)".

"Radiopharmaceutical therapy (RPT) is emerging as a safe and effective targeted approach to treating many types of cancer. Almost all radionuclides used in RPT emit photons that can be imaged, enabling non-invasive visualization of the biodistribution of the therapeutic agent. Compared with almost all other systemic cancer treatment options, RPT has shown efficacy with minimal toxicity. With the recent FDA approval of several RPT agents, the remarkable potential of this treatment is now being recognized".

As further delineation, Perspective's research focuses on using specific alpha-particles as opposed to typical beta particles for both diagnosis and treatment. From the Company's collateral:

Theranostics enable the ability to see a specific tumor and then treat it.

Using proprietary, specialized targeting peptides, we are able to diagnose and then deliver our powerful alpha-particle radiotherapy directly to the tumor. Utilizing a radioactive imaging agent, Pb-203, connected to a specific targeting peptide, we have the ability to diagnose the tumor. Following diagnosis, we link our alpha-particle radioactive isotope, Pb-212, to the same targeting peptide to treat and potentially kill the tumor. This two-step, personalized medicine approach offers the ability to understand which patients may respond to our therapy and potentially improve efficacy while minimizing toxicity associated with many other types of cancer treatments.

Our leading Pb-212-based alpha-particle radiotherapies are designed to deliver powerful alpha radiation specifically to cancer cells utilizing specialized targeting peptides. Perspective Therapeutics is also developing complementary imaging diagnostics that utilize the same targeting peptide for the purpose of personalizing treatment and optimizing patient outcomes. This theranostic approach enables the ability to see the specific tumor and then treat it to potentially improve efficacy and minimize toxicity associated with many other types of cancer treatments.

Given the above backdrop, it may be helpful to understand some of Perspective's history around their alpha particle technology, which dates to the aforementioned merger and Viewpoint Molecular Targeting Inc.

Viewpoint was founded in 2013 by Perspective's Chief Science Officer, Michael Schultz PhD, and Frances Johnson MD, Perspective's Chief Innovation Officer. Dr. Schultz is the inventor of the Company's TAT platform. In conjunction with their tenures as professors, and over a period of 15 years, the two founders have developed a robust radiopharmaceutical research discipline through/with the University of Iowa and University of Iowa Hospital. In 2019 Viewpoint raised $14 million through an "A" round, however, prior to and following that raise they have been able to attract nearly $18 in NIH grants that helped support and advance the research. **Table 2.** below summarizes those grants, which in our view provide some validation of the platform's potential. We would add, we believe the Company's collaborations (and associated licensing arrangements) with the University of Iowa and University of Iowa Hospital, as well as the University of Iowa Research Foundation ("UIRF") provide numerous benefits to Perspective and its clinical endeavors.

Table 2.

Grants and Awards

Viewpoint'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 products.

Viewpoint 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, Viewpoint's co-founder and Chief Scientific Officer, Frances L. Johnson, MD, Viewpoint's co-founder and Chief Operating Officer, and to Viewpoint'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 II *	$2,000,000	Schultz	Image-guided dosimetry-based alpha particle therapy for neuroblastoma
Sept. 2022	SBIR Phase II *	$2,000,000	Schultz	Combining receptor-targeted alpha particle therapy and immunotherapy to achieve complete responses in metastatic melanoma
Sept. 2020	SBIR Phase II	$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 II	$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 II	$2,000,000	Schultz & Johnson	Phase 1 dose ranging imaging clinical trial of VMT01 for metastatic melanoma at the Mayo Clinic
Jul-19	NCI *	$2,500,000**	Schultz & Menda	Alpha particle targeted receptor targeted radionuclide therapy for neuroendocrine tumors
Jun-19	SBIR Phase I	$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 (PRRT) for NETs
Sept. 2017	SBIR Phase I	$2,000,000	Johnson	Systemic targeted radionuclide therapy for metastatic melanoma.
Sept. 2017	SBIR Phase I ICORPS Award	$50,000	Schultz & Johnson	Intensive NCI-directed commercialization acceleration workshop.
Jan. 2016	SBIR Phase I	$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 (PRRT) for Children and Adults with Neuroendocrine and other Somatostatin Receptor Expressing Tumors
Oct. 2015	SBIR Phase I	$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 (NET)
May-15	SBIR Phase I	$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.

The Company's TAT platform includes a handful of topical pieces that we will attempt to summarize below. As with most biopharmaceutical stories, there is a fair amount of complexity here, especially for those of us who are not healthcare professionals/researchers, but we will hit some of the highlights to help delineate the opportunity as we understand it. We would add, the Company's filings contain considerable information regarding the technology, its mechanisms and the pre-clinical results and the following link may be helpful in that regard: Inline XBRL Viewer (sec.gov) . Again, here are some bullet points and some definitions that may provide some clarity regarding the opportunity as we see it and where beneficial, we have provided some of the Company's graphics to help illustrate relevant notions.

- **Alpha-emitting Isotopes and $^{203/212}$ Lead**

As we noted, the Company is focused on using alpha particle radiation to create radiopharmaceuticals, which differs from most legacy radiation-based therapies that utilize beta particles including other beta radiation-based radiopharmaceuticals. Both alpha and beta particles are the result of sequential nuclear decay (a decay chain) wherein unstable nuclei (a characteristic of radioactive elements) shed protons, neutrons or electrons to reach a stable nuclear balance. Generally, alpha particles are many times larger and heavier than beta particles, which means they are not able to travel as far or penetrate a surface as well as beta particles. On the other hand, when it comes to radiopharmaceuticals within the human body, alpha particles carry more

energy and as such are far more destructive to the cells they are exposed to. At the same time, because of their concentrated nature, and inability to travel they are less destructive to surrounding cells than beta particles. As a result, it follows that an alpha particle (vis-à-vis a beta particle) may be a more optimal approach to killing cancer cells if they can be precisely delivered to those specific cells, both because they can deliver more energy, but also because they will cause less collateral damage to surrounding cells.

Given the above, while alpha particles may provide certain benefits over their beta counterparts, those benefits (and associated costs) differ from one isotope to another. For instance, As **Table 3.** below illustrates, some isotopes with alpha-particle emitting decays have longer half-lives than others, and longer half-lives increase the time the isotope may stay in the body and thus (in part) may create a greater potential for "off target" toxicity. That said, Perspective has focused its research on the use of the isotope Lead-212 (^{212}Pb) which emits both alph- and beta particles in a short decay chain as a therapeutic and Lead-203 (^{203}Pb) (a photon emitter) for imaging/diagnostics. Recognize, ^{212}Pb and ^{203}Pb are "element-equivalent", which carries some importance we will delineate below. Again, **Table 3.,** which is part of the Company's collateral, illustrates some of the advantages of ^{212}Pb over some commercial beta-emitting isotopes, as well as another alpha emitters (Actinium-225). Succinctly, the Company's belief is alpha emitters can deliver a more lethal dose of radiation to a tumor than beta emitters, while at the same time compromising a much smaller portion of surrounding healthy tissue provided the delivery platform is designed for stability in formulation and en route to the tumor within the body. Moreover, they believe ^{212}Pb's shorter half life (10.6 hours vs. several days form other beta and alpha counterparts) 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 Pb-212 isotope and the rapid excretion of drug that has not bound to the tumor target provides the potential for treatment on an outpatient basis*".

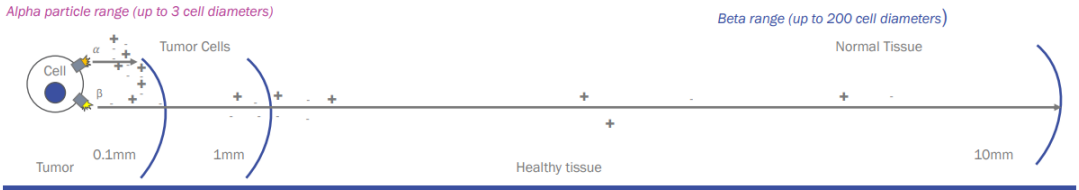
Beyond the benefits that ^{212}Pb may provide as a cancer therapy isotope, it also possesses another marked advantage over some of the other beta and alpha emitting isotopes that have been commercially developed. Specifically, aside from the varying safety profiles, some of these isotopes are difficult to manufacture, making their availability and by extension their relative cost problematic. For instance, Actinium-225 is rare, so from a practical standpoint it must be "manufactured" by proton accelerators, and while various entities are attempting to produce greater quantities, it remains to be seen whether commercial quantities necessary to treat (hypothetically) thousands of patients could be cost effectively achieved. As we sit today, they are trying to manufacture enough of it just to make further research and development possible.

Table 3.

Lead-212 (^{212}Pb): The Optimal Therapeutic Isotope

Greater Therapeutic Energy Expected to Improve Outcome with Better Safety

	Iodine (^{131}I)	Lutetium (^{177}Lu)	Actinium (^{225}Ac)	Lead (^{212}Pb)	Implication[1]
Emission Profile	Beta	Beta	Alpha	Alpha	Potent
Half Life	8 days	6.7 days	10 days	0.46 days	Rapid Clearance
Off Target Toxicity Risk	Very high	Low	High	Low	Best
Supply	High	Low	Low	High	Abundant
Cost of Production	Low	High	High	Low	High margin

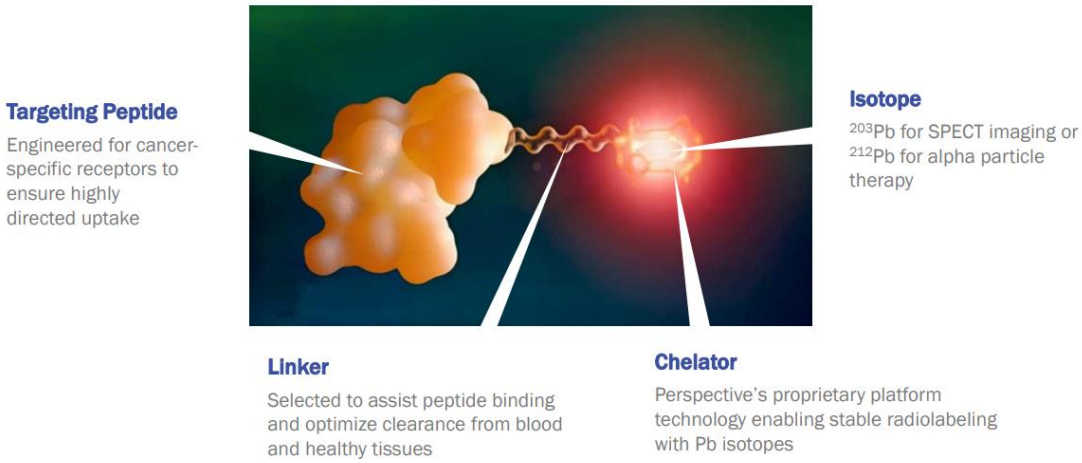


The destructive energy of an alpha particle is deposited within several cell diameters. A beta particle spreads its lower energy over a longer range

- **Peptides, Linkers and Chelators**

Recognize, while the Company is perhaps blazing a new trail by utilizing ^{212}Pb and ^{203}Pb as their respective therapeutic and diagnostic isotopes, there is nothing proprietary about that selection. Put another way, no one can patent naturally occurring isotopes so anyone can attempt to develop ^{212}Pb and ^{203}Pb to fight cancer. That said, the Company's IP is largely built around the components and the processes they have developed to identify and deliver ^{212}Pb and ^{203}Pb to tumors. That process is driven by proprietary peptides, linkers and chelators they have developed. Again, some definition may be beneficial and to that end, **Table 4** is an illustration provided by the Company that provides a good visual of the primary components of their technology platform.

Table 4.



From the National Human Genome Research Institute Peptide (genome.gov) :

A peptide is a short chain of amino acids (typically 2 to 50) linked by chemical bonds (called peptide bonds). A longer chain of linked amino acids (51 or more) is a polypeptide. The proteins manufactured inside cells are made from one or more polypeptides.

And from BioDesign Research: Design of Protein Segments and Peptides for Binding to Protein Targets | BioDesign Research (science.org)

"Peptides, short stretches of amino acids (AAs), often smaller than 50 residues, play key roles in our cellular function. Many of these peptides act as hormones that transfer messages in our body; metabolic hormones such as insulin and neuropeptides such as oxytocin are two examples of peptide hormones. Some protein fragments (also called peptides, hereafter) are in charge of modulating our cell signaling cascades such as signal peptides that guide proteins to their proper cellular locations, or proline-rich peptides that interact with SH3 domains in multiple signaling pathways. Some peptides play a role in defense; antimicrobial peptides (AMPs) and many antibiotics such as gramicidin S and lantibiotics and some toxins represent this class. This diversity in function suggests that designing peptides can open the door for many applications, from tuning cell signaling to generating novel antibiotics.

In addition to their natural roles, peptides have been used as a therapeutic modality complementary to antibodies and small molecules [14–17]. Similar to antibodies, ***peptides can bind to flat protein surfaces with high affinities and selectivities****. And similar to small molecules, they can cross the cell*

membrane to access intracellular targets. Thus, they offer a unique opportunity to target the so-called undruggable space of disease-related targets that are currently not accessible by antibodies or small molecules. While current methods for obtaining these therapeutic peptides often require a library-screening step, the ability to design peptides with desired properties to guide these libraries is of high interest".

And finally from Johns Hopkins Medicine: Scientists Find a Pair of Proteins Control Supply Lines That Feed Cancer Cells | Johns Hopkins Medicine

In human cancer cell and mouse studies, researchers from Johns Hopkins Medicine have found that a set of proteins work in tandem to build supply lines that deliver oxygen and nutrients to tumors, enabling them to survive and grow. The protein twosome, PADI4 and HIF-1, ramp up their activity under low-oxygen conditions that are typically found in a fast-growing tumor, allowing it to build new blood vessels that feed the cancer's growth.

We provided the peptide/protein narrative above, to help demonstrate a salient point regarding Perspective's platform and more specifically their peptide technology. Researchers know that there are relationships between particular proteins and certain cancers. As the Johns Hopkins reference above points out, the over expression of proteins is often a trademark of certain cancers, and for instance, many of today's major checkpoint inhibitors work by blocking those proteins on relevant tumor cells. To that end, Perspective has developed (its first proprietary) peptide that can bind specifically with the Somatostatin receptor 2 ("SSTR2") which is a protein receptor that is expressed in neuroendocrine tumors ("NETs"). Thus, the Company's first clinical product is termed "VMT-α-NET" which is an acronym for **V**iewpoint **M**edical **T**argeting for **N**euro**e**ndocrine **T**umors. Further, their second clinical product is termed VMT01. VMT01 uses a different (proprietary) peptide to target the melanocortin 1 receptor ("MC1R") which is expressed in metastatic melanoma. One of the Company's primary challenges is to develop peptides that can identify and bind with proteins that are expressed on particular types of cancer cells. Ostensibly, the more peptides they can develop, the more cancers they can potentially diagnose and subsequently treat.

Along with finding targeting peptides, the Company has also developed their own chelator. Chelators are sometimes used in medicine to bind to toxic metals creating structures that can then be safely excreted from the body. As such, chelators are used to mitigate metal poising (arsenic and lead for instance). In the case of Perspective's platform, the chelator is the "box" that carries the ^{212}Pb radioisotope through the bloodstream to the targeted cancer cell. While there are other commercially available chelators, Perspective's chelator is proprietary and designed specifically to both keep their ^{212}Pb radioisotope-carrying drug product intact until it reaches the cancer cell, but also to assist in the excretion of any remaining or unspent isotope. This invention adds to the safety of the platform. As with peptide technologies, creating chelators that are specific to specific applications is challenging. Lastly, the Company also develops their own linkers for each product that optimize tumor binding, cellular internalization and excretion characteristics.

As Table 4. illustrates, the linker binds the chelator to the peptide. Their linkers are proprietary as well, being developed to work specifically with the other two. For a bit more color, from the National Center for Biotechnology Information: Making smart drugs smarter: the importance of linker chemistry in targeted drug delivery - PMC (nih.gov)

Smart drugs, such as antibody-drug conjugates, for targeted therapy rely on the ability to deliver a warhead to the desired location and to achieve activation at the same site. Thus, designing a smart drug often requires proper linker chemistry for tethering the warhead with a vehicle in such a way that either allows the active drug to retain its potency while being tethered or ensures release and thus activation at the desired location.

To be clear, the process of identifying and then delivering a radiopharmaceutical to a tumor via chelators, linkers and peptides is considerably more complex than we have attempted to articulate here. On the other hand, that complexity also embodies the value of their underlying intellectual property. That said, we believe the take-away here is that Perspective has created a turn-key platform that uses a radioisotope that utilizes a photon emitter (^{203}Pb) to identify cancerous tumors via their proprietary tumor specific peptide(s) and its elemental equivalent alpha emitter (^{212}Pb) to kill the identified tumors. Further, for a variety of reasons, they believe their choice of lead isotopes provides advantages over other commercial beta therapies as well as other developing alpha emitter technologies utilizing isotopes that are difficult to manufacture and as a result include more challenging and expensive supply constraints, as well as perhaps additional safety concerns. In addition, the Company has built a true platform technology in the sense that some of its components (isotopes and chelators) can be used to attack a wide range of tumor types, while at the same other components of the platform (linkers and peptides) can be (have been) developed to address specific tumor types.

- **Current Indications & Clinical Road Map**

Table 5 and **Table 6** below from the Company's most recent presentation illustrate the current clinical pipeline as well as the roadmap to the first two indications we noted above;

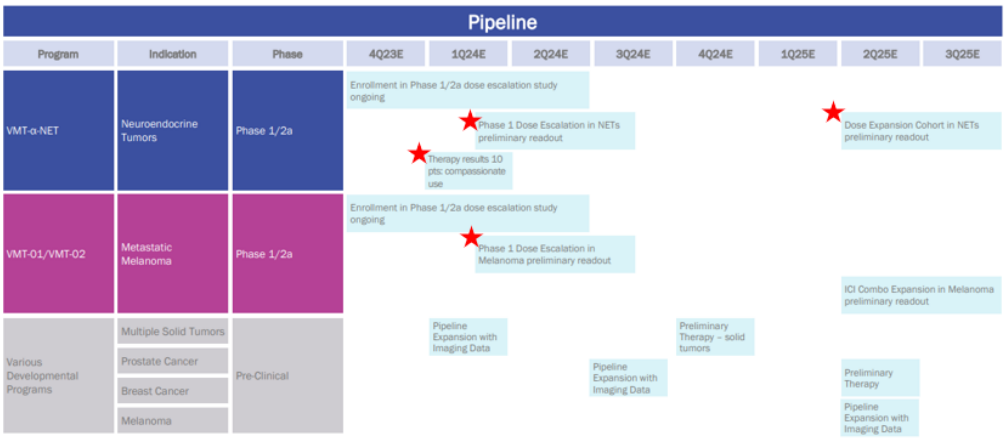
Table 5.

Platform Expansion Engine, Two Lead Programs in Clinic and Broad Proprietary Pipeline

Program	Indication	Discovery	Human Clinical Imaging	First in Human Therapy	Phase 1/2	Phase 3
VMT-α-NET	Neuroendocrine cancer					
	Pheochromocytomas, paragangliomas					
	Small cell lung cancer					
VMT-01	Melanoma *(MC1R)*					
VMT-02 *(PET agent)*	Melanoma (imaging of MC1R)					
Program 3 *(Novel peptide)*	Multiple solid tumors					
Program 4 *(Novel small molecule)*	Prostate					
Program 5 *(Novel peptide)*	Prostate, Breast					
Other Programs	Solid and hematological tumors					

Table 6.

Our Pipeline With Multiple Near-Term Data Readouts



To reiterate, their "lead" product is VMT-α-NET, (which includes both imaging and therapy) to address neuroendocrine tumors. Their second clinical product is VMT01 which addresses metastatic melanoma. In this case, the imaging agent is referred to as "VMT02". In addition, as **Table 5** reflects, there are other programs being developed for other cancer types, which include new peptides they are developing for various indications.

As these tables reflect, there are several clinical pieces in play here, and our view is that progress in some or all of these pieces are likely to create valuation catalysts for the Company. Moreover, some of these pieces, which we have denoted with the red stars (★) on **Table 6** should provide information in the near term. We are particularly interested in additional information regarding the status of patients in the compassionate use study which they indicate should be forthcoming. We have some additional information on that regard available below.

- **Clinical Milestones**

As we alluded to above, we think Perspective has achieved some early clinical milestones that deserve specific consideration and have by extension led to some promising developments that are also worth reiterating. To help illustrate these points, we have provided several exhibits from Company presentations and added some of our observations and color around each.

Table 7. below reflects the results of a mouse study around VMT-α-NET addressing neuroendocrine tumors. **Recognize, the markedly positive results of this study played a considerable role in the Company's fast track and compassionate use designations.** To edify, the Y-Axis measures tumor volume while X-Axis measures days from treatment. Frame 1 reflects no treatment and as expected tumor volume increases rapidly over a period of a few days. The red horizontal line reflects a point of severe (largely fatal) tumor expression. Also, the graphs reflect "mouse days", which translate roughly into 40 human days. As a result, in Frame 1, in under 20 days (roughly 2.2 human years) the cancer has effectively killed all the subjects. Frame 2 reflects mice treated with Lutetium (^{177}Lu) and a commercially available chelator (DOTATATE). As an aside we believe ^{177}Lu is the only currently approved beta emitting radiopharmaceutical isotope for cancer and is currently used by Novartis AG (NYSE:NVS) in their prostate cancer therapy PLUVICTO as well as in their LUTATHERA therapy for patients with SSTR-Positive Midgut NETs. As Frame 2 reflects, the ^{177}Lu therapy extended collective subject lives by something around 10 days (roughly an additional human year). Frames 3 and 4 reflect Perspective's VMT-α-NET therapy with different dosing regimens. Frame 3 is a single 120µCi dose, while Frame 4 reflects four 30 µCi doses. Obviously, these suggest

considerably higher initial and more durable efficacy versus the other two frames. We would add that the dosing comparison (Frame 3 to Frame 4) is important. Being able to achieve similar results delivering the same amount of drug but with multiple (lower) doses over time might provide a better overall safety protocol because, among other things, it gives the subject time to recover between doses. Again, we think these results (albeit pre-clinical) are very compelling.

Table 7.

VMT-α-NET Shows Improvements vs Standard of Care in Preclinical Models

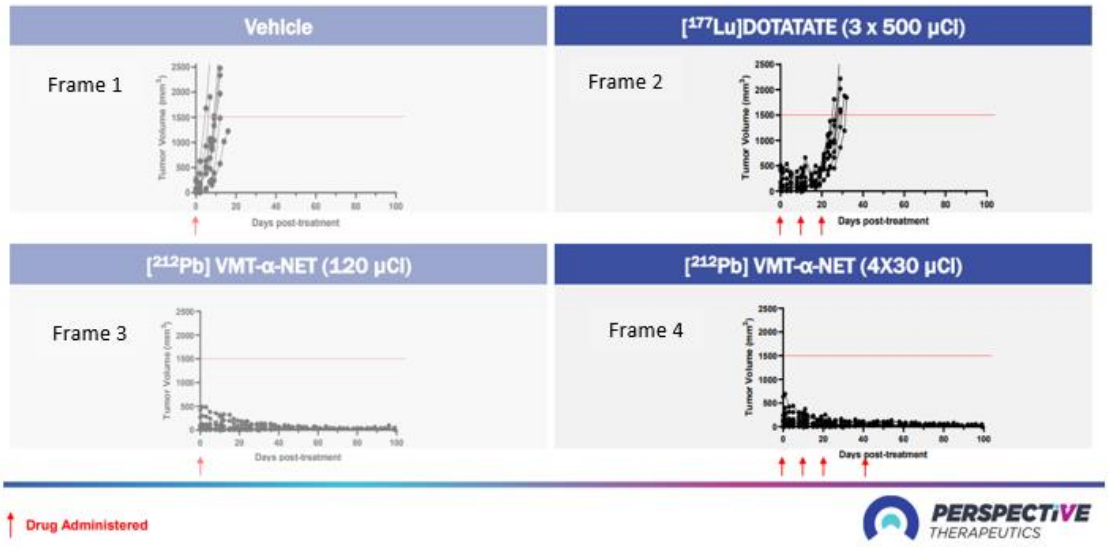


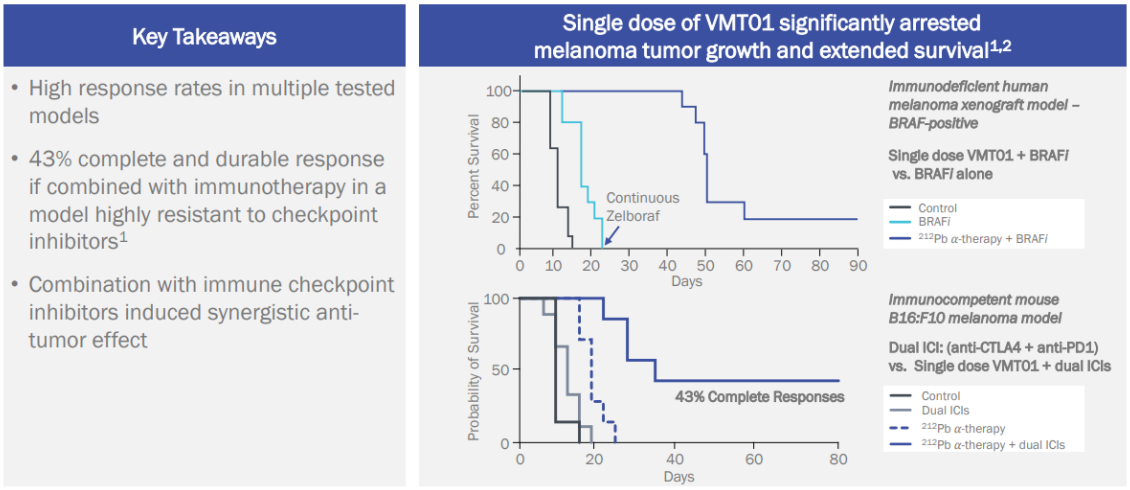
Table 8. below reflects another animal study but it involves the use of human melanoma cell lines and the Company's second peptide aimed at the treatment of late-stage melanoma. However, unlike the monotherapy study in **Table 7**., the **Table 8**. study is a combination study with Perspective's now optimized VMT01 and 2 separate therapies that approximate approved/standard therapies for the treatment of (certain) late-stage melanoma. The top graph below reflects the combination of Perspective's VMT01 protocol and Genetech's (Roche Holding AG U.S. Symbol: RHHBY) Zelboraf. As the graph reflects, the control group (no treatment) lived about 15 days (roughly 1.6 human years), the standard of care group (Zelboraf only) survived approximately 22 days (2.4 human years) and the combination group lived from roughly 40 days (4.4 human years) to between 50 and 60 days (about 6 years) with 20% of that group having a complete/durable response through 90 days (10 human years).

The graph on the bottom reflects similar iterations to the graph above, but now uses an aggressive immunotherapy resistant mouse model of melanoma to test how targeted radiation can impact the anti-tumor immune response. In this case, combination therapy included two standard late-stage melanoma checkpoint inhibitors and Perspective's VMT01 therapy. This particular checkpoint inhibitor ("ICI") combination represents the mouse equivalent of Bristol Myers Squibb's anti-CTLA monoclonal antibody ipilimumab (Bristol-Myers Squibb Company - BMY) "Yervoy" and Bristol Myers Squibb's anti-PD-1 monoclonal antibody nivolumab "Optivo", which is an approved combination used in certain late-stage melanoma patients. In this case, the ICI therapy alone was slightly better than the control group results (about 3 days or 4 human months). Also, an exception in this graph is that this study included a subject group that received VMT01 alone, and those results reflected an additional survival vs. the control and the ICI combination of about another 8 days and 5 days respectively (about 11 and 7 human months). **However, the combination of VMT01 along with the ICI combination yielded markedly higher survival rates for virtually all the subjects, with a complete/durable response in 43% of the subjects.** To reiterate, this is only an animal trial, but, that is an *extraordinary* response in the oncology world. If we were to extend these assumptions

to humans, it would imply that patients with these cancer characteristics would likely achieve the best possible results using VMT01 in combination with other ICIs, which is why we noted above that we believed combination trials are a likely path for the use of Perspective's platform in some types of cancer. While Perspective does not yet have a Fast Track designation for VMT01, we believe this data along with coming initial phase1/2 data could provide the basis for that designation and perhaps an additional valuation catalyst.

Table 8.

VMT01/02 Demonstrated Complete Responses in Multiple Animal Tumor Models



Setting aside **Table 8**. for a moment, we think the logical question from the results of **Table 7**. should be something like, "given the extraordinary results from the animal study, why don't they try to test VMT-α-NET in humans"? The answer to that is, "they have". Recall, we noted that the Company was granted a Fast Track designation by the FDA for NET patients on September 9, 2022. In part as a result of that designation, the Company began imaging NET patients with [^{203}Pb]VMT-alpha-NET in December 2022 to confirm targeted radiation dose delivery to tumors and excretion characteristics, and subsequently began dosing NET patients in India on a monotherapy basis with VMT-α-NET in May, 2023. That single institution IRB-approved study included 10 subjects. The results through September 28, 2023 are included in **Table 9.** below. There are a few things about this table that may require some additional color. First, recognize neuroendocrine tumors ("NETs") often end up manifesting themselves in particular organs that contain specialized nerve or endocrine-like cells. For instance, from the notations of the table, Patient 3 has a Pancreatic NET, while Patients 2 & 8 have Medullary Thyroid Carcinoma NETs. While different in some respects all these patients suffer from NETs featuring somatostatin receptors (SSTRs). Consequently, each is applicable to biomarker-driven treatment with Perspective's NET peptide. Second, notice these are also patients with "late-stage" NETs, which also requires some added discussion.

Recognize, NETs are often slow growing, but are frequently diagnosed in advanced stage after eluding standard cancer screening tests. The first line of therapy for NETs is surgery if the tumor is resectable (approximatey 30%) and it has not spread to other parts of the body. Therefore, surgery is not typically an option for patients in later stages. From The National Center for Biotechnology Information: Best Practices for the Coordinated Care of Patients with Neuroendocrine Tumors Undergoing Peptide Receptor Radionuclide Therapy - PMC (nih.gov)

Treatment with curative intent for NETs is surgery; however, most cases are diagnosed in the advanced or metastatic setting, which is not amendable to surgical resection. For patients in whom surgery with curative intent is not an option, the goals of treatment are ***symptom control and palliative care****. Most NETs with hormone hypersecretion overexpress somatostatin receptors (SSTRs) and first-line treatment with somatostatin analogs (SSAs), such as octreotide or lanreotide, are used to control symptoms. Approximately two thirds of NETs originate in the gastrointestinal tract and pancreas (known as gastroenteropancreatic [GEP] NET) and a smaller proportion (1.49 cases per 100,000 people) originating in the lungs or thymus. Gastroenteropancreatic NETs frequently overexpress SSTRs, and the National Comprehensive Cancer Network (NCCN) and North American Neuroendocrine Tumor Society and the Society of Nuclear Medicine and Molecular Imaging guidelines recommend SSA as first-line treatment for SSTR-positive grades 1 and 2 (G1 and G2) GEP NETs.* ***However, treatment resistance frequently occurs****. For patients with GEP NETs who progress on first-line SSA, treatment options include [177Lu]Lu-DOTA-TATE, everolimus, chemotherapy, liver-directed therapy (for liver-predominant disease), and palliative radiotherapy for patients with symptomatic bone metastases.11 Sunitinib and temozolomide plus capecitabine are also options for patients with pancreatic NETs.4*

[177Lu]Lu-DOTA-TATE is a radiolabeled peptide receptor radionuclide therapy (PRRT) indicated for the treatment of adult patients with SSTR-positive GEP NET, including foregut, midgut, and hindgut NETs, and was approved by the US Food and Drug Administration in January 2018.

To recap the above "standard of care" for people with unresectable NETs typically the periodic injection of somatostatin analogs ("SSA"). However, these analogs are administered for "*symptom control and palliative care… **h**owever, treatment resistance frequently occurs"*. When patients reach the point of treatment resistance, there are currently some additional options available including *"[177Lu]Lu-DOTA-TATE, everolimus, chemotherapy, liver-directed therapy…".* In general none of these remaining options yield significant and/or durable results. As we discussed above *[177Lu]Lu-DOTA-TATE* is Novartis' approved beta emitting radiopharmaceutical, but even it is only marginally successful in extending patient survival. Recall what was illustrated in Perspective's animal study in Frame 2 of **Table 7** above. To that end, we noted above that Perspective has received a Fast Track designation for VMT-α-NET based in part on the Table 7 study. However, along with that Fast Track designation, Perspective was also given "first-line" status with respect to the post SSA treatments we just noted above: *[177Lu]Lu-DOTA-TATE, everolimus, chemotherapy, liver-directed therapy…".* To translate, today, a NET patient (along with their physician) who has developed resistance to SSAs is able to explore VMT-α-NET trial participation *instead of* those other available options including *177Lu-DOTA-TATE.* In that case, they would need to qualify and consent for Perspective's clinical trial, but they do not have to try and/or fail some of these other treatments before they are allowed to try the Fast Track alternative. **We believe it is rare for Fast Track drugs to be given a first line position alongside other approved therapies.**

The above noted, **Table 9**. reflects the most recent results from the 10-person VMT-α-NET study in India. As **Table 6**. above reflects, the Company expects updated results from these patients in the first half of 2024. We believe additional positive results from these patients could provide catalysts for the Perspective's valuation. To that end, **Table 10.** below is a scan of the tumor response in **Patient 1** from **Table 9.**

Table 9.

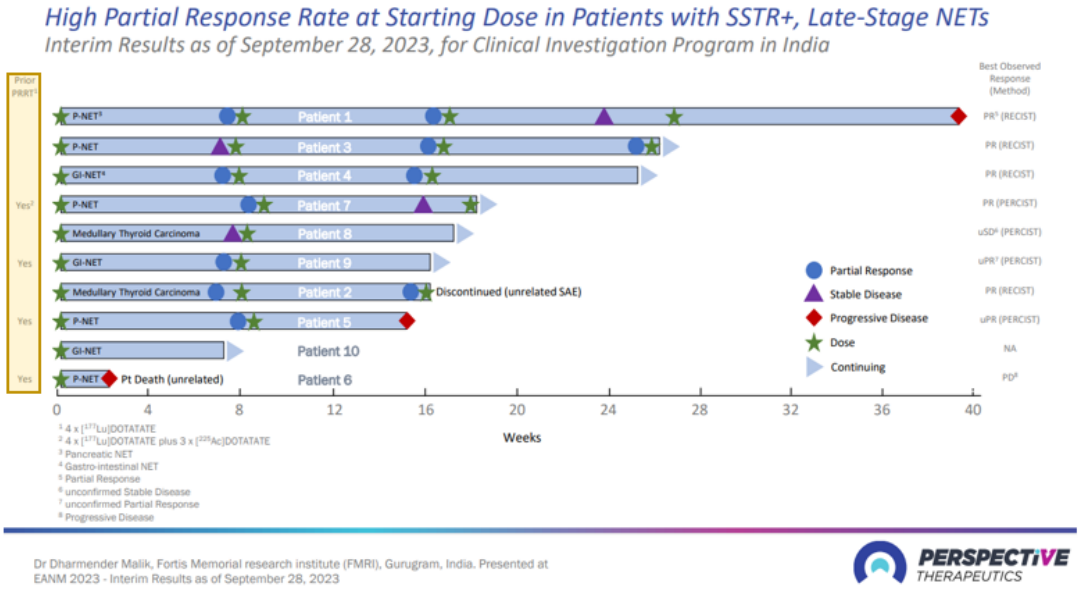
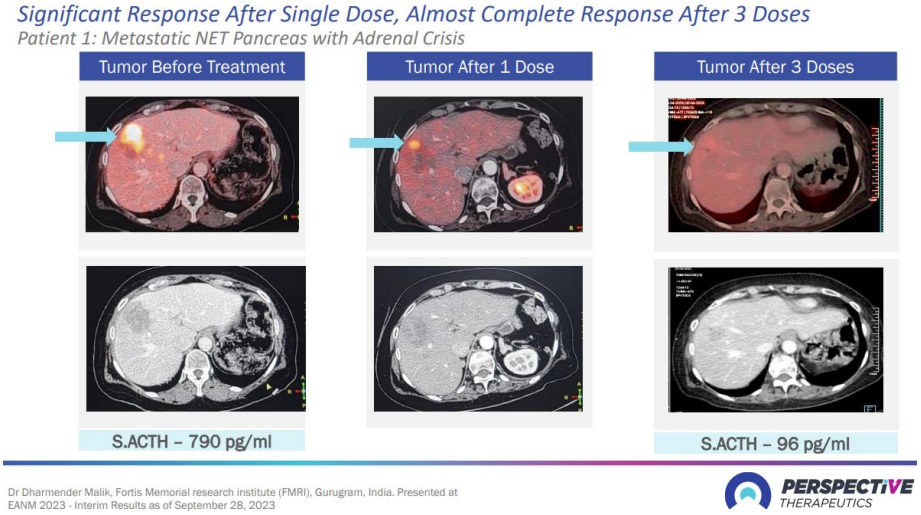


Table 10.



In addition to the results and images above, the Company also provides some additonal collateral gathered from the imaging/diagnostic portion of the patform that we think is construcutive and may provide some support with respect to why the Company's animal models (**Table 7** & **Table 8**), as well as their (albeit early) human data (**Table 9**), have demonstrated such robust responses. **Table 11** and **Table 12** below include animal and human images respectively from the Company's ^{203}Pb *diagnostic* protocol. On one hand, **Table 11** is a comparison of Perspective's proprietary chelator, versus the commercial DOTATOC chelator in terms of image quality. On the other hand, it also demonstrates the "8X" tumor uptake, which indicates the ratio of the isotope that ends up in the tumor ("T") as opposed to being excreted to/through the kidneys ("K"). To reiterate, the value of these images and utilizing ^{203}Pb as a diagnostic and early drug development tool is that the illumination of the tumor site(s) indicates binding and therefore the presence of SSTR2, which means that ^{212}Pb will bind and deliver a radioactive payload as well, validating its use as a therapeutic. Put another way, if these images reflected nothing but accumulation in the kidneys, it would indicate that there would be no point in treating the patient with ^{212}Pb, because there would be nothing (no type 2 somatostatin receptors) for it to bind to. While that information may not tell a practitioner what to do next, it would certainly tell them what NOT to do next, saving time and money that could perhaps be spent on an alternative therapy with a higher likelihood of positive impact. **Table 12** reflects the human imaging, which confirms

drug binding specificity, but now also includes a time function. That is, the images provide a time differentiation that demonstrates the considerable initial uptake of ^{203}Pb into the tumor, but also its high retention one day later. Obviously, the greater the amount of the drug retained in the tumor, the better the chance of therapeutic success.

Table 11.

Imaging Shows Superiority of Perspective's Platform Technology vs Generic Compounds

Decreased Off-Target Toxicity, Increased Tumor Uptake and Retention in Preclinical Studies

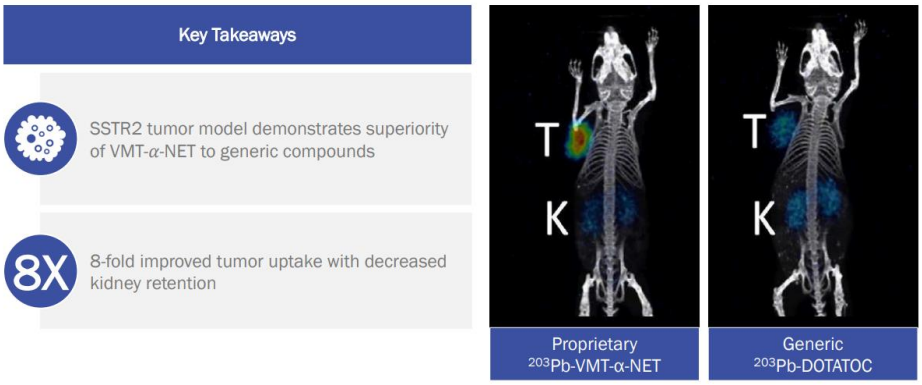
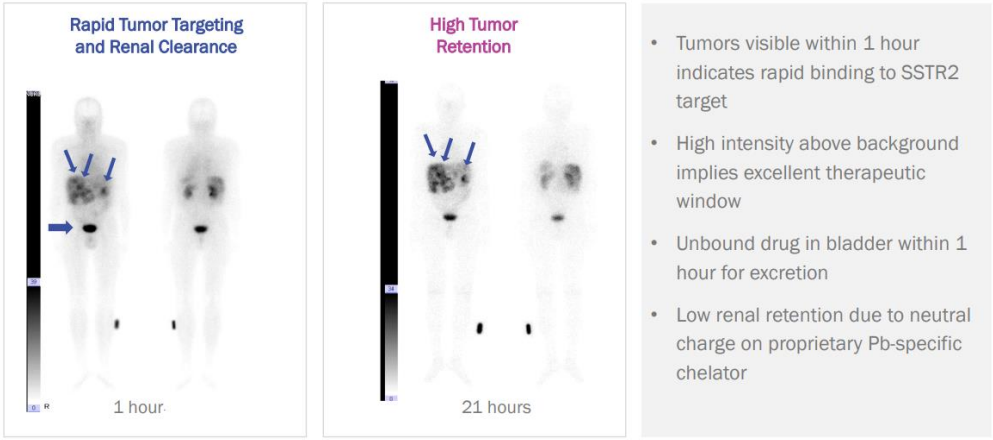


Table 12.

^{203}Pb SPECT Imaging Reveals Favorable VMT-α-NET Properties[1]



- **VMT-α-GEN. (generator)**

Aside from their theranostic platform, Perspective has also developed a complimentary technology that we think is markedly additive to the whole. From the Company's filings:

> *Viewpoint has developed a proprietary isotope generator, VMT-α-GEN, to deliver its therapeutic isotope Pb-212 for supply to patients. Viewpoint has received licensing to operate from the Nuclear Regulatory Commission and entered into a 10-year feedstock contract with the Department of Energy ("DoE"). Viewpoint has received from the DoE feedstock shipments of Thorium-228 that VMT-α-GEN uses to generate Pb-212. Viewpoint has scaled manufacturing of VMT-α-GEN available for research purposes that Viewpoint believes will facilitate its alpha therapy clinical trials. Viewpoint*

believes that by controlling the therapeutic isotope supply it can solve the many supply-chain risks that have slowed alpha-particle therapy clinical adoption to date.

Table 13.

^{212}Pb Supply via Reusable Desktop Isotope Generator

As we alluded to above, there are companies currently pursuing the use of Actinium-225 alpha isotopes to treat cancer much along the lines of Perspective. However, we think it is fair to suggest that there are some uncertainties around the scalability of that approach due to the scarcity of the isotope. Beyond availability, we also think it is fair to say that the scalability of any radiopharmaceutical provides some unique challenges because of special requirements around their acquisition, transportation, storage and administration by healthcare providers, not to mention utilizing them before their half-lives turn them into something different. That said, as the Company's collateral also notes, "*there were 40+ million diagnostic nuclear medicine procedures performed in the US in 2022"*. Further, *"multiple networks exist in a competitive environment of 300+ radiopharmacies across the U.S. Distribution logistics are mature and well-developed"*. Moreover, *"many of these diagnostic products have much shorter half-lives than ^{212}Pb"*.

Ironically, one of the advantageous of ^{212}Pb is its relatively short half-life, and one of the disadvantages of ^{212}Pb is its relatively short half-life. To edify, as we have attempted to illustrate throughout this report, ^{212}Pb's short(er) half-life may provide safety advantages over other isotopes because its transition to a benign element in the quantities used (lead) is much faster than that of many others that go through a decay chain of other radioactive forms, therefore increasing the risk of off-target toxicity. However, the challenge of getting a short half-life isotope into a patient before it turns into something else is obvious. In the case of ^{212}Pb, 10.6 hours does not leave much time to generate the isotope, deliver to a healthcare facility and administer it to a patient before it decays. In short, that is why the Company's VMT-α-GEN generator is such an important piece of the story. The Company believes they can place these generators in various locations across the network described above, allowing them to deliver ^{212}Pb to a large portion of potential patients, regardless of their location. In our view, the Company's generator addresses some of the practical challenges that radiopharmaceutical cancer therapies face.

Lastly, we think it is important to reiterate an issue we noted briefly above. Much of the cancer research and development of the past few decades has been focused on creating therapies that are able to address not only the origins (primary tumor) of a cancer patient, but also the systemic (metastasis) of the disease to other parts of the body. Again, cancer metastasis accounts for most cancer deaths, so finding solutions that address the spread of the disease is clearly the focus. While using radioactive isotopes to kill cancer cells has been among the standards of care for several decades, it has not generally been viewed as a systemic solution. Outside of the occasional and not well understood instances of abscopal effects from radiation therapy we mentioned prior, radiotherapy has not generally been viewed as a systemic tool. Moreover, its use has also

generally been limited to tumors that were readily accessible. The advent of radiopharmaceuticals changes that equation in a way that could be transformative. Recognize, the injection of radiopharmaceuticals may provide systemic benefits via their ability to seek and destroy multiple tumors throughout the body, even those that are unresectable. However, they may also provide a more durable long-lasting benefit as well.

In the radiopharmaceutical world, there is a phenomenon referred to as the "Bystander Effect". From ScienceDirect: Bystander Effect - an overview | ScienceDirect Topics

> *"The term bystander effect describes the ability of cells affected by irradiation to convey manifestations of damage to other cells not directly targeted for irradiation. An irradiated cell can send out a signal and induce a response in a cell whose nucleus was not directly hit by radiation".*

Circling back, some believe the "Abscopal Effect" is perhaps the result of the body's immune systems acknowledging and then "remembering" the elements of the destroyed fragments of a tumor as an invader, thus effectively creating a vaccine against the cancer. While the Bystander Effect is perhaps a different response than the Abscopal Effect, the two either separately or in tandem, (along with other mechanisms as of yet incompletely understood), could provide the type of systemic, durable, lasting responses that cancer researchers, doctors and patients are searching for.

Operating Overview

Typically, this section of our coverage includes an overview of our operating assumptions and associated projections that then support our target conclusions. That overview is more relevant to some businesses than to others. Clearly, for companies that are generating revenues, cash and corresponding profits that ultimately determine valuation, this portion of the analysis is quite cogent. For companies like Prospective that are pre-revenue, are likely to be so far beyond the foreseeable future and will require significant amounts of capital on an ongoing basis, the analysis is a bit different.

To edify, based on the time required to reach an NDA as provided in Table 1 from the FDA, our model assumption is that it will take Perspective through 2030 to get to the point of an NDA. We have assumed a terminal value at that point (effectively an acquisition of the Company) based on a portion of the available NET market as laid out below (from the Company's collateral):

> *Viewpoint's initial product candidate, VMT-α-NET, is in development for the treatment and diagnosis of neuroendocrine tumors (NETs), which represent over a $5 billion market opportunity (when measuring the combined 2019 sales for Affinitor ($1.5B), Lutathera ($400M), Sandostatin ($1.6B), Sutent ($1B), Somatuline ($700M) and Azedra ($2M).*

We have assumed share counts at that point in the future based on the periodic sale of shares to support our assumed G&A and R&D along the way. We have also assumed varying share prices along that trajectory to project the increase in share counts necessary to support associated working capital.

We have applied considerable discount rates to our target analysis to reflect the risks associated with uncertainties around the timing of capital, the amount of capital available to the Company, and the cost of that associated capital. We submit, visibility around those items is poor. We would add, our approach assumes that the Company will continue to achieve clinical success with their VMT-α-NET platform. Recognize, if their clinical efforts fail to demonstrate the safety and efficacy objectives established by their clinical trial criteria, the Company may fail, and our targets will be substantially overstated.

We have argued above that Perspective has developed a platform technology that may address multiple types of cancer. As we noted, our analysis/target assumptions today include success in their NET efforts, but do not take into account potential success in other indications. However, as we also illustrated above, the

Company is in the midst of clinical efforts in melanoma as well as pre-clinical efforts in other cancer types. Success in those pursuits could provide valuation legs that our assumptions and targets are not considering.

To reiterate, our model/target assumptions assume a 2030 terminal period, which again corresponds with the FDA's roadmap to an NDA illustrated in **Table 1** above. To be clear, while we think this is a defensible approach to our target assumptions, we do not think that is a likely outcome. Our sense is that if Perspective can continue to achieve clinical success, the greater likelihood is some sort of transaction involving a larger pharmaceutical company. For instance, as we noted above, Novartis seems to have a head start in terms of approved radiopharmaceuticals, Pluvicto and Lutathera, as well as perhaps in NET treatments in general in terms of somatostatin analogs. On the other hand, the radiopharmaceutical industry in general is emerging as a potentially promising new approach to cancer therapy, so another large pharmaceutical company looking to leapfrog their way into the space could be a possibility as well. That is all just purely our own speculation, but the idea of large pharmaceutical companies purchasing smaller pharmaceutical companies on the heels of clinical advances by the latter that effectively de-risk the technology is not uncommon. Further, along the same lines, again assuming further clinical success, it would not be unusual for Perspective to attract a joint venture partner or other collaborator that could provide non-dilutive capital in exchange for some portion of the technology, which could change the valuation calculus we laid out above.

For those who are interested in public comps, there are at least two publicly traded companies engaged in clinical stage radiopharmaceutical programs: RayzeBio, Inc. (Nasdaq: RYZB) and Fusion Pharmaceuticals Inc. (Nasdaq: FUSN). We believe each of these is primarily utilizing Actinium-225 in their programs. The market capitalization of Fusion Pharmaceuticals Inc. is just $700 million, while RayzeBio was *just purchased* by Bristol Myers (NYSE:BMY) for $4.1 billion . The current market capitalization of Perspective is $128 million. We would encourage readers to examine additional clinical and financial data of these or any other comparative companies before drawing any conclusions from a comparative analysis. As a sidenote to these comparisons, we would add that Fusion Pharmaceuticals Inc. has a *"strategic collaboration agreement with AstraZeneca UK Limited to discover, develop, and commercialize alpha-emitting radiopharmaceuticals and combination therapies for the treatment of cancer".* We mention that because it dovetails into our scenario above regarding Perspective attracting a joint venture partner or other collaborator that could provide non-dilutive capital in exchange for some portion of the technology.

Lastly, to reiterate, we have built our model and resulting target assumptions around the Company's VMT-α-NET therapy, which is currently being advanced as a monotherapy. Further, their VMT01 melanoma therapy is also being advanced as a monotherapy but as **Table 8** reflects, pre-clinal evidence suggests that VMT01 may be even more effective as a combination therapy with checkpoint inhibitors or other treatments. From our perspective, that posture of having perhaps multiple shots at the "gold ring" may improve the overall risk profile of the Company as we think it provides multiple potential avenues for success.

Management Overview

Thijs Spoor - Chief Executive Officer
An established leader with nearly 30 years of combined executive, broad management, and capital markets expertise across healthcare and medical device industries, with prior commercial and development roles in the radiopharmaceutical industry, initially educated as a nuclear pharmacist .

Jonathan Hunt – Chief Financial Officer
Has more than 25 years of finance and accounting experience as a versatile leader across public accounting and in a variety of industries, including Fortune 500 companies.

Markus Puhlmann, MD MBA – Chief Medical Officer
A surgical oncologist who became a clinical researcher with over 30 years of combined experience the pharmaceutical industry with leadership positions in oncology drug development across many cancer types.

Michael K Schultz PhD – Chief Science Officer
A Viewpoint Molecular co-founder, funded NIH investigator and a tenured Associate Professor of Radiology, Pediatrics, Free Radical and Radiation Biology, and Chemistry at the University of Iowa with over 20 years of experience leading start-up biotechnology, government, and academic research programs.

Frances L. Johnson, MD – Chief Innovation Officer
A Viewpoint Molecular co-founder, physician scientist and biotechnology entrepreneur with over 25 years experience in business creation and leadership of multi-disciplinary clinical and research programs in academic, government and private enterprise settings.

Amos Hedt – Chief Business Strategy Officer
An experienced research professional with over 20 years in the biotechnology and pharmaceutical industries, the last decade in radioactive drug development and a comprehensive understanding of all stages of drug research & development.

David Hauser, PhD - Senior Vice President Clinical Operations
Has been working in drug development for nearly 30 years in both biotechnology and Contract Research Organizations (CRO). His experience spans all phases of development, with a particular focus on Phase 1-3 studies.

Risks and Caveats

Small biopharma companies are among the riskiest enterprises in the investment universe. As **Table 1.** above illustrates, for the thousands of compounds that start in the development stage, only 200 or 300 advance to the pre-clinical stage, of which less than 5% make it to the clinical stage and *maybe* a small handful of those get to an FDA approval. This asset class is not for the risk averse.

As we have attempted to delineate (briefly) above, Perspective has had impressive results in several of their animal studies as well as in more limited (human) compassionate use results in India. As **Table 1.** above reflects, successful pre-clinical animal studies do not always translate into successful human clinical results. On the contrary, the large majority of the time, they do not.

The Company's success in demonstrating its safety and efficacy in human clinical trials depends on its ability to identify and enroll patients that fit the criteria established by the trial(s) parameters. In our experience, enrolling eligible patients can be a challenge and can extend the time (and by extension the costs) associated with clinical trials. To this point, the Company has been able to enroll patients in various studies, including compassionate use in India, and in recent dosing studies for both VMT-α-NET and VMT01. In fact, we think their early success (albeit **early**) may provide some positive validation. However, we believe enrollment could be an ongoing headwind.

We have argued that as opposed to developing a single drug Perspective is developing a platform that could ultimately address a variety of cancers with certain modifications to their peptides or to other small molecule binders they may develop. However, not all the components of their platform are proprietary or certainly protectable via patent. For instance, the (^{212}Pb) and (^{203}Pb) isotopes, which are the cancer killing components of their platform, can be used by anyone to develop their own platforms around those isotopes. As an

example, there are multiple companies developing therapies around the Actinium-225 isotope, so we suspect there may be and/or will be others looking into ^{212}Pb.

We believe that large pharmaceutical companies carry a considerable amount of clout when it come to regulatory bodies around the globe and more specifically the U.S. FDA. Without getting too far into the weeds, we also think that means small pharmaceutical companies like Perspective may face disadvantages when it comes to their clinical processes and ultimately their approvals vis-à-vis their larger counterparts. That is especially daunting when those large companies develop and sell products that can or may compete with the products of smaller companies and in our view, that may be particularly acute when smaller players are developing products that may displace the successful products of those large companies.

Dovetailing into our notion regarding the clout of big pharma, small companies bringing new drugs to the market, face additional challenges beyond the clinical/approval process. While achieving an FDA approval is a major milestone for any company and its respective drug, an approval does not guarantee success in the marketplace. Succinctly, while we assert that big pharma carries clout amongst regulators, they may carry even more clout in the marketplace when it comes to marketing, sales, distribution etc. Frankly, those notions regarding big pharma's competitive posture may explain in part why so many smaller companies and/or their drugs that experience clinical success end up getting acquired by larger counterparts. To reiterate, while a FDA approval certainly changes the profile of a small drug company, it does not guarantee commercial success. That brings us to another salient and related risk.

Companies utilizing nuclear components in their medical therapies have some unique challenges. First, given the inherent danger associated with these components, their procurement for both clinical use, and in the case of success, their commercial use are governed an monitored by agencies beyond the FDA. Moreover, in the commercial settings, these drugs must be administered by facilities and personnel that are specifically certified to handle them and that fact alone could inhibit the scalability of these therapies. Along the same lines, those factors could also negatively impact the distribution of these therapies as they must be shipped and stored with considerably more rigor than many drugs/therapies. In the case of radiopharmaceuticals, that rigor includes a timing component since these isotopes are constantly degrading into other isotopes or ultimately other benign elements. In the case of Perspective, this may be particularly acute because while they believe that ^{212}Pb's half life of 10 hours provides better safety profiles than isotopes with much longer half-lives, that benefit comes with greater delivery and logistical challenges in terms of getting the therapy delivered and administered to a patient within that half-life window. While we believe the Company's ^{212}Pb generator technology addresses that issue, on the face, establishing the necessary distribution infrastructure is a daunting task for *any sized* company, which could compromise the underlying value of the technology and by extension the Company.

Aside from the likely outcome that a small biopharma's drug will fail along the way and never get an approval, there are other associated issues that add to the risk profile of these enterprises. For instance, while industry estimates of the costs required to get a drug through FDA approval vary widely (ranging from hundreds of millions to billions of dollars), it is not clear to us how much Perspective will require if they continue to achieve clinical success and are able to move through all the required phases and into an NDA new drug application ("NDA"). However, we do believe that number may likely exceed $200 million. Recognize, that number represents roughly *150% of the current market capitalization of the Company*. There is no assurance they will be able to raise that amount of capital, and if they can it will almost certainly be markedly dilutive. Our model/targets include assumptions regarding the breadth of that dilution, but that endeavor involves poor visibility so those dilution assessments could prove considerably understated and by extension, or valuation assessments prove considerably overstated.

In conjunction with the prior paragraph, Perspective's shares are relatively thinly traded and as such are generally more illiquid and more volatile than those of many other publicly traded issuers. In addition, the

Company recently filed a prospectus initiating an "at the market offering" of *up to a maximum aggregate offering price of $50,000,000*. In accordance with this offering, the Company may, "*sell the securities being offered by prospectus from time to time pursuant to public offerings, negotiated transactions, block trades, "At the Market Offerings" within the meaning of Rule 415(a)(4) of the Securities Act of 1933, as amended (the "Securities Act"), into an existing trading market, at a fixed price or prices, which may be changed, at prevailing market prices, at prices related to such prevailing market prices, at negotiated prices or a combination of these methods. We may sell the securities being offered by this prospectus to or through underwriters or dealers, through agents or remarketing firms, or directly to one or more purchasers.* We think it is fair to suggest that this offering could provide headwinds for the direction of the stock as long as it is in place, as it allows the Company to sell shares directly into the market.

As with many small companies, Perspective relies on the collective contributions of a limited number of individuals. The Company's success may depend on their ability to retain these individuals.

These are just some of the risks we have identified. There are likely others we have missed or are otherwise unidentifiable currently.

Summary and Conclusion

Perspective was formed by the February 3, 2023 merger of two enterprises: publicly traded Isoray, Inc. and Viewpoint Molecular Targeting, Inc., a private company. The combined entity changed its name to Perspective Therapeutics, Inc. on February 14, 2023, and began trading under a new stock symbol, (CATX) shortly thereafter. The Company's current focus is on the clinical advance of Viewpoint's image-guided Targeted Alpha Therapies platform ("TAT"). It is important to note that Viewpoint has been researching and developing the platform at the University of Iowa for over 15 years. As a result, the Company is well into the clinical timeline typically required to develop and obtain a new drug approval.

Radiation has been used as a standard of care for the treatment of cancerous tumors since at least the 1960's, and today remains one of the primary pillars of cancer treatment. However, the development of "radiopharmaceuticals", is an emerging field in cancer diagnosis and treatment and may provide several advantages over legacy radioisotope protocols as well as over many current cancer standards of care. Specifically, radiopharmaceuticals include peptides or other small molecules that can identify specific types of cancer cells and can in turn deliver lethal doses of radiation to those tumors.

While radiopharmaceuticals may hold marked promise in the war against cancer, their volatile nature provides specific challenges to their widespread use. For instance, radioisotopes generally are elements with unmatched combinations of neutrons/protons in their nuclei, which cause them to be unstable. At times, these elements release some of those protons or neutrons (their "half-life") in order to reach a more stable state. That "radioactive" energy is released, typically as either gamma rays, beta particles or alpha particles. Both beta and alpha particles can be destructive to tissue, especially if they are inhaled or ingested inside the body. As a result, the challenge in harnessing this phenomenon to fight cancer lies in directing that destructive energy to cancer cells and limiting its exposure to healthy cells, and within the time frames of the associated half-lives of each type of isotope. Further, there are distinctions between beta particles and alpha particles. Most topically, alpha particles generally provide a more concentrated burst of energy over a shorter path than beta particles, which may enhance their impact on the cancerous cells and lessen their impact on surrounding cells if properly directed. Moreover, the use of these isotopes is also complicated by the supply/availability of the isotopes, some of which may occur in nature, albeit often in limited amounts, while others may be able to be "manufactured" but perhaps less so, cost effectively at scale.

In recognition of the above challenges, Perspective's unique TAT uses the isotopes Lead-203 (^{203}Pb) and Lead-212 (^{212}Pb) for diagnostics and therapy respectively. Recognize, ^{212}Pb and ^{203}Pb are "element-equivalent", so when they inject ^{203}Pb (a minimally destructive photon emitter) into a patient and then image them, if the ^{203}Pb is visible (bound to a tumor), they know that they can then inject the more lethal alpha particle emitter ^{212}Pb and it will also bind to (and now destroy) the tumor. Conversely, if the ^{203}Pb is not visible in the scan, it indicates that the therapy phase of the process is not likely to bind to the cancer cell, avoiding a treatment that is likely to fail. This combination of isotopes to diagnose and then treat applicable tumors, is referred to as "theragnostic". For a variety of reasons we noted throughout this report, the Company believes that these lead isotopes provide a variety of ideal characteristics, including mitigated off-target toxicity profiles, that make them optimal for use in cancer therapy and diagnostics.

Along with the use of lead isotopes, Perspective's TAT also includes proprietary peptides designed to bind to cancer cells with specific characteristics, as well as proprietary chelators used to link and deliver the deadly isotopes with the peptide binders. As we also described above, the Company believes their "holistic" approach provides unique and optimal synergies. In addition, their ability to develop peptides that can identify specific types of tumors while utilizing the same delivery (chelators) and payload (deadly isotopes) elements, means that they may ultimately be able to address a multitude of cancer types with limited modification to the platform.

To date, Perspective has been able to demonstrate impressive results in animal studies in both metastatic melanoma and neuroendocrine tumors. Those results have in part been supported by additional clinical results in human testing, largely in compassionate use settings in India. Along with ongoing data from patients in India, the Company is in the process of enrolling and treating patients in the U.S. in 1/2a trials, one of which includes an FDA Fast Track designation. They are hopeful that the second will gain Fast Track designation as well. As the Company's clinical roadmap reflects, they expect 2024 to include several preliminary clinical readouts of these trials and/or studies. We believe that positive results from these readouts could provide constructive catalysts for Perspective's valuation. Further, we also believe that Perspective may represent a favorable relative value in terms of investment exposure to the emerging radiopharmaceutical space.

As a result of the above conclusions as we seem them, and in recognition of the associated risks we have attempted to highlight, we are initiating coverage of Perspective Therapeutics, Inc. with an allocation of 4 and a 12-24 month price target of $1.40 per share. We will revisit these metrics as new data points emerge.

Projected Operating Model

Perspective Therapeutics, Inc.							
Projected Operating Statement							
By Trickle Research							
	(Actual)	(Actual)	(Actual)	(Estimate)	(Estimate)	(Estimate)	(Estimate)
	3/31/23	**6/30/23**	**9/30/23**	**12/31/23**	**Fiscal 2023**	**Fiscal 2024**	**Fiscal 2025**
Sales	$ 1,830	$ 1,500	$ 1,909	$ 1,500	$ 6,739	$ -	$ -
Grant revenue	$ 233	$ 588	$ 276	$ -	$ 1,097	$ -	$ -
Total revenue	$ 2,063	$ 2,088	$ 2,185	$ 1,500	$ 7,836	$ -	$ -
Cost of sales	$ 1,576	$ 1,840	$ 1,447	$ 1,137	$ 6,000	$ -	$ -
Gross profit	$ 487	$ 248	$ 738	$ 363	$ 1,836	$ -	$ -
Operating expenses:							
Research and development	$ 3,857	$ 5,653	$ 5,721	$ 5,761	$ 20,992	$ 23,450	$ 24,114
Sales and marketing	$ 812	$ 911	$ 855	$ 860	$ 3,438	$ -	$ -
General and administrative	$ 7,023	$ 5,073	$ 4,696	$ 5,000	$ 21,792	$ 21,063	$ 21,228
Change in estimate of asset retirement obligation	$ -	$ (15)	$ -	$ -	$ (15)	$ -	$ -
Loss on disposal of property and equipment	$ 22	$ -	$ -	$ -	$ 22	$ -	$ -
Total operating expenses	$ 11,714	$ 11,622	$ 11,272	$ 11,621	$ 46,229	$ 44,513	$ 45,342
Operating loss	$ (11,227)	$ (11,374)	$ (10,534)	$ (11,258)	$ (44,393)	$ (44,513)	$ (45,342)
Non-operating income (expense):			$ -	$ -			
Interest income	$ 374	$ 294	$ 204	$ -	$ 872	$ -	$ -
Interest (expense)	$ (18)	$ (28)	$ (14)	$ -	$ (60)	$ -	$ -
Other income (expense)	$ 356	$ 2	$ (12)	$ -	$ 346	$ -	$ -
Non-operating income, net	$ 356	$ 268	$ 178	$ -	$ 802	$ -	$ -
Net loss before deferred income tax benefit	$ (10,871)	$ (11,106)	$ (10,356)	$ (11,258)	$ (43,591)	$ (44,513)	$ (45,342)
Deferred income tax benefit	$ 10,500	$ -	$ -	$ -	$ 10,500	$ -	$ -
Net loss	$ (371)	$ (11,106)	$ (10,356)	$ (11,258)	$ (33,091)	$ (44,513)	$ (45,342)
Basic and diluted loss per share (in dollars per share)	$ -	$ (0.04)	$ (0.04)	$ (0.04)	$ (0.12)	$ (0.12)	$ (0.08)
Weighted average shares used in computing net loss per share:							
Basic and diluted (in '000's)	228,591	279,988	280,558	283,558	268,174	379,808	543,558
Projected Cash Position (in '000's)				$ 8,000	$ 8,000	$ 15,097	$ 5,745

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Trickle Research co-sponsors two microcap conferences each year. Trickle Research encourages its coverage companies to present at those conferences and Trickle charges them a fee to do so. Companies are under no obligation to present at these conferences. Perspective Therapeutics, Inc. has paid fees to present at Trickle co-sponsored conferences and we will encourage them to do so in the future.

Portions of this publication excerpted from company filings or other sources are noted in *italics* and referenced throughout the report.

Rating System Overview:

There are no letters in the rating system (Buy, Sell Hold), only numbers. The numbers range from 1 to 10, with 1 representing 1 "investment unit" (for my performance purposes, 1 "investment unit" equals $250) and 10 representing 10 investment units or $2,500. Obviously, a rating of 10 would suggest that I favor the stock (at respective/current levels) more than a stock with a rating of 1. As a guideline, here is a suggestion on how to use the allocation system.

Our belief at Trickle is that the best way to participate in the micro-cap/small cap space is by employing a diversified strategy. In simple terms, that means you are generally best off owning a number of issues rather than just two or three. To that point, our goal is to have at least 20 companies under coverage at any point in time, so let's use that as a guideline. Hypothetically, if you think you would like to commit $25,000 to buying micro-cap stocks, that would assume an investment of $1000 per stock (using the diversification approach we just mentioned, and the 20-stock coverage list we suggested and leaving some room to add to positions around allocation upgrades. We generally start initial coverage stocks with an allocation of 4. Thus, at $1000 invested per stock and a typical starting allocation of 4, your "investment unit" would be the same $250 we used in the example above. Thus, if we initiate a stock at a 4, you might consider putting $1000 into the position ($250 * 4). If we later raise the allocation to 6, you might consider adding two additional units or $500 to the position. If we then reduce the allocation from 6 to 4 you might consider selling whatever number of shares you purchased with 2 of the original 4 investment units. Again, this is just a suggestion as to how you might be able to use the allocation system to manage your portfolio.

For those attached to more traditional rating systems (Buy, Sell, Hold) we would submit the following guidelines.

A Trickle rating of 1 thru 3 would best correspond to a "Hold" although we would caution that a rating in that range should not assume that the stock is necessarily riskier than a stock with a higher rating. It may carry a lower rating because the stock is trading closer to a price target we are unwilling to raise at that point. This by the way applies to all of our ratings.

A Trickle rating of 4 thru 6 might best (although not perfectly) correspond to a standard "Buy" rating.

A Trickle rating of 7 thru 10 would best correspond to a "Strong Buy" however, ratings at the higher end of that range would indicate something that we deem as quite extraordinary..... an "Extreme Buy" if you will. You will not see a lot of these.