

## Risk Factors Comparison 2024-03-26 to 2023-03-22 Form: 10-K

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An investment in our common stock involves a high degree of risk. You should carefully consider the risks described below before making an investment decision in our securities. These risk factors are effective as of the date of this Form 10-K and shall be deemed to be modified or superseded to the extent that a statement contained in our future filings modifies or replaces such statement. All of these risks may impair our business operations. The forward-looking statements in this Form 10-K involve risks and uncertainties and actual results may differ materially from the results we discuss in the forward-looking statements. If any of the following risks actually occur, our business, financial condition or results of operations could be materially adversely affected. In that case, the trading price of our stock could decline, and you may lose all or part of your investment. Risks Associated with Our Business Our business is subject to numerous risks that you should be aware of before making an investment decision. These risks are described more fully in this “Risk Factors” section and include, among others:

- We are a **development clinical** stage company with a history of operating losses, and we expect losses to continue for the indefinite future. These factors raise substantial doubt regarding our ability to continue as a going concern.
- All of our product candidates are in clinical development. If we are unable to successfully develop, receive regulatory approval for and commercialize our product candidates, or successfully develop any other product candidates, or experience significant delays in doing so, our business will be harmed.
- The FDA regulatory approval process is lengthy and time-consuming, and we may experience significant delays in the clinical development and regulatory approval of our product candidates.
- The results of earlier preclinical and clinical trials may not be predictive of future clinical trial results.
- Our ~~business and operations could be adversely affected by the effects of health epidemics, including the COVID-19 pandemic.~~
- Our preclinical studies and clinical trials may fail to demonstrate the safety and efficacy of our product candidates, or serious adverse or unacceptable side effects may be identified during the development of our product candidates, which could prevent or delay regulatory approval and commercialization, increase our costs or necessitate the abandonment or limitation of the development of some of our product candidates.
- **We are establishing and maintaining our own cGMP manufacturing facility is subject to many risks. Although we established our own cGMP manufacturing facility, in the future we may be dependent on third-party vendors to design, build, maintain and support our manufacturing and cell processing facilities. If any of our third-party vendors experience disruptions, or otherwise cease or substantially reduce their operations, our business and operations could be adversely affected.**
- Our strategic relationship with BCM is dependent, in part, upon our ongoing relationship with key medical and scientific personnel and advisors.
- Our commercial success depends upon attaining significant market acceptance of our product candidates, if approved, among physicians, patients, healthcare payors and the medical community.
- The biotechnology and immunotherapy industries are characterized by rapid technological developments and a high degree of competition. We may be unable to compete with more substantial enterprises.
- If we are unable to protect our proprietary rights, we may not be able to compete effectively or operate profitably.
- We are subject to extensive regulation, which can be costly, time consuming and can subject us to unanticipated delays. Even if we receive regulatory approval of our product candidates, we will be subject to ongoing quality and regulatory obligations and continued regulatory review, which may result in significant additional expense, and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our product candidates.
- The price of our stock may be volatile. Risks Related to our Financial Position and Capital Needs We are a **development clinical** stage company with a history of operating losses, and we expect losses to continue for the indefinite future. These factors raise substantial doubt regarding our ability to continue as a going concern. We are a clinical-stage immunotherapy company with a history of losses, and we may always operate at a loss. We expect that we will continue to operate at a loss throughout our development stage, and as a result, we may exhaust our financial resources and be unable to complete the development of our product candidates. We anticipate that our ongoing operational costs will increase significantly, and our deficit will continue to grow, as we continue conducting our clinical development program. We have no approved products or product candidates pending approval. As a result, we have not derived any revenue from the sales of products and have not yet demonstrated ability to obtain regulatory approval, formulate and manufacture commercial-scale products, or conduct sales and marketing activities necessary for successful product commercialization. We have no sources of significant revenue to provide incoming cash flows to sustain our future operations. Our ability to pursue our planned business activities depends upon our successful efforts to raise additional financing, which may be adversely impacted by potential worsening global economic conditions, including decades-high inflation and concerns of a recession in the United States or other major markets, and the recent disruptions to and volatility in the credit and financial markets in the United States and worldwide, ~~including from the COVID-19 pandemic.~~ Weakness and volatility in the capital markets and the economy in general could also increase our costs of borrowing. Such additional financing may not be available on favorable terms, or at all.

~~35~~ **We** have sustained losses from operations in each fiscal year since our inception, and we expect losses to continue for the indefinite future due to the substantial investment in research and development. We expect that our cash ~~and cash equivalents and restricted cash~~ as of December 31, ~~2022~~ **2023**, **together with the drawdowns from available grant funds**, will enable us to fund our operating expenses and capital expenditure requirements into the ~~third~~ **fourth** quarter of ~~2023~~ **2025**. We expect to spend substantial additional sums on the continued administration and research and development of licensed and proprietary product candidates and technologies with no certainty that our approach and associated technologies will become commercially viable or profitable as a result of these expenditures. If we fail to raise a significant amount of capital, we may need to significantly curtail operations, allocate limited financial resources among our product

candidates, or cease operations in the near future. If any of our product candidates fail in clinical trials or do not gain regulatory approval, we may never generate revenue. Even if we generate revenue in the future, we may not be able to become profitable or sustain profitability in subsequent periods. These and other factors raise substantial doubt regarding our ability to continue as a going concern, which may create negative reactions to the price of our common stock. If we are unable to continue as a going concern, we may have to liquidate our assets and may receive less than the value at which those assets are carried on our financial statements, and it is likely that investors will lose all or a part of their investment. Further, the perception that we may be unable to continue as a going concern may impede our ability to pursue strategic opportunities or operate our business due to concerns regarding our ability to discharge our contractual obligations. In addition, if there remains substantial doubt about our ability to continue as a going concern, investors or other financing sources may be unwilling to provide additional funding to us on commercially reasonable terms, or at all.

**Adverse 29 Adverse** developments affecting financial institutions, companies in the financial services industry or the financial services industry generally, such as actual events or concerns involving liquidity, defaults or non- performance, could adversely affect our operations and liquidity. Actual events involving limited liquidity, defaults, non- performance or other adverse developments that affect financial institutions or other companies in the financial services industry or the financial services industry generally, or concerns or rumors about any events of these kinds, have in the past and may in the future lead to market- wide liquidity problems. For example, on March 10, 2023, Silicon Valley Bank, or SVB, was closed by the California Department of Financial Protection and Innovation, which appointed the Federal Deposit Insurance Corporation, or the FDIC, as receiver. Although a statement by the U. S. Department of the Treasury, the Federal Reserve and the FDIC stated that all depositors of SVB would have access to all of their money after only one business day following the date of closure, uncertainty and liquidity concerns in the broader financial services industry remain. Inflation and rapid increases in interest rates have led to a decline in the trading value of previously issued government securities with interest rates below current market interest rates. The U. S. Department of Treasury, FDIC and Federal Reserve Board have announced a program to provide up to \$ 25 billion of loans to financial institutions secured by such government securities held by financial institutions to mitigate the risk of potential losses on the sale of such instruments. However, widespread demands for customer withdrawals or other needs of financial institutions for immediate liquidity may exceed the capacity of such program. There is no guarantee that the U. S. Department of Treasury, FDIC and Federal Reserve Board will provide access to uninsured funds in the future in the event of the closure of other banks or financial institutions in a timely fashion or at all. Our access to our cash and cash equivalents in amounts adequate to finance our operations could be significantly impaired by the financial institutions with which we have arrangements directly facing liquidity constraints or failures. In addition, investor concerns regarding the U. S. or international financial systems could result in less favorable commercial financing terms, including higher interest rates or costs and tighter financial and operating covenants, or systemic limitations on access to credit and liquidity sources, thereby making it more difficult for us to acquire financing on acceptable terms or at all. Any material decline in available funding or our ability to access our cash and cash equivalents could adversely impact our ability to meet our operating expenses, result in breaches of our contractual obligations or result in violations of federal or state wage and hour laws, any of which could have material adverse impacts on our operations and liquidity.

**36 Risks -- Risks** Related to the Development of our Product Candidates All of our product candidates are in clinical development. If we are unable to successfully develop, receive regulatory approval for and commercialize our product candidates, or successfully develop any other product candidates, or experience significant delays in doing so, our business will be harmed. We are early in our development efforts and all of our product candidates are still in clinical development. Each of our programs and product candidates will require additional preclinical and / or clinical development, regulatory approval, obtaining manufacturing supply, capacity and expertise, building a commercial organization or successfully outsourcing commercialization, substantial investment and significant marketing efforts before we generate any revenue from product sales. We do not have any products that are approved for commercial sale, and we may never be able to develop or commercialize marketable products. Our ability to generate revenue from our product candidates, which we do not expect will occur for several years, if ever, will depend heavily on the successful development, regulatory approval and eventual commercialization of our product candidates. The success of our multiTAA product candidates or any other product candidates that we develop or otherwise may acquire will depend on several factors, including:

- timely and successful completion of preclinical studies, including toxicology studies, biodistribution studies and minimally efficacious dose studies in animals, where applicable, and clinical trials;
- effective investigational new drug applications, or INDs, from the FDA or comparable foreign applications that allow commencement of our planned clinical trials or future clinical trials for our product candidates;
- sufficiency of our financial and other resources to complete the necessary preclinical studies and clinical trials;
- 30** • successful enrollment and completion of clinical trials, including under the FDA’ s current Good Clinical Practices, or GCPs, and current Good Laboratory Practices;
- successful development of, or making arrangements with third- party manufacturers for, our commercial manufacturing processes for any of our product candidates that receive regulatory approval;
- receipt of timely marketing approvals from applicable regulatory authorities;
- launching commercial sales of products, if approved, whether alone or in collaboration with others;
- acceptance of the benefits and use of our products, including method of administration, if approved, by patients, the medical community and third- party payors, for their approved indications;
- the prevalence and severity of adverse events experienced by our product candidates;
- the availability, perceived advantages, cost, safety and efficacy of alternative therapies for any product candidate, and any indications for such product candidate, that we develop;
- our ability to produce any product candidates we develop on a commercial scale;
- obtaining and maintaining patent, trademark and trade secret protection and regulatory exclusivity for our product candidates and otherwise protecting our rights in our intellectual property portfolio;
- maintaining compliance with regulatory requirements, including the FDA’ s current Good Manufacturing Practices, or cGMPs, and complying effectively with other procedures;
- obtaining and maintaining third- party coverage and adequate reimbursement and patients’ willingness to pay out- of- pocket in the absence of such coverage and adequate reimbursement;
- and 37 -- and** • maintaining a continued acceptable safety, tolerability and efficacy

profile of the products following approval. If we are not successful with respect to one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize the product candidates we develop, which would materially harm our business. If we do not receive marketing approvals for any product candidate we develop, we may not be able to continue our operations. Because we have limited financial and management resources, we must focus on development programs and product candidates that we identify for specific indications. As a result, we may forego or delay pursuit of opportunities with other product candidates or for other indications for these product candidates that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future development programs and product candidates for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate. The FDA regulatory approval process is lengthy and time-consuming, and we may experience significant delays in the clinical development and regulatory approval of our product candidates. Any immunotherapies that we may develop are not likely to be commercially available for at least three years. Any delay in obtaining FDA and / or other necessary regulatory approvals in the United States and in countries outside the United States for any investigational new drug and failure to receive such approvals would have an adverse effect on the investigational new drug's potential commercial success and on our business, prospects, financial condition and results of operations. The time required to obtain approval by the FDA and non-U. S. regulatory authorities is unpredictable but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. ~~We~~<sup>31</sup>~~We~~ have not previously submitted a biologics license application, or BLA, to the FDA, or similar approval filings to comparable foreign authorities. A BLA must include extensive preclinical and clinical data and supporting information to establish the product candidate's safety and effectiveness for each desired indication. The BLA must also include significant information regarding the chemistry, manufacturing and controls for the product. We expect the novel nature of our product candidates to create further challenges in obtaining regulatory approval. For example, the FDA has limited experience with commercial development of cell therapies for cancer. Accordingly, the regulatory approval pathway for our product candidates may be uncertain, complex, expensive and lengthy, and approval may not be obtained, and the FDA or non-U. S. regulatory authorities may disagree with the design or implementation of our clinical trials or study endpoints. We may also experience delays in completing planned clinical trials for a variety of reasons, including delays related to: • the availability of financial resources to commence and complete the planned trials; • reaching agreement on acceptable terms with prospective clinical research organizations, or CROs, and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites; • obtaining approval by an independent institutional review board, or IRB, at each clinical trial site; • recruiting suitable patients to participate in a trial; • having patients complete a trial or return for post-treatment follow-up; • clinical trial sites deviating from trial protocol or dropping out of a trial; • adding new clinical trial sites; or • manufacturing sufficient quantities of qualified materials under cGMPs and applying them on a subject by subject basis for use in clinical trials. ~~38~~<sup>Further</sup>~~Further~~, the performance of our CROs may also be interrupted by health epidemics or other disruptions, ~~such as the ongoing COVID-19 pandemic~~, including due to travel or quarantine policies or prioritization of resources toward such health epidemic or disruption. We could also encounter delays if physicians face unresolved ethical issues associated with enrolling patients in clinical trials of our product candidates in lieu of prescribing existing treatments that have established safety and efficacy profiles. Further, a clinical trial may be suspended or terminated by us, the IRB for the institutions in which such trials are being conducted, the Data and Safety Monitoring Board or Committee for such trial, or by the FDA or other regulatory authorities due to a number of factors. Those factors could include failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a product candidate, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. If we experience termination of, or delays in the completion of, any clinical trial of our product candidates, the commercial prospects for our product candidates will be harmed, and our ability to generate product revenue will be delayed. In addition, any delays in completing our clinical trials will increase our costs, slow down our product development and approval process and jeopardize our ability to commence product sales and generate revenue. Preclinical studies and clinical trials are expensive, time-consuming, difficult to design and implement and involve an uncertain outcome. Further, we may encounter substantial delays in completing the development of our product candidates. All of our product candidates are in clinical development and their risk of failure is high. The clinical trials and manufacturing of our product candidates are, and the manufacturing and marketing of our products, if approved, will be, subject to extensive and rigorous review and regulation by numerous government authorities in the United States and in other countries where we intend to test and market our product candidates. Before obtaining regulatory approvals for the commercial sale of any of our product candidates, we must demonstrate through lengthy, complex and expensive preclinical testing and clinical trials that our product candidates are both safe and effective for use in each target indication. In particular, because our product candidates are subject to regulation as biological products, ~~we~~<sup>32</sup>~~we~~ will need to demonstrate that they are safe, pure and potent for use in their target indications. Each product candidate must demonstrate an adequate risk versus benefit profile in its intended patient population and for its intended use. Clinical trials are expensive and difficult to design and implement, in part because they are subject to rigorous regulatory requirements. Because our product candidates are based on new technologies and manufactured on a patient-by-patient basis for our multiTAA-specific T cell product candidates we expect that they will ~~require extensive research and development and~~ have substantial manufacturing costs. In addition, the initial estimates of the clinical cost of development may prove to be inadequate, particularly if clinical trial timing or outcome is

different than predicted or regulatory agencies require further testing before approval. For example, we previously experienced temporary delays in enrollment due to the COVID- 19 pandemic and in satisfying certain FDA requirements for our **clinical study Phase 2 trial** of MT- 401 for the treatment of post- transplant AML, and any further delay to our planned timelines for our trial may impact our cost estimates for this trial. In addition, costs to treat patients with relapsed / refractory cancer and to treat potential side effects that may result from our product candidates can be significant. Some clinical trial sites may not bill, or obtain coverage from, Medicare, Medicaid, or other third- party payors for some or all of these costs for patients enrolled in our clinical trials, and we may be required by those trial sites to pay such costs. Accordingly, our clinical trial costs may be significantly higher per patient than those of more conventional therapeutic technologies or drug products. In addition, our proposed personalized product candidates involve several complex manufacturing and processing steps, the costs of which will be borne by us. Depending on the number of patients we ultimately enroll in our trials, and the number of trials we may need to conduct, our overall clinical trial costs may be higher than for more conventional treatments. Further, delays and interruptions to ongoing trials related to **the global pandemics, as experienced with COVID- 19 pandemic has, can increased- increase** the duration and costs of such trials. We outsource some of the management of our clinical trials to third parties. Agreements with clinical investigators and medical institutions for clinical testing and with other third parties for data management services, place substantial responsibilities on these parties that, if unmet, could result in delays in, or termination of, our clinical trials. If any of our clinical trial sites fail to comply with FDA- approved good clinical practices, we may be unable to use the data gathered at those sites. If these clinical investigators, medical institutions or other third parties do not carry out their contractual duties or obligations or fail to meet expected deadlines, or if the quality or accuracy of the clinical data they obtain is compromised due to their failure to adhere to our clinical protocols or for other reasons, our clinical trials may be extended, delayed or terminated, and we may be unable to obtain regulatory approval for, or successfully commercialize, agents. We cannot be certain that we will successfully recruit enough patients to complete our clinical trials nor that we will reach our primary endpoints. Delays in recruitment, lack of clinical benefit or unacceptable side effects would delay our clinical trials. We, or our regulators, may suspend or terminate our clinical trials for a variety of reasons. For example, in the fourth quarter of 2019 the FDA placed a clinical hold on our IND of MT- 401 for the treatment of patients with post- transplant AML and requested certain ~~39~~ **information- information** regarding quality and technical specifications for two reagents supplied by third- party vendors that are used in our manufacturing process but not present in the final product infused to patients. In January 2021, the FDA lifted the clinical hold, permitting us to initiate a Phase 2 clinical trial for the treatment of post- transplant AML, with a safety lead- in portion. We completed the safety lead- in portion of the trial in June 2021, and we initiated the remainder of the Phase 2 trial in July 2021 ~~and have completed enrollment of approximately 20 patients~~. We may voluntarily suspend or terminate our clinical trials at any time if we believe they present an unacceptable risk to the patients enrolled in our clinical trials or do not demonstrate clinical benefit. For example, in November 2019 we elected to suspend our Phase 2 clinical trial of TPIV200 for the treatment of platinum- sensitive advanced ovarian cancer based on an unblinded review of interim results conducted by an independent Data and Safety Monitoring Board, or DSMB. Although the DSMB did not express any safety concerns with respect to TPIV200, we elected to suspend the trial because it did not meet the threshold for probability of clinical benefit based upon our pre- specified criteria. In addition, regulatory agencies may order the temporary or permanent discontinuation of our clinical trials at any time if they believe that the clinical trials are not being conducted in accordance with applicable regulatory requirements or that they present an unacceptable safety risk to the patients enrolled in our clinical trials. Our clinical trial operations are subject to regulatory inspections at any time. If regulatory inspectors conclude that we or our clinical trial sites are not in compliance with applicable regulatory requirements for conducting clinical trials, we may receive reports of observations or warning letters detailing deficiencies, and we will be required to implement corrective actions. If regulatory agencies deem our responses to be inadequate, or are dissatisfied with the corrective actions we or our clinical trial sites have implemented, our clinical trials may be temporarily or permanently discontinued, and we may be fined, we or our investigators may be precluded from conducting any ongoing or any future clinical trials, the government may refuse to approve our marketing applications or allow us to manufacture or market our products, and we may be criminally prosecuted. The lengthy approval process, as well as the unpredictability of future clinical trial results, may result in us failing to obtain regulatory approval for our product candidates, which would materially harm our business, results of operations and prospects. ~~The 33~~ **The** results of earlier preclinical and clinical trials may not be predictive of future clinical trial results. Failure can occur at any time during the clinical trial process. The results of preclinical testing and early clinical trials of our product candidates may not be predictive of the results of larger, later- stage controlled clinical trials. Product candidates that have shown promising results in early- stage clinical trials may still suffer significant setbacks in subsequent clinical trials. Our clinical trials to date have been conducted on a small number of patients in a single academic clinical site for a limited number of indications. We will have to conduct larger, well- controlled trials in our proposed indications at multiple sites to verify the results obtained to date and to support any regulatory submissions for further clinical development of our product candidates. Our assumptions related to our product candidates, such as with respect to lack of toxicity and manufacturing cost estimates, are based on early limited clinical trials and current manufacturing processes ~~at Baylor College of Medicine, or BCM,~~ and may prove to be incorrect. Several companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or adverse safety profiles despite promising results in earlier, smaller clinical trials. Moreover, clinical data are often susceptible to varying interpretations and analyses. We do not know whether any Phase 2, Phase 3, or other clinical trials we may conduct will demonstrate consistent or adequate efficacy and safety with respect to the proposed indication for use sufficient to receive regulatory approval or market our product candidates. If we do not achieve our projected development goals in the time frames we announce and expect, the commercialization of our products may be delayed. From time to time, we may estimate the timing of the accomplishment of various scientific, clinical, regulatory, manufacturing and other product development goals, which we sometimes refer to as milestones. These milestones may include the commencement or

completion of preclinical studies and clinical trials and the submission of regulatory filings, including IND submissions. From time to time, we may publicly announce the expected timing of some of these milestones. All of these milestones are, and will be, based on a variety of assumptions. The actual timing of these milestones can vary significantly compared to our estimates, in some cases for reasons beyond our control, including with respect to challenges related to enrollment, manufacturing and our reliance on third parties to conduct, supervise or monitor some or all aspects of our clinical trials. We may experience numerous unforeseen events during, or as a result of, any future clinical trials that we conduct that could delay or prevent our ability to receive marketing approval or commercialize our product candidates. We may experience difficulties in patient enrollment in our future clinical trials for a variety of reasons. The timely completion of clinical trials in accordance with their protocols depends, among other things, on our ability to enroll a sufficient number of patients ~~40~~who **who** remain in the study until its conclusion. In addition, our clinical trials will compete with other clinical trials for product candidates that are in the same therapeutic areas as our product candidates, and this competition will reduce the number and types of patients available to us, because some patients who might have opted to enroll in our trials may instead opt to enroll in a trial being conducted by one of our competitors. Accordingly, we cannot guarantee that our clinical trials will progress as planned or as scheduled. Delays in patient enrollment may result in increased costs or may affect the timing or outcome of our ongoing clinical trial and planned clinical trials, which could prevent completion of these trials and adversely affect our ability to advance the development of our product candidates. ~~Our business and operations could be adversely affected by the effects of health epidemics, including the COVID-19 pandemic. Our business and operations could be adversely affected by the effects of health epidemics, including the ongoing COVID-19 virus, which was declared by the World Health Organization as a global pandemic. Remote work policies, quarantines, shelter-in-place and similar government orders, shutdowns or other restrictions on the conduct of business operations related to the COVID-19 pandemic or other health epidemics may negatively impact productivity. For instance, the COVID-19 pandemic disrupted our ongoing research and development activities and delayed certain of our clinical programs and timelines. In addition, although our employees are accustomed to working remotely, changes in internal controls due to remote work arrangements may result in control deficiencies in the preparation of our financial reports, which could be material. Such orders may also impact personnel at third-party manufacturing facilities in the United States and other countries, or the availability or cost of materials, which would disrupt our supply chain and could affect our ability to conduct ongoing and planned clinical trials and preparatory activities. Health epidemics may also affect the conduct of our clinical trials. Although we are enrolling patients and initiating clinical sites in our Phase 2 trial of MT-401 (zedinoleuceel) for post-transplant AML, we previously experienced temporary delays in enrollment due to the COVID-19 pandemic and in satisfying certain FDA requirements to move forward with the trial, which together resulted in a delay in our overall timelines for this trial. Our ongoing and future clinical trials may be also affected by the COVID-19 pandemic. Patient enrollment and clinical site initiation, while ongoing, may be delayed due to prioritization of hospital resources toward the COVID-19 pandemic or other health emergencies, if they arise. Some patients may not be able to comply with clinical trial protocols if quarantines impede patient movement or interrupt healthcare services. Similarly, we may be unable to recruit and retain patients and principal investigators and site staff who, as healthcare providers, may have heightened exposure to COVID-19, which would adversely impact clinical trial operations. The global COVID-19 pandemic continues to evolve. The extent to which the COVID-19 pandemic impacts our business and operations, including our clinical development and regulatory efforts, will depend on future developments that are highly uncertain and cannot be predicted with confidence, such as the continued geographic spread of the disease, the duration and effect of any future business disruptions in the United States and other countries to contain and treat patients with the disease. Accordingly, we do not yet know the full extent of potential delays or impacts on our business, our clinical and regulatory activities, healthcare systems or the global economy as a whole. However, these impacts could adversely affect our business, financial condition, results of operations and growth prospects. In addition, to the extent the ongoing COVID-19 pandemic adversely affects our business and results of operations, it may also have the effect of heightening many of the other risks and uncertainties described in this "Risk Factors" section. Our preclinical studies and clinical trials may fail to demonstrate the safety and efficacy of our product candidates, or serious adverse or unacceptable side effects may be identified during the development of our product candidates, which could prevent or delay regulatory approval and commercialization, increase our costs or necessitate the abandonment or limitation of the development of some of our product candidates. Before obtaining regulatory approvals for the commercial sale of our product candidates, we must demonstrate through lengthy, complex and expensive preclinical testing and clinical trials that our product candidates are safe, pure and effective for use in each target indication, and failures can occur at any stage of testing. Preclinical studies and clinical trials often fail to demonstrate safety or efficacy of the product candidate studied for the target indication. ~~41~~In **34**In addition to side effects caused by the product candidate, the administration process or related procedures also can cause adverse side effects. If any such adverse events occur, our clinical trials could be suspended or terminated. If we cannot demonstrate that any adverse events were not caused by the drug or administration process or related procedures, the FDA, EMA or foreign regulatory authorities could order us to cease further development of, or deny approval of, our product candidates for any or all targeted indications. Even if we are able to demonstrate that all future serious adverse events are not product-related, such occurrences could affect patient recruitment or the ability of enrolled patients to complete the trial. Moreover, if we elect, or are required, to not initiate, delay, suspend or terminate any future clinical trial of any of our product candidates, the commercial prospects of such product candidates may be harmed and our ability to generate product revenues from any of these product candidates may be delayed or eliminated. In addition, these side effects may not be appropriately recognized or managed by the treating medical staff, as toxicities resulting from personalized cell therapy, as with our multiTAA-specific T cell therapy products, are not normally encountered in the general patient population and by medical personnel. Any of these occurrences may harm our ability to develop other product candidates, and may harm our business, financial condition and prospects significantly. If our product candidates are associated with side effects in clinical trials or have characteristics that are unexpected, we may need to~~

abandon their development or limit development to more narrow uses in which the side effects or other characteristics are less prevalent, less severe or more acceptable from a risk- benefit perspective. The FDA or an IRB may also require that we suspend, discontinue, or limit our clinical trials based on safety information, or that we conduct additional animal or human studies regarding the safety and efficacy of our product candidates which we have not planned or anticipated. Such findings could further result in regulatory authorities failing to provide marketing authorization for our product candidates or limiting the scope of the approved indication, if approved. Many product candidates that initially showed promise in early- stage testing have later been found to cause side effects that prevented further development of the product candidate. Additionally, if one or more of our product candidates receives marketing approval, and we or others identify undesirable side effects caused by such products, a number of potentially significant negative consequences could result, including: • regulatory authorities may withdraw approvals of such product; • regulatory authorities may require additional warnings on the labels; • we may be required to create a medication guide outlining the risks of such side effects for distribution to patients or other requirements subject to a REMS; • we could be sued and held liable for harm caused to patients; • we may not be able to achieve or maintain third- party payor coverage and adequate reimbursement; and • our reputation and physician or patient acceptance of our products may suffer. There can be no assurance that we will resolve any issues related to any product- related adverse events to the satisfaction of the FDA or foreign regulatory agency in a timely manner or at all. Moreover, any of these events could prevent us from achieving or maintaining market acceptance of the particular product candidate, if approved, and could significantly harm our business, results of operations and prospects. ~~42We 35We~~ may not obtain or maintain the benefits associated with orphan drug designation, including market exclusivity. Regulatory authorities in some jurisdictions, including the United States and the European Union, may designate drugs for relatively small patient populations as orphan drugs. Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biologic intended to treat a rare disease or condition, which is a disease or condition that affects fewer than 200, 000 individuals in the United States, or more than 200, 000 individuals in the United States for which there is no reasonable expectation that the cost of developing and making available in the United States a drug or biologic for this type of disease or condition will be recovered from sales in the United States for that drug or biologic. Generally, a product that has orphan drug designation and subsequently receives the first FDA approval for the disease for which it has such designation is entitled to orphan drug exclusive approval (or exclusivity), which means that the FDA may not approve any other applications to market the same drug or biologic for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan drug exclusivity. A designated orphan drug may not receive orphan drug exclusivity if it is approved for a use that is broader than the indication for which it received orphan designation. The FDA has granted orphan drug designation for MT- 401 for the treatment of AML after receiving an allogeneic stem cell transplant and for MT- 601 for the treatment of patients with pancreatic cancer. **In 2023, MT- 401 was also granted orphan drug designation by the Committee for Orphan Medicinal Products of the European Medicines Agency (EMA) for the treatment of patients with AML.** We may seek orphan drug designation for other indications or product candidates. Even if we were to obtain orphan drug designation for a product candidate, we may not obtain orphan exclusivity and that exclusivity may not effectively protect the drug from the competition of different drugs for the same condition, which could be approved during the exclusivity period. Additionally, after an orphan drug is approved, the FDA could subsequently approve another application for the same drug for the same indication if the FDA concludes that the later drug is shown to be safer, more effective or makes a major contribution to patient care. Orphan drug exclusive marketing rights in the United States also may be lost if the FDA or European Commission (on the basis of the opinion of the European Medicines Agency, or the EMA), later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the drug to meet the needs of patients with the rare disease or condition. The failure to obtain an orphan drug designation for any product candidates we may develop, the inability to maintain that designation for the duration of the applicable period, or the inability to obtain or maintain orphan drug exclusivity could reduce our ability to make sufficient sales of the applicable product candidate to balance our expenses incurred to develop it, which would have a negative impact on our operational results and financial condition.

~~Risks Related to Manufacturing~~ Establishing and maintaining our own cGMP manufacturing facility is subject to many risks. ~~We rely on third- party vendors and contract manufacturing organizations to design, build, maintain and support our manufacturing and cell processing facilities.~~ **We rely on third- party vendors and contract manufacturing organizations to design, build, maintain and support our manufacturing and cell processing facilities.** In July 2021, we opened an in- house cGMP manufacturing facility in Houston, Texas, **where we manufactured the clinical supply of our product candidates. On June 26, 2023, we completed the previously announced transaction with Cell Ready, LLC (“ Cell Ready ”), pursuant to a Purchase Agreement (the “ Cell Ready Purchase Agreement ”), dated May 1, 2023, by and between us and Cell Ready. Pursuant to the Cell Ready Purchase Agreement, we (i) assigned to Cell Ready the leases for our two manufacturing facilities in Houston, Texas, or the Manufacturing Facilities, (ii) sold to Cell Ready all of the equipment and leasehold improvements at our manufacturing facilities and (iii) assigned to Cell Ready our rights, title and interest in any contracts related to the equipment and manufacturing facilities (collectively referred to as the “ Purchased Assets ”). On February 22, 2024, we entered into a Master Services Agreement for Product Supply (the “ MSA ”) with Cell Ready. Cell Ready, which is now fully operational, owned by one of our directors and shareholders, Mr. John Wilson, is a contract development and manufacturing organization (CDMO). Under the MSA, it is anticipated Cell Ready will perform a wide variety of services for the Phase 2 us, including research and development, and manufacturing in support of our clinical trial trials for the treatment of post- transplant AML. Although we expect Cell Ready’s cGMP We also intend to manufacture clinical supply of our other product candidates in our manufacturing facility to be our primary source of multiTAA- specific T cell therapy- based product candidates and for commercial manufacturing of any products, if approved, we intend to evaluate additional potential third- party manufacturing capabilities in order to provide potential multiple sources of clinical and commercial supply. Even if we can secure multiple sources of clinical and commercial**

supply, third- party manufacturers, such as ~~MT~~ Cell Ready, may not be able to meet our needs concerning timing, quantity, or quality and / or may cease or substantially reduce their business. If we are unable to contract for a sufficient supply of needed materials on acceptable terms, or if we should encounter delays or difficulties in our relationships with manufacturers, our clinical trials may be delayed, thereby delaying the submission of product candidates for regulatory approval or the market introduction and subsequent sales of any approved products. Any such delay may lower our revenues and potential profitability. If any ~~36~~third - party breaches ~~601. Establishing and maintaining our -~~ or terminates its agreement with us or fails to conduct its activities in a timely manner, the commercialization of our product candidates could be slowed down or blocked completely. It is possible that third- parties relied upon by us will change their strategic focus, pursue alternative technologies, or develop alternative product candidates, either on their own or in collaboration with others, as a means for developing treatments for the diseases targeted by our collaborative programs, or for other reasons. The effectiveness of these third parties in marketing their own products may also affect our revenues and earnings. Also, if we enter into additional third- party agreements in the future, we may not be able to negotiate such agreements successfully and, even if established, these relationships may not be scientifically or commercially successful. In the event our relationship with a third- party manufacturing manufacturer facility is subject to terminated or substantially reduced for ~~many - any risks. We~~ reason, it is possible we will not be able to identify an alternative third- party manufacturer within a reasonable period of time, if ever, which would have limited prior experience in establishing a manufacturing facility and, although our facility is fully operational, we may encounter challenges given the complexity of manufacturing cell therapies. We will also compete for the small number of individuals with expertise in cell therapy manufacturing. Even with an ~~adverse effect our operational operations facility.~~ **Additionally**, our manufacturing capabilities could be affected by cost- overruns, unexpected delays, equipment failures, labor shortages, natural disasters, power failures, **competition with other clients**, transportation difficulties and numerous other factors that could prevent us from fully realizing the intended benefits of our manufacturing strategy and have a material adverse effect on our clinical development, **and / or commercialization plans and / or general operations**. In addition, the manufacturing process for any product candidates that we may develop is subject to the FDA and foreign regulatory authority approval process, and we may need to contract with manufacturers who can meet all applicable FDA and foreign regulatory authority requirements on an ongoing basis. If we or our contract manufacturing organizations, or CMOs, **including Cell Ready**, are unable to reliably produce products to specifications acceptable to the FDA or other regulatory authorities, we may not obtain or maintain the approvals we need to commercialize any approved products. Even if we obtain regulatory approval for any of our product candidates, there is no assurance that either we or our CMOs will be able to manufacture the approved product to specifications acceptable to the FDA or other regulatory authorities, to produce it in sufficient quantities to meet the requirements for the potential launch of the product, or to meet potential future demand. Further, we may be required to establish multiple manufacturing facilities to expand our commercial footprint for any approved products, which may lead to regulatory delays or prove costly. Any of these challenges could delay completion of clinical trials, require bridging clinical trials or the repetition of one or more clinical trials, increase clinical trial costs, delay approval of our ~~43~~product -- **product** candidate, impair commercialization efforts, increase our cost of goods, and have an adverse effect on our clinical development and / or commercialization plans. ~~Although we expect~~ **Our manufacturing process is reliant upon specialized equipment, and other specialty materials, which may not be available to us on acceptable terms or in at all. We, our vendors, and contract manufacturing organizations rely or may rely on sole - house cGMP manufacturing facility to be our primary source vendors or a limited number of vendors, which could impair the manufacture and supply of our product candidates. We depend on a limited number of vendors for supply of certain materials and equipment used in the manufacture of our multiTAA- specific T cell therapy- based product candidates and for commercial manufacturing of any products..... T cell therapy- based product candidates.** For example, **in the past**, we ~~purchase~~ **purchased** equipment and reagents critical for the manufacture of our product candidates from Wilson Wolf (a company controlled by our director John Wilson), Almac and other suppliers. **Under the Cell Ready MSA, Cell ready is required to obtain all raw materials and components used in the production of our product candidates, other than as specified in applicable works orders delivered under the MSA.** Some of our **direct or indirect** suppliers may not have the capacity to support commercial products manufactured under cGMP by biopharmaceutical firms or may otherwise be ill- equipped to support our needs. We also may not have supply contracts with many of these suppliers and may not be able to obtain supply contracts with them on acceptable terms or at all. Accordingly, we may not be able to obtain key materials and equipment to support clinical or commercial manufacturing. Further, the FDA may determine that our manufacturing process, or the materials required for the manufacture of our product candidates, are not acceptable, which would require us to find alternative suppliers or processes, which may not be available on favorable terms, if at all. For some of this equipment and materials, we may rely, and may now and / or in the future rely, on sole- source vendors or a limited number of vendors. An inability to continue to source product from any of these suppliers, which could be due to regulatory actions or requirements affecting the supplier, adverse financial, or other strategic developments experienced by a supplier, labor disputes or shortages, unexpected demands, or quality issues, could adversely affect our ability to satisfy demand for our product candidates, which could adversely and materially affect our operating results or our ability to conduct clinical trials, either of which could significantly harm our business. ~~37~~**In the future** ~~As we continue to develop and scale our manufacturing process,~~ we may need to obtain rights to and supplies of specific materials and equipment to be used **as part for the development** of that process **our product candidates**. For example, our multiTAA- specific T cell manufacturing process is based, in part, upon the G- Rex ® cell culture device manufactured by Wilson Wolf, which is used by many cell therapy developers, both in commercial and academic settings. Although we do hold the license to patents from BCM that could be used to prevent third parties from developing similar and competing processes, we do not own any exclusive rights to the G- Rex ®. We may not be able to obtain rights to such materials and equipment on commercially reasonable terms, or at all, and if we are

unable to alter our process in a commercially viable manner to avoid the use of such materials or find a suitable substitute, it would have a material adverse effect on our business. The manufacture of our product candidates is complex, and we may encounter difficulties in production, particularly with respect to process development or scaling up of our manufacturing capabilities. If we, or any of our third- party suppliers, including Cell Ready, encounter such difficulties, the our ability to supply of our product candidates for clinical trials, or our product candidates for patients, if approved, could be delayed or stopped, or we may be unable to maintain a commercially viable cost structure. Our product candidates are biologics, and the process of manufacturing our product candidates is complex, highly regulated and subject to multiple risks. For example, the manufacture of our multiTAA- specific T cell therapy- based product candidates involves complex processes, including drawing blood from patients / donors, manufacturing the clinical product, and ultimately infusing the product into a patient. As a result of the complexities, the cost to manufacture biologics is generally higher than traditional small molecule chemical compounds, and the manufacturing process is less reliable and is more difficult to reproduce. Our manufacturing processes will be susceptible to product loss or failure due to any of the following: logistical issues associated with the collection of blood cells, or starting material, from the patient or a donor, shipping such material to the manufacturing site, shipping the final product back to the patient, and infusing the patient with the product; manufacturing issues associated with the variability in patients' or donor' s starting cells; interruptions in the manufacturing process; contamination; equipment failure; improper installation or operation of equipment, vendor or operator error; inconsistency in cell growth; and variability in product characteristics. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects, and other supply disruptions. If for any reason we lose a patient' s or a donor' s cells, or later- developed product at any point in the process, the manufacturing process for that patient will need to be restarted and the resulting delay may adversely affect that patient' s outcome and / or the results of clinical trials. If microbial, viral, or other contaminations are discovered in our product candidates or in the manufacturing facilities in which our product candidates are made, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination. Because our autologous multiTAA- specific T cell therapy- based product candidates are, MT- 601, is manufactured for each particular patient, we will be required to maintain a chain of identity with respect to the patient' s / donor' s blood cells as it moves from the patient to the manufacturing facility, through the manufacturing process, and back to the patient. Maintaining such a chain of identity is difficult and complex, and failure to do so could result in adverse patient outcomes, loss of product, or regulatory action including withdrawal of our product candidates from the market. Further, as product candidates are developed through preclinical to late- stage clinical trials towards approval and commercialization, it is common that various aspects of the development program, such as manufacturing methods, are altered along the way in order to optimize processes and results. Such changes carry the risk that they will not achieve these intended objectives, and any of these changes could cause our product candidates to perform differently and affect the results of planned clinical trials or other future clinical trials. We Although we currently manufacture have our clinical supply manufactured at our Cell Ready' s manufacturing facilities facility, we and are working to develop our own commercially viable processes, doing Doing so is a difficult and uncertain task, and there are risks associated with scaling to the level required for advanced clinical trials or commercialization, including, among others, cost overruns, potential problems with process scale up, process reproducibility, stability issues, lot consistency, and timely availability of raw materials. As a result of these challenges, we may experience delays in our clinical development and / or commercialization plans. We may ultimately be unable to reduce the cost of goods for our product candidates to levels that will allow for an attractive return on investment if and when those product candidates are commercialized. No assurance can be given that we will be able to develop a new, FDA- compliant, more efficient, lower cost manufacturing process upon which our business plan to commercialize multiTAA- based product candidates is dependent. In cooperation with our current contract manufacturers and suppliers, we developed and have implemented a new nine- day multiTAA- specific T cell manufacturing process for our current Phase 2 AML trial as well as future clinical trials using a patient- specific manufacturing approach or using products manufactured from healthy donors (" Off- the- Shelf "). The new manufacturing process marks additional manufacturing improvements 38improvements compared to the processes used in the BCM Phase 1 and 2 trials (36- day manufacturing time) and the current our previous AML trial reflecting the improved manufacturing process ( 9-20 - day manufacturing time). The new nine- day manufacturing process enables increased antigen specificity and diversity, which has exhibited a strong linear correlation to anti- tumor activity in vitro. The new process produces a patient product that is four times more potent, with the potential to greatly improve tumor killing. This new, scaled- up, pharmaceutical manufacturing process is new and subject to uncertainties. We cannot guarantee that we will be able to more efficiently and cost effectively, and in a more automated manner produce, measure and control the physical and / or chemical attributes of our product candidates in a cGMP facility. We also have never manufactured our adoptive T cell therapy product candidate on a commercial scale. As a result, we cannot give any assurance that we will be able to establish a manufacturing process that can produce our product candidates at a cost or in quantities necessary to make them commercially viable. Moreover, we and our third- party manufacturers will have to continually adhere to current cGMP regulations enforced by the FDA through its facilities inspection program. If these facilities (including our new in- house facility) cannot 45pass -- pass a pre- approval plant inspection, the FDA premarket approval of our product candidates will not be granted. In complying with cGMP and foreign regulatory requirements, we and any of our third- party manufacturers will be obligated to expend time, money and effort in production, record- keeping and quality control to assure that our product candidates meet applicable specifications and other requirements. If we or any of our third- party manufacturers fail to comply with these requirements, we may be subject to regulatory action. No assurance can be given that we or our partners will be able to establish and operate such a production facility. We may have difficulty demonstrating that the product candidates produced from our new processes are identical to the existing products. The FDA may require additional clinical testing before permitting a larger clinical trial with the new processes, and such drug product may not be as efficacious in the new clinical trials. Cellular products are not considered to be well characterized



products because there are hundreds of markers present on T cells, and even small changes in manufacturing processes could alter the cell subtypes. It is unclear at this time which of those markers are critical for success of T cells to combat cancer, so our ability to predict the outcomes with newer manufacturing processes is limited. The changes that we may make to the existing manufacturing process may require additional testing, which may increase costs and timelines associated with these developments. In addition to developing a multi-antigen T cell-based therapy on existing adoptive T cell therapy technology, we are currently evaluating the desirability of conducting clinical trials of our product candidates in combination with other existing drugs. These combination therapies will require additional testing, and clinical trials will require additional FDA regulatory approval and will increase our future cost of development. Risks Related to our Reliance on Third Parties

**Parties We may not realize the expected benefits from the transaction with Cell Ready. We may not be able to achieve the full strategic and financial benefits expected to result from the closing of the transaction with Cell Ready, or such benefits may be delayed or not occur at all. In particular, we have made the strategic decision to dispose of our manufacturing facilities and related assets in order to focus on clinical development of the multiTAA-specific T cell therapy-based product candidates in our pipeline. Following the closing of the transaction, we no longer operate our own cGMP manufacturing facility and must rely on Cell Ready and other third parties for the clinical and, if approved, commercial manufacture of our product candidates. Although we entered into an MSA with Cell Ready for manufacturing, among other services, we may not realize the anticipated cost savings associated with contracting out our manufacturing, and research and development requirements. The assumptions we made related to the Cell Ready transaction may prove to be inaccurate, including including BCM Our and for commercial manufacturing of demands, if at all. Also, if we must increase production capacity for any reason, we may need to make considerable investments that could lead to significant financing needs or require us to enter into subcontracting agreements in order to outsource part of the production products. 39 If Cell Ready or any other, if approved, we intend to evaluate potential third-party contract manufacturing organization on which we rely ceases or reduces its business or experiences capacity constraints, other disruptions, or delays in manufacturing our multiTAA-specific T cell therapy-based product candidates, our planned clinical trials and necessary manufacturing capabilities will be disrupted or delayed in order to provide potential multiple sources of clinical and commercial supply. BCM or other Third third-party manufacturers, if any, may not be able to meet our needs concerning timing, quantity, or quality. Additionally, Cell Ready may engage, be engaged by, or otherwise enter into arrangements with our competitors. If we are unable to contract for a sufficient supply of needed materials on acceptable terms, or if we should encounter delays or difficulties in our relationships with manufacturers, our clinical trials may be delayed, thereby delaying the submission of product candidates for regulatory approval or the market introduction and subsequent sales of any approved products. Any such delay may lower our revenues and potential profitability. If any third-party breaches or terminates its agreement with us or fails to conduct its activities in a timely manner, the commercialization of our product candidates could be slowed down or blocked completely. It is possible that third parties relied upon by us will change their strategic focus, pursue alternative technologies, or develop alternative product candidates, either on their own or in collaboration with others, as a means for developing treatments for the diseases targeted by our collaborative programs, or for other reasons. The effectiveness of these third parties in marketing their own products may also affect our revenues and earnings. Also, if we We intend to continue to enter into additional third-party agreements in the future. However, we may not be able to negotiate such any additional agreements successfully, and, Even even if established, these relationships may not be scientifically or commercially successful. The facilities Our manufacturing process is reliant upon specialized equipment, and other specialty materials, which may not be available to us on acceptable terms or at all. For some of this equipment and materials, we rely or may rely on sole-source vendors or a limited number of vendors, which could impair our ability to manufacture and supply our product candidates. We depend on a limited number of vendors for supply of certain materials and equipment used by in the manufacture of our multiTAA-specific T cell therapy-based product candidates**

strategic relationship with BCM is dependent, in part, upon our ongoing relationship with key medical and scientific personnel and advisors. Our multiTAA-specific T cell therapy has been developed through our collaboration with the Center for Cell and Gene Therapy at BCM, founded by Malcolm K. Brenner, M. D., Ph. D., a recognized pioneer in immuno-oncology. Our strategic relationship with BCM is dependent, in part, on our relationship with certain key employees and advisors, some of whom serve on our Scientific Advisory board, and in particular Dr. Vera, our founder, **President and Chief Operating Executive Officer and Chief Scientific Principal Financial and Accounting Officer.** If Dr. Vera discontinues his employment with us, our relationship with BCM may deteriorate, and our business could be harmed. We may also be dependent on BCM facilities and personnel to conduct research and development and manufacturing activities in the future. Although we have an exclusive license agreement with BCM under which we received a worldwide, exclusive license to BCM's rights in and to three patent families to develop and commercialize the multiTAA-specific T cell product candidates, we will need to enter into additional agreements with BCM with respect to (i) a strategic alliance to advance preclinical research, early stage clinical trials, and **Phase 2** clinical trials with respect to our product candidates, as well as continued access to our clinical data, and (ii) support, including personnel and space at the institution for the foreseeable future. Any delays in entering into new strategic agreements with BCM related to our product candidates could delay the development, manufacture, and clinical trials of our product candidates. An important element of our intellectual property portfolio is to license additional rights and technologies from BCM. Our inability to license the rights and technologies that we have identified, or newly developed multiTAA-specific T cell technology that we may in the future identify, could have a material adverse impact on our ability to complete the development of our product candidates or to develop additional product candidates. No assurance can be given that we will be successful in licensing any additional rights or technologies from BCM and others. Failure to obtain additional rights and licenses may detrimentally affect our planned development of additional product candidates and could increase the cost, and extend the timelines associated with our development of such other product candidates. 46 We We may not be able to establish or maintain the third-party relationships, including strategic collaborations, that are necessary to develop, commercialize and /

or market some or all of our product candidates. We expect to depend on collaborators, partners, licensees, clinical research organizations and other third parties to support our discovery efforts, to formulate product candidates to manufacture our product candidates and to conduct clinical trials for some or all of our product candidates. We cannot guarantee that we will be able to successfully negotiate agreements for or maintain relationships with collaborators, partners, licensees, clinical investigators, vendors and other third parties on favorable terms, if at all. Our ability to successfully negotiate such agreements will depend on, among other things, potential partners' evaluation of the superiority of our technology over competing technologies and the quality of the preclinical and clinical data that it has generated, and the perceived risks specific to developing our product candidates. If we are unable to obtain or maintain these agreements, we may not be able to clinically develop, formulate, manufacture, obtain regulatory approvals for or commercialize our product candidates. Management of any third-party relationships will require significant time and effort from our management team, coordination of our research and development programs with the research and development priorities of our collaborators and effective allocation of our resources to multiple projects. If we continue to enter into research and development collaborations at the early phases of drug development, our success will in part depend on the performance of our corporate collaborators. We will not directly control the amount or timing of resources devoted by our corporate collaborators to activities related to our immunotherapies. Our corporate collaborators may not commit sufficient resources to their research and development programs or the commercialization, marketing or distribution of their immunotherapies. If any corporate collaborator fails to commit sufficient resources, our preclinical or clinical development programs related to this collaboration could be delayed or terminated. Also, our collaborators may pursue existing or other development-stage products or alternative technologies in preference to those being developed in collaboration with us. Finally, if we fail to make required milestones or royalty payments to our collaborators or to observe other obligations in our agreements with them, our collaborators may have the right to terminate those agreements. Our strategy includes eventual substantial reliance upon strategic collaborations for marketing and commercialization of our product candidates, and we may rely even more on strategic collaborations for research, development, marketing and commercialization of our other immunotherapies. If we are unsuccessful in securing such strategic collaborations, we may be unable to commercialize any approved products as we have not yet licensed, marketed or sold any of our immunotherapies or entered into successful collaborations for these services in order to ultimately commercialize our immunotherapies. Establishing strategic collaborations is difficult and time-consuming. Our discussions with potential collaborators may not lead to the establishment of collaborations on favorable terms, if at all. Potential collaborators may reject collaborations based upon their assessment of our financial, clinical, regulatory or intellectual property position. If we successfully establish new collaborations, these relationships may never result in the successful development or commercialization of our immunotherapies or the generation of sales revenue. To the extent that we enter into co-promotion or other collaborative arrangements, our product revenues are likely to be lower than if we directly marketed and sold any products that we may develop. Our employees, independent contractors, consultants, commercial partners and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements. We are exposed to the risk of employee fraud or other illegal activity by our employees, independent contractors, consultants, commercial partners and vendors. Misconduct by these parties could include intentional, reckless and / or negligent conduct that fails to: comply with the laws of the FDA and other similar foreign regulatory bodies, provide true, complete and accurate information to the FDA and other similar foreign regulatory bodies, comply with manufacturing standards we have established, comply with healthcare fraud and abuse laws in the United States and similar foreign fraudulent misconduct laws, or report financial information or data accurately or to disclose unauthorized activities to us. If we obtain FDA approval of any of our product candidates and begin commercializing those products in the United States, our potential exposure under such laws will increase significantly, and our costs associated with compliance with such laws are also likely to increase. These laws may impact, among other things, our current activities with principal investigators and research patients, as well as proposed and future sales, marketing and education programs. In particular, the promotion, sales and marketing of healthcare items and services, as well as certain business arrangements in the healthcare industry, are subject to extensive laws designed to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, structuring and commission(s), certain customer incentive programs and other business arrangements generally. Activities subject to these laws also involve the improper use of information obtained in the course of patient recruitment for clinical trials. ~~47~~Efforts to ensure that our business arrangements comply with applicable healthcare laws may involve substantial costs. It is possible that governmental and enforcement authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other healthcare laws and regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or in asserting our rights, those actions could have a significant impact on our business, including the imposition of significant civil, criminal and administrative penalties, damages, disgorgement, monetary fines, imprisonment, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of our operations, any of which could adversely affect our ability to develop our business. In addition, the approval and commercialization of any of our product candidates outside the United States will also likely subject us to foreign equivalents of the healthcare laws mentioned above, among other foreign laws. Risks Related to the Commercialization of our Product Candidates Our commercial success depends upon attaining significant market acceptance of our product candidates, if approved, among physicians, patients, healthcare payors and the medical community. Even if we obtain regulatory approval for our product candidates, they may not gain market acceptance among physicians, healthcare payors, patients or the medical community. Market acceptance of our product candidates, if we receive approval, depends on a number of factors, including the: ● efficacy and safety of our product candidates as demonstrated in clinical trials and post-marketing experience; ● clinical indications for which our product candidates may be approved; ● acceptance by physicians and patients of our product

candidates as safe and effective; • potential and perceived advantages of our product candidates over alternative treatments; • safety of our product candidates seen in a broader patient group, including our use outside the approved indications should physicians choose to prescribe for such uses; **42** • prevalence and severity of any side effects; • product labeling, or product insert requirements of the FDA or other regulatory authorities; • timing of market introduction of our product candidates as well as competitive products; • cost in relation to alternative treatments; • pricing and the availability of coverage and adequate reimbursement by third- party payors and government authorities; • relative convenience and ease of administration; and • effectiveness of any sales and marketing efforts. If our product candidates are approved but fail to achieve market acceptance among physicians, patients, healthcare payors and the medical community, we may not be able to generate significant revenues, which would compromise our ability to become profitable. The market for any products that we successfully develop will also depend on the cost of the product. We do not yet have sufficient information to reliably estimate what it will cost to commercially manufacture our current product candidates, and the actual cost to manufacture these products could materially and adversely affect the commercial viability of these products. Our goal is to reduce the cost of manufacturing our therapies. However, unless we are able to reduce those costs to an acceptable amount, we may never be able to develop a commercially viable product. If we do not successfully develop and commercialize products based upon our approach or find suitable and economical sources for materials used in the production of our products, we will not become profitable. ~~48~~**Even** -- **Even** if we are successful in getting market approval, commercial success of any of our product candidates will also depend in large part on the availability of coverage and adequate reimbursement from third- party payors, including government payors such as the Medicare and Medicaid programs and managed care organizations, which may be affected by existing and future health care reform measures designed to reduce the cost of health care. Third- party payors could require us to conduct additional studies, including post- marketing studies related to the cost effectiveness of a product, to qualify for reimbursement, which could be costly and divert our resources. If government and other health care payors were not to provide adequate coverage and reimbursement levels for any of our products if approved, market acceptance and commercial success would be reduced. Our multiTAA- specific T cell therapy may be provided to patients in combination with other agents provided by third parties. The cost of such combination therapy may increase the overall cost of multiTAA- specific T cell therapy and may result in issues regarding the allocation of reimbursements between our therapy and the other agents, all of which may adversely affect our ability to obtain reimbursement coverage for the combination therapy from third- party medical insurers. Any product candidates we develop may become subject to unfavorable third- party coverage and reimbursement practices, as well as pricing regulations. Significant uncertainty exists as to the coverage and reimbursement status of any pharmaceutical or biological product for which we obtain regulatory approval. Sales of any product depend, in part, on the extent to which such product will be covered by third- party payors, such as federal, state, and foreign government healthcare programs, commercial insurance and managed healthcare organizations, and the level of reimbursement for such product by third- party payors. In the United States, for example, principal decisions about reimbursement for new products are typically made by the Centers for Medicare & Medicaid Services, or CMS. CMS decides whether and to what extent a new product will be covered and reimbursed under Medicare, and private third- party payors often follow CMS' s decisions regarding coverage and reimbursement to a substantial degree. However, one third- party payor' s determination to provide coverage for a product candidate does not assure that other payors will also provide coverage for the product candidate. Further, no uniform policy for coverage and reimbursement exists in the United States, and coverage and reimbursement can differ significantly from payor to payor. As a result, the coverage determination process is often time- consuming and costly. This process will require us to provide scientific and clinical support for the use of our products to each third- party payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. For products administered under the supervision of a physician, obtaining coverage and adequate reimbursement may be particularly difficult because of the higher prices ~~often~~**often** **30** associated with such drugs. Additionally, separate reimbursement for the product itself or the treatment or procedure in which the product is used may not be available, which may impact physician utilization. We cannot be sure that coverage and reimbursement will be available for any product that we commercialize and, if reimbursement is available, what the level of reimbursement will be. In addition, the U. S. government, state legislatures and foreign governments have continued implementing cost- containment programs, including price controls, restrictions on coverage and reimbursement and requirements for substitution of generic products. Third- party payors are increasingly challenging the prices charged for medical products and services, examining the medical necessity and reviewing the cost effectiveness of pharmaceutical or biological products, medical devices and medical services, in addition to questioning safety and efficacy. Adoption of price controls and cost- containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit sales of any product. Decreases in third- party reimbursement for any product or a decision by a third- party payor not to cover a product could reduce physician usage and patient demand for the product. ~~No regulatory authority has granted approval for a personalized cancer immunotherapy based on a vaccine approach, and there is no model for reimbursement of this type of product.~~ If we are unable to establish or sustain coverage and adequate reimbursement for any product candidates from third- party payors, the adoption of those products and sales revenue will be adversely affected, which, in turn, could adversely affect the ability to market or sell those product candidates, if approved. Coverage policies and third- party payor reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future. ~~49~~**Our** -- **Our** future success is highly dependent upon our key personnel, and our ability to attract, retain, and motivate additional qualified personnel. We will also be required to establish sales and marketing capabilities or enter into agreements with third parties to market and sell any approved products. Our ability to compete in the highly competitive biotechnology and pharmaceutical industries depends upon our ability to attract and retain highly qualified managerial, scientific, and medical personnel. We are highly dependent on our management, scientific, and medical personnel and

consultants, including ~~Peter Hoang~~ **Juan Vera, M. D.**, our President ~~and~~, Chief Executive Officer, ~~and Principal Financial and Accounting~~ **Juan Vera, M. D.**, our Chief Operating Officer ~~and Chief Scientific Officer~~, and **Mythili Koneru, M. D., Ph.D.** our Chief Medical Officer as well as others. The loss of the services of any of our executive ~~officers~~ **officer**, other key employees, and other scientific and medical advisors, and our inability to find suitable replacements could result in delays in product development and harm to our business. We have a priority to quickly train additional qualified scientific and medical personnel to ensure the ability to maintain business continuity. Any delays in training such personnel could delay the development, manufacture, and clinical trials of our product candidates. Our ability to attract and retain highly skilled personnel is critical to our operations and expansion. We face competition for these types of personnel from other biotechnology companies and more established organizations, many of which have significantly larger operations and greater financial, technical, human and other resources than us. We may not be successful in attracting and retaining qualified personnel on a timely basis, on competitive terms, or at all. If we are not successful in attracting and retaining these personnel, or integrating them into our operations, our business, prospects, financial condition and results of operations will be materially adversely affected. In such circumstances, we may be unable to conduct certain research and development programs, unable to adequately manage our clinical trials and development of our product candidates, and unable to adequately address our management needs. We do not currently have an organization for the sale, marketing and distribution of any approved products and the cost of establishing and maintaining such an organization may exceed the cost-effectiveness of doing so. In order to market any products approved by the FDA or comparable foreign regulatory authorities, we must build our sales, marketing, managerial and other non-technical capabilities or make arrangements with third parties to perform these services. If we are unable to establish adequate sales, marketing and distribution capabilities, whether independently or with third parties, we may not be able to generate product revenue and may not become profitable. We will be competing with many companies that currently have extensive and well-funded sales and marketing operations. Without an internal commercial organization or the support of a third party to perform sales and marketing functions, we may be unable to compete successfully against these more established companies. ~~The 44~~ **The** biotechnology and immunotherapy industries are characterized by rapid technological developments and a high degree of competition. We may be unable to compete with more substantial enterprises. The biotechnology and biopharmaceutical industries are characterized by rapid technological developments and a high degree of competition. As a result, our actual or proposed immunotherapies could become obsolete before we recoup any portion of our related research and development and commercialization expenses. Competition in the biopharmaceutical industry is based significantly on scientific and technological factors. These factors include the availability of patent and other protection for technology and products, the ability to commercialize technological developments and the ability to obtain governmental approval for testing, manufacturing and marketing. We compete with specialized biopharmaceutical firms in the United States, Europe and elsewhere, as well as a growing number of large pharmaceutical companies that are applying biotechnology to their operations. Many biopharmaceutical companies have focused their development efforts in the human therapeutics area, including cancer. Many major pharmaceutical companies have developed or acquired internal biotechnology capabilities or made commercial arrangements with other biopharmaceutical companies. These companies, as well as academic institutions, governmental agencies and private research organizations, also compete with us in recruiting and retaining highly qualified scientific personnel and consultants. Our ability to compete successfully with other companies in the pharmaceutical field will also depend to a considerable degree on the continuing availability of capital to us. Potential competitors in the market for treating hematological malignancies **include numerous pharmaceutical and biotechnology companies, as well as academic institutions, private and public research institutions, and government agencies. Treatment of relapsed patients with lymphoma remains a challenge with relatively low overall survival rates. To date, there are four CD19** companies such as Amgen, GlaxoSmithKline, Juno Therapeutics / Celgene / Bristol- ~~directed CAR~~ **Myers Squibb, Kite Pharma / Gilead, Merck, Novartis, Pfizer, and Roche / Genentech, which already have products on the market or in development. Other companies, such as** Adaptimmune, Bluebird Bio and Cellectis, which are focused on genetically engineered T cell technologies to treat cancer, may also be competitors. Furthermore, companies such as Iovance, Immatics, NexImmune, Repertoire Immune Medicines, Tessa Therapeutics and WindMIL Therapeutics are developing non-genetically modified T cell therapies such as tumor-infiltrating lymphocytes (Yescarta, Kymriah, Tecartus, ~~and marrow-infiltrating lymphocytes therapies that~~ **Bryanzi**) approved for **patients with relapsed lymphoma. However, up to 60 % of CD19 CAR T cell treated patients will relapse, particularly in the third line setting (Chong EA et al, N Engl J Med, 2021). This highlights a significant unmet medical need for alternative and more effective treatments. Our multiTAA-specific T cell drug candidates** may compete with our product candidates ~~All these~~ **from a number of** companies, and ~~most~~ **which are developing various types** of our immunotherapies to treat cancer, including non-CD19 targeting CAR T cells that target different antigens beyond CD19, multi-targeted CAR T cells as well as NK-CAR therapies. In addition, bispecific antibodies represent promising therapies for patients with lymphoma and provide competition in ~~other~~ **the oncology space. To date, MT- 601 is the only natural T cell product that targets multiple tumor antigens being explored for CAR relapse patients with lymphoma. Therefore, MT- 601 fills a void in the market by providing much needed treatment to patient population.** ~~current~~ **Current** and potential competitors **may** have substantially greater research and development capabilities and financial, scientific, regulatory, manufacturing, marketing, sales, human resources, and experience than ~~50~~ **we** do. Many of our competitors have several therapeutic products that have already been developed, approved and successfully commercialized, or are in the process of obtaining regulatory approval for their therapeutic products in the United States and internationally. ~~Universities and public and private research institutions in the U. S. and around the world are also potential competitors.~~ While these universities and public and private research institutions primarily have educational objectives, they may develop proprietary technologies that lead to other FDA approved therapies or that secure patent protection that we may need for the development of our technologies and product candidates. ~~Our lead product candidate is a therapy to treat patients with AML after receiving an allogeneic stem cell~~

transplant. Currently, there are numerous companies that are developing various alternate treatments for AML. Accordingly, we face significant competition in the AML treatment space from multiple companies. Even if we obtain regulatory approval for our lead product candidate, the availability and price of competitors' products could limit the demand and the price we will be able to charge for our therapy. We may not be able to implement our business plan if the acceptance of our product candidates is inhibited by price competition or the reluctance of physicians to switch from other methods of treatment to our product, or if physicians switch to other new therapies, drugs or biologic products or choose to reserve our product candidates for use in limited circumstances. We are aware of certain investigational new drugs under development or approved products by competitors that are used for the prevention, diagnosis, or treatment of certain diseases we have targeted for drug development. Various companies are developing biopharmaceutical products that have the potential to directly compete with our immunotherapies even though their approach may be different. The competition comes from both biotechnology firms and from major pharmaceutical companies. Many of these companies have substantially greater financial, marketing, and human resources than us. We also experience competition in the development of our immunotherapies from universities, other research institutions and others in acquiring technology from such universities and institutions. In addition, certain of our immunotherapies may be subject to competition from investigational new drugs and / or products developed using other technologies, some of which have completed numerous clinical trials. The market opportunities for our product candidates may be limited to those patients who are ineligible for or have failed prior treatments and may be small. The FDA often approves new oncology therapies initially only for use in patients with relapsed or refractory metastatic disease. We expect to initially seek approval of our product candidates in this setting. Subsequently, for those product candidates that prove to be sufficiently beneficial, if any, we would expect to seek approval in earlier lines of treatment and potentially as a first line therapy. There is no guarantee, however, that our product candidates, even if approved, would be approved for earlier lines of therapy, and, prior to any such approvals, we may have to conduct additional clinical trials. Our projections of both the number of people who have the cancers we are targeting, as well as the subset of people with these cancers in a position to receive second or third- line therapy, and who have the potential to benefit from treatment with our product candidates, are based on our research and estimates. These estimates have been derived from a variety of sources, including scientific literature, surveys of clinics, patient foundations, or market research by third parties, and may prove to be incorrect. We do not have verifiable internal marketing data regarding the potential size of the commercial market for our product candidates, nor have we obtained independent marketing surveys to verify the potential size of the commercial markets for our current product candidates or any future product candidates. Further, new studies may change the estimated incidence or prevalence of these cancers. The number of treatable patients may turn out to be lower than expected. Additionally, the potentially addressable patient population for our product candidates may be limited or may not be amenable to treatment with our product candidates and may also be limited by the cost of our treatments and the reimbursement of those treatment costs by third- party payors. For instance, we expect our lead product candidate to initially target a small patient population with lymphoma that suffers from AML-relapsed after anti- CD19 CAR T cell therapy. Even if we obtain significant market share for our product candidates, because the potential target populations are might be small, we may never not achieve profitability without obtaining regulatory approval for additional indications, and we may spend large amounts of money trying to obtain approval for product candidates that have an uncertain commercial market. New regulatory pathways for biosimilar competition could reduce the duration of market exclusivity for our products. Under the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, the ACA, there is an abbreviated path in the United States for regulatory approval of products that are demonstrated to be " biosimilar " or " interchangeable " with an FDA- approved biological product. The ACA provides a regulatory mechanism that allows for FDA approval of biologic drugs that are similar to (but not generic copies of) innovative drugs on the basis of less extensive data than is required by a full BLA. Under this regulation, an application for approval of a biosimilar may be filed four years after approval of the innovator product. However, qualified innovative biological products will receive 12 years of regulatory exclusivity, meaning that the FDA may not approve a biosimilar version until 12 years after the innovative biological product was first approved by the FDA. However, the term of regulatory exclusivity may not remain at 12 years in the United States and could be shortened. A number of jurisdictions outside of the United States have also established abbreviated pathways for regulatory approval of biological products that are biosimilar to earlier versions of biological products. For example, the European Union has had an established regulatory pathway for biosimilars since 2005. The increased likelihood of biosimilar competition has increased the risk of loss of innovators' market exclusivity. Due to this risk, and uncertainties regarding patent protection, if one of our late- stage product candidates or other clinical candidates are approved for marketing, it is not possible to predict the length of market exclusivity for any particular product with certainty based solely on the expiration of the relevant patent (s) or the current forms of regulatory exclusivity. It is also not possible to predict changes in United States regulatory law that might reduce biological product regulatory exclusivity. The loss of market exclusivity for a product would likely materially and negatively affect revenues from product sales of that product and thus our financial results and condition. If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit commercialization of our product candidates. We face an inherent risk of product liability as a result of the clinical testing of our product candidates and will face an even greater risk if we commercialize any products. For example, we may be sued if our product candidates cause or are perceived to cause injury or are found to be otherwise unsuitable during clinical testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent to the product, negligence, strict liability or a breach of warranties. Claims could also be asserted under state consumer protection laws. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our product candidates. Even successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in: • decreased demand for our product

candidates; • injury to our reputation; • withdrawal of clinical trial participants; • initiation of investigations by regulators; • costs to defend the related litigation; • a diversion of management's time and our resources; • substantial monetary awards to trial participants or patients; • product recalls, withdrawals or labeling, marketing or promotional restrictions; • loss of revenue; • exhaustion of any available insurance and our capital resources; and ~~52~~ **and** • the inability to commercialize any product candidate. Our inability to obtain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could inhibit or prevent the commercialization of products we develop, alone or with collaborators. Our insurance policies may also have various exclusions, and we may be subject to a product liability claim for which we have no insurance coverage. While we obtained clinical trial insurance for our ~~Phase 2~~ clinical trials, we may have to pay amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts. Even if our agreements with any future collaborators entitle us to indemnification against losses, such indemnification may not be available or adequate should any claim arise. The multiple roles of ~~certain of~~ Dr. Vera, our **President, Chief Scientific Executive Officer, and Chief Operating Principal Financial and Accounting Officer**, could limit his time and availability to us, and create, or appear to create, conflicts of interest. Dr. Vera is a co-founder and director of Allovir Inc., or Allovir. Allovir has technology which is being developed under a license agreement with BCM by the same research group at BCM. Allovir is a clinical-stage biopharmaceutical company that is investigating and developing virus-specific T cell therapy technology for the prevention and / or treatment of viral infections. ~~Accordingly, Dr. Vera may have other commitments that would, at times, limit his availability to us. Other research being conducted by Dr. Vera may, at times, receive higher priority than research on our programs, which may, in turn, delay the development or commercialization of our product candidates.~~ Further, Dr. Vera has certain fiduciary or other obligations to us and certain fiduciary or other obligations to Allovir and BCM. Such multiple obligations may in the future result in a conflict of interest with respect to presenting other potential business opportunities to us or to Allovir. A conflict of interest also may arise concerning the timing and scope of the parties' planned and ongoing clinical trials, investigational new drug application filings and the parties' opportunities for marketing their respective product candidates, as well as ~~our~~ **47our** intellectual property rights with those of Allovir. In addition, he may be faced with decisions that could have different implications for us than for Allovir. Risks Related to Our Intellectual Property If we are unable to protect our proprietary rights, we may not be able to compete effectively or operate profitably. Our commercial success is dependent in part on our ability to obtain, maintain, and enforce the patents and other proprietary rights that we have licensed and may develop, and on our ability to avoid infringing the proprietary rights of others. We generally seek to protect our proprietary position by filing patent applications in the United States and abroad related to our product candidates, proprietary technologies and their uses that are important to our business. Our patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless, and until, patents issue from such applications, and then only to the extent the issued claims are directed to the technology. There can be no assurance that our patent applications or those of our licensor will result in additional patents being issued or that issued patents will afford sufficient protection against competitors with similar technology, nor can there be any assurance that the patents issued will not be infringed, designed around or invalidated by third parties. Even issued patents may later be found invalid or unenforceable or may be modified or revoked in proceedings instituted by third parties before various patent offices or in courts. The degree of future protection for our proprietary rights is uncertain. Only limited protection may be available and may not adequately protect our rights or permit us to gain or keep any competitive advantage. This failure to properly protect the intellectual property rights relating to our product candidates could have a material adverse effect on our financial condition and results of operations. We seek to protect our proprietary technology and processes, in part, by entering into confidentiality agreements with relevant employees, consultants, scientific advisors, and contractors. We also seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of the premises and physical and electronic security of the information technology systems. While we have confidence in these individuals, organizations, and systems, agreements or security measures may be breached, and we may not have adequate remedies for any breach. In addition, trade secrets may otherwise become known or be independently discovered by competitors. To the extent that the consultants, contractors or collaborators use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions. ~~53~~ ~~Although~~ **Although** we have patents and patent applications in other countries, we cannot be certain that the claims in other pending U. S. or European patent applications, international patent applications, and patent applications in certain other foreign territories directed to methods of generating multi-antigen specific T cell product candidates, or our other product candidates, will be considered patentable by the USPTO, courts in the United States or by the patent offices and courts in foreign countries, nor can we be certain that the claims in our issued licensed European patent will not be found invalid or unenforceable if challenged. Most of our intellectual property rights are currently licensed from BCM, so that the preparation and prosecution of these patents and patent applications was not performed by us or under our control. Furthermore, patent law relating to the scope of claims in the biotechnology field in which we operate is still evolving and, consequently, patent positions in our industry may not be as strong as in other more well-established fields. The patent positions of biotechnology companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in biotechnology patents has emerged to date. The patent application process is subject to numerous risks and uncertainties, and there can be no assurance that we or any of our potential future collaborators will be successful in protecting our product candidates by obtaining and defending patents. These risks and uncertainties include the following: • the USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions during the patent process, the noncompliance with which can result in abandonment or lapse of a patent or patent application, and partial or complete loss of patent rights in the relevant jurisdiction; • patent applications may not result in any patents being issued; • patents that may be issued or in-licensed may be challenged, invalidated, modified,

revoked, circumvented, found to be unenforceable or otherwise may not provide any competitive advantage; 48 • our competitors, many of whom have substantially greater resources than us, and many of whom have made significant investments in competing technologies, may seek or may have already obtained patents that will limit, interfere with or eliminate our ability to make, use and sell our potential product candidates; • there may be significant pressure on the U. S. government and international governmental bodies to limit the scope of patent protection both inside and outside the United States for disease treatments that prove successful, as a matter of public policy regarding worldwide health concerns; and • countries other than the United States may have patent laws less favorable to patentees than those upheld by U. S. courts, allowing foreign competitors a better opportunity to create, develop and market competing product candidates. The patent prosecution process is also expensive and time- consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner or in all jurisdictions where protection may be commercially advantageous. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Moreover, in some circumstances, we may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, directed to technology that we license from third parties. We may also require the cooperation of our licensor in order to enforce the licensed patent rights, and such cooperation may not be provided. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. We cannot be certain that patent prosecution and maintenance activities by our licensor have been or will be conducted in compliance with applicable laws and regulations, which may affect the validity and enforceability of such patents or any patents that may issue from such applications. If they fail to do so, this could cause us to lose rights in any applicable intellectual property that we in- license, and as a result our ability to develop and commercialize products or product candidates may be adversely affected and we may be unable to prevent competitors from making, using and selling competing products.

54 In addition, identification of third- party patent rights that may be relevant to our technology is difficult because patent searching is imperfect due to differences in terminology among patents, incomplete databases and the difficulty in assessing the meaning of patent claims. The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability and it is uncertain how much protection, if any, will be given to the patents we have licensed from a licensor if either the licensor or we attempt to enforce the patents and / or if they are challenged in court or in other proceedings, such as oppositions, invalidations, or like proceedings, which may be brought in foreign jurisdictions to challenge the validity of a patent. A third party may challenge our patents, if issued, or the patent rights that we license from others in the courts or patent offices in the United States and abroad. It is possible that a competitor may successfully challenge our patents or that a challenge will result in loss of exclusivity or in patent claims being narrowed, invalidated or held unenforceable, which could limit our ability to stop others from using or commercializing similar or identical products, or limit the duration of the patent protection of our products and product candidates. Moreover, the cost of litigation to defend the validity of patents and to prevent or remedy infringement can be substantial. If the outcome of litigation is adverse to us, third parties may be able to use our patented invention without payment to us. Moreover, it is possible that competitors may infringe our patents or successfully avoid them through design innovation. To stop violation of our patent rights, we may need to file a lawsuit. These lawsuits are expensive and would consume time and other resources, even if we were successful in stopping or remedying the violation of our patent rights. In addition, there is a risk that a court would decide that our patents are not valid and that we do not have the right to stop the other party from using the inventions. There is also the risk that, even if the validity of our patents was upheld, a court would refuse to stop the other party on the ground that its activities are not covered by, that is, do not infringe, our patents. Should third parties file patent applications, or be issued patents claiming technology also used or claimed by our licensor (s) or by us in any future patent application, we may be required to participate in interference proceedings in the USPTO to determine priority of invention for those patents or patent applications that are subject to the first- to- invent law in the United States, or may be required to participate in derivation proceedings in the USPTO for those patents or patent applications that are subject to the “ first- inventor- to- file ” law in the United States. We may be required to participate in such interference or derivation proceedings involving our issued patents and pending applications. We may be required to cease using the technology or to license rights from prevailing third parties as a result of an unfavorable outcome in an interference proceeding or derivation proceeding. A prevailing party in that case may not offer us a license on commercially acceptable terms or on any terms. If 49 If we, our licensing partners, or any potential future collaborator initiates legal proceedings against a third party to enforce a patent directed to one of our product candidates, the defendant could counterclaim that the patent is invalid and / or unenforceable in whole or in part. In patent litigation in the United States, defendant counterclaims alleging invalidity and / or unenforceability are commonplace. Grounds for a validity challenge include an alleged failure to meet any of several statutory requirements, including lack of novelty, non- obviousness or enablement. Grounds for an unenforceability assertion could include an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO or made a misleading statement during prosecution. Third parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re- examination, post grant review, and equivalent proceedings in foreign jurisdictions (e. g., opposition proceedings). Such proceedings could result in revocation or amendment to our patents in such a way that they are no longer directed to our product candidates. The outcome following legal assertions of invalidity and unenforceability is unpredictable, and prior art could render our patents or those of our licensor invalid or could prevent a patent from issuing from one or more of our pending patent applications. There is no assurance that all potentially relevant prior art relating to our patents and patent applications has been found. There is also no assurance that there is not prior art of which we are aware, but which we do not believe affects the validity or enforceability of a claim in our patents and patent applications, which may, nonetheless, ultimately be found to affect the validity or enforceability of a claim. Furthermore, even if our patents are unchallenged, they may not adequately protect our intellectual property, provide exclusivity for our product candidates, prevent others from designing around our claims or provide us with a competitive advantage. If a

defendant were to prevail on a legal assertion of invalidity and / or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our product candidates. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates. Such a loss of patent protection could have a material adverse impact on our business development. ~~55The~~ **The** use of our technologies could potentially conflict with the rights of others. Our potential competitors or other entities may have or acquire patent or proprietary rights that they could enforce against our licensor. There is a substantial amount of litigation, both within and outside the United States, involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interferences, oppositions, reexaminations, inter partes review proceedings and post- grant review, or PGR, proceedings before the USPTO and / or corresponding foreign patent offices. Numerous third- party U. S. and foreign issued patents and pending patent applications exist in the fields in which we are developing product candidates. There may be third- party patents or patent applications with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our product candidates. Such potential third- party patents or patent applications could limit our ability to make, use, sell, offer for sale or import our product candidates and products that may be approved in the future, or impair our competitive position by requiring us to alter our product candidates, pay licensing fees or cease activities. As the biotechnology industry expands and more patents are issued, the risk increases that our product candidates may be subject to claims of infringement of the patent rights of third parties. Because patent applications are maintained as confidential for a certain period of time, until the relevant application is published we may be unaware of third- party patents that may be infringed by commercialization of any of our product candidates, and we cannot be certain that we were the first to file a patent application related to a product candidate or technology. Moreover, because patent applications can take many years to issue, there may be currently- pending patent applications that later issue as patents that our product candidates may infringe. If our product candidates conflict with patent rights of others, third parties could bring legal actions against us or our collaborators, licensees, suppliers or customers, claiming damages and seeking to enjoin manufacturing and marketing of the affected product candidates. If these legal actions are successful, in addition to any potential liability for damages, we could be required to obtain a license in order to continue to manufacture or market the affected product candidates. We may not prevail in any legal action and a required license under the patent may not be available on acceptable terms or at all. Changes in U. S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our product candidates. As is the case with other biopharmaceutical companies, our success is dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involves both technological and legal complexity, and is therefore costly, time- consuming and inherently uncertain. Changes in either the patent laws or in the interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property. We cannot predict the breadth of claims that may be allowed or ~~enforced~~ **enforced** in our patents or in third- party patents. For example, on September 16, 2011, the Leahy- Smith America Invents Act, or Leahy- Smith Act, was signed into law. The Leahy- Smith Act includes a number of significant changes to U. S. patent law. These include provisions that affect the way patent applications are prosecuted and may also affect patent litigation. In particular, under the Leahy- Smith Act, the United States transitioned in March 2013 to a “ first inventor to file ” system in which the first inventor to file a patent application will be entitled to the patent. Third parties are allowed to submit prior art before the issuance of a patent by the USPTO and may become involved in post- grant proceedings including post grant review, derivation, reexamination, inter- partes review or interference proceedings challenging our patent rights or the patent rights of others. An adverse determination in any such submission, proceeding or litigation could reduce the scope or enforceability of, or invalidate, our patent rights, which could adversely affect our competitive position. In addition, recent U. S. Supreme Court rulings on several patent cases have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U. S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future. While we do not believe that any of the patents owned or licensed by us will be found invalid based on these decisions, we cannot predict how future decisions by the courts, the U. S. Congress or the USPTO may impact the value of our patents. ~~56We~~ **We** have limited foreign intellectual property rights and may not be able to protect our intellectual property rights throughout the world. ~~We have limited intellectual property rights outside the United States.~~ Filing, prosecuting and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States may be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from practicing its inventions in all countries outside the United States, or from selling or importing products made using its inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and further, may export otherwise infringing products to territories where we have patent protection, but enforcement is not as strong as that in the United States. These products may compete with our products and patents or other intellectual property rights may not be effective or sufficient to prevent them from competing. Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets and other intellectual property protection, particularly those relating to biopharmaceutical products, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and



attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful.

Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license. For example, the complexity and uncertainty of European patent laws have also increased in recent years. In Europe, a new unitary patent system ~~was~~ **will likely be** introduced by the end of 2023, which ~~would~~ **significantly impact** European patents, including those granted before the introduction of such a system. Under the unitary patent system, European applications will have the option, upon grant of a patent, of becoming a Unitary Patent which will be subject to the jurisdiction of the Unitary Patent Court, or UPC. As the UPC is a new court system, there is no precedent for the court, increasing the uncertainty of any litigation. Patents granted before the implementation of the UPC will have the option of opting out of the jurisdiction of the UPC and remaining as national patents in the UPC countries. Patents that remain under the jurisdiction of the UPC will be potentially vulnerable to a single UPC- based revocation challenge that, if successful, could invalidate the patent in all countries who are signatories to the UPC. We cannot predict with certainty the long- term effects of any potential changes. ~~We~~ **51We** may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties. As is common in the biotechnology and pharmaceutical industries, in addition to our employees, we engage the services of consultants to assist us in the development of our product candidates. We have received confidential and proprietary information from third parties. We employ individuals or engage consultants who were previously employed at other biotechnology or pharmaceutical companies. We may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed confidential information of these third parties or our employees' former employers. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial cost and be a distraction to our management and employees. If we fail to comply with any obligations under our existing license agreements or any future license agreements, or disputes arise with respect to those agreements, it could have a negative impact on our business and our intellectual property rights. We are a party to license agreements with BCM that impose, and we may enter into additional licensing arrangements with third parties that may impose, diligence, development and commercialization timelines, milestone payment, royalty, insurance and other obligations on us. Our rights to use the licensed intellectual property are subject to the continuation of and our compliance with the terms of these agreements. Disputes may arise regarding our rights to intellectual property licensed to us from a third ~~-~~ party, including but not limited to: ~~57~~ **57** • the scope of rights granted under the license agreement and other interpretation- related issues; • the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement; • the sublicensing of patent and other rights; • our diligence obligations under the license agreement and what activities satisfy those diligence obligations; • the ownership of inventions and know- how resulting from the creation or use of intellectual property by us, alone or with our licensors and collaborators; • the scope and duration of our payment obligations; • our rights upon termination of such agreement; and • the scope and duration of exclusivity obligations of each party to the agreement. If disputes over intellectual property and other rights that we have licensed or acquired from third parties prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates. If we fail to comply with our obligations under current or future licensing agreements, these agreements may be terminated or the scope of our rights under them may be reduced and we might be unable to develop, manufacture or market any product that is licensed under these agreements. Under our license agreement with BCM for our multiTAA- specific T cell therapy technologies, we are currently required to pay both substantial milestone payments and royalties to BCM based on our revenues from sales of any approved products utilizing the licensed technologies, and these payments could adversely affect the overall profitability for us of any products that we may seek to commercialize. In order to maintain our license rights under the BCM license agreement, we will need to meet certain specified milestones, subject to certain cure provisions, in the development of our product candidates. In addition, upon a liquidity event (as defined in our BCM license agreement with BCM) of the licensee under the BCM license agreement (which, the licensee shall be the Company), BCM will receive a liquidity incentive payment of 0. 5 % of the liquidity event ~~proceeds~~ **52proceeds** (as defined in the BCM license agreement) received by such licensee or its stockholders in the liquidity event, thereby diluting the amount of proceeds available to the licensee or its stockholders in a liquidity event. We may be subject to claims challenging the inventorship or ownership of our patents and other intellectual property. We may be subject to claims that former employees, collaborators or other third parties have an ownership interest in our patents or other intellectual property. Litigation may be necessary to defend against these and other claims challenging inventorship or ownership. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and distraction to management and other employees. Patent terms may be inadequate to protect our competitive position on our product candidates for an adequate amount of time. Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest U. S. non- provisional filing date. Various extensions may be available, but the life of a patent, and the protection it affords, is limited. Even if patents covering our product candidates are obtained, once the patent life has expired, we may be subject to competition from competitive products, including biosimilars. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our owned and licensed patent portfolio may not provide sufficient rights to exclude others from commercializing products similar or identical to our product candidates. ~~58Certain~~ **58Certain** of our technologies are in- licensed from third parties, and the protection of those technologies is not entirely within our control. We have a world- wide exclusive license from

BCM of the rights in and to three patent families to develop and commercialize multiTAA- specific T cell product candidates in the field of oncology. As a result of these in- licenses, we could lose the right to develop each of the technologies if: ● the owner (s) of the patent rights underlying the technologies that we license do not properly maintain or enforce the patents and intellectual property underlying those properties, ● BCM seeks to terminate our license in contravention of the license agreements; ● we fail to make all payments due and owing under any of the licenses; or ● we fail to obtain on commercially reasonable terms, if at all, in- licenses from BCM or others for other rights that are necessary to develop the technology that we have already in- licensed. If any of the above occurs, we could lose the right to use the in- licensed intellectual property, which would adversely affect our ability to commercialize our technologies, products or services. The loss of any current or future licenses from BCM, or the exclusivity rights provided by such license agreements, could materially harm our financial condition and operating results. We-53We rely upon patents and licensed technologies to protect our technology. We may be unable to protect our intellectual property rights, and we may be liable for infringing the intellectual property rights of others. Our ability to compete effectively depends on our ability to maintain the proprietary nature of our technologies and the proprietary technology of others with whom we have entered into collaboration and licensing agreements. We own or hold licenses to a number of issued patents and U. S. pending patent applications, as well as foreign patents and foreign counterparts. Our success depends in part on our ability to obtain patent protection both in the United States and abroad for our product candidates, as well as the methods for treating patients in the product indications using these product candidates. Such patent protection is costly to obtain and maintain, and sufficient funds might not be available. Our ability to protect our product candidates from unauthorized or infringing use by third parties depends in substantial part on our ability to obtain and maintain valid and enforceable patents. Due to evolving legal standards relating to the patentability, validity and enforceability of patents covering pharmaceutical inventions and the scope of claims made under these patents, our ability to obtain, maintain and enforce patents is uncertain and involves complex legal and factual questions. Even if our product candidates, as well as methods for treating patients for prescribed indications using these product candidates are covered by valid and enforceable patents and have claims with sufficient scope, disclosure and support in the specification, the patents will provide protection only for a limited amount of time. Accordingly, rights under any issued patents may not provide us with sufficient protection for our product candidates or provide sufficient protection to afford us a commercial advantage against competitive products or processes. In addition, we cannot guarantee that any patents will be issued from any pending or future patent applications owned by or licensed to us. Even if patents have been issued or will be issued, we cannot guarantee that the claims of these patents are or will be valid or enforceable or will provide us with any significant protection against competitive products or otherwise be commercially valuable to us. The laws of some foreign jurisdictions do not protect intellectual property rights to the same extent as in the United States and many companies have encountered significant difficulties in protecting and defending such rights in foreign jurisdictions. Furthermore, different countries have different procedures for obtaining patents, and patents issued in different countries offer different degrees of protection against use of the patented invention by others. If we encounter such difficulties in protecting or are otherwise precluded from effectively protecting our intellectual property rights in foreign jurisdictions, our business prospects could be substantially harmed. The patent positions of biotechnology and pharmaceutical companies, including our patent positions, involve complex legal and factual questions, and, therefore, validity and enforceability cannot be predicted with certainty. Patents may be challenged, deemed unenforceable, invalidated, or circumvented. Our patents can be challenged by our competitors who can argue that our patents are invalid and / or unenforceable, or that the patent claims should be limited or narrowly construed. Patents also will not protect our product candidates if competitors devise ways of making or using these product candidates without infringing our patents. We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our technologies, methods of treatment, 59product-- product candidates, and any future products are covered by valid and enforceable patents or are effectively maintained as trade secrets and we have the funds to enforce our rights, if necessary. The expiration of our owned or licensed patents before completing the research and development of our product candidates and receiving all required approvals in order to sell and distribute the products on a commercial scale can adversely affect our business and results of operations. We-54We may be involved in lawsuits to protect or enforce our patents or the patents of our licensor, which could be expensive, time- consuming and unsuccessful. We may face legal claims involving stockholders, consumers, competitors, entities from whom we license technology, entities with whom we collaborate, persons claiming that we are infringing on their intellectual property and others. The biotechnology and pharmaceutical industries have been characterized by extensive litigation regarding patents and other intellectual property rights, and companies have employed intellectual property litigation to gain a competitive advantage. Competitors may infringe our intellectual property rights or those of our licensor. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time- consuming. In addition, in a patent infringement proceeding, a court may decide that one or more of the patents which we own or in- license is not valid or is unenforceable, and / or is not infringed. An adverse result in any litigation or defense proceedings could put one or more of our patents at risk of being invalidated, held unenforceable, or interpreted narrowly and could put our patent applications at risk of not issuing. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business. In addition, litigation may be necessary to enforce our issued patents, to protect our trade secrets and know- how, or to determine the enforceability, scope, and validity of the proprietary rights of others. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties or redesign our infringing products, which may be impossible or require substantial time and monetary expenditure. Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on any issued patent and / or pending patent applications will be due to the USPTO and foreign patent agencies in several stages over the lifetime of our patents and /

or applications. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. We employ reputable law firms and other professionals to help us comply, and in many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with rules applicable to the particular jurisdiction. However, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Noncompliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. In such an event, our competitors might be able to enter the market, which would have a material adverse effect on our business development. Interference or derivation proceedings provoked by third parties or brought by us or declared by the USPTO may be necessary to determine the priority of inventions with respect to our patents or patent applications or those of our licensor. Should third parties file patent applications or be issued patents claiming technology also used or claimed by us, we may be required to participate in interference or derivation proceedings in the USPTO to determine priority of invention. We may be required to participate in interference or derivation proceedings involving our issued patents and pending applications. An unfavorable outcome could require us to cease using the related technology or to attempt to license rights from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially acceptable terms. The costs of litigation or any proceeding relating to our intellectual property or contractual rights could be substantial even if resolved in our favor. Some of our competitors or financial funding sources have far greater resources than we do and may be better able to afford the costs of complex legal procedures. Also, in a lawsuit for infringement or contractual breaches, even if frivolous, we will require considerable time commitments on the part of management, our attorneys and consultants. Defending these types of proceedings or legal actions involve considerable expense and could negatively affect our financial results. ~~60~~**We** may be unable to adequately prevent disclosure of trade secrets and other proprietary information. We also rely on trade secrets to protect our proprietary technologies, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. We rely in part on confidentiality agreements with our employees, consultants, outside scientific collaborators, sponsored researchers, and other advisors to protect our trade secrets and other proprietary information. These agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, others may independently discover our trade secrets and proprietary information. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position. ~~55~~**If** we are unable to obtain licenses needed for the development of our product candidates, or if we breach any of the agreements under which we license rights to patents or other intellectual property from third parties, we could lose license rights that are important to our business. If we are unable to maintain and / or obtain licenses needed for the development of our product candidates in the future, we may have to develop alternatives to avoid infringing on the patents of others, potentially causing increased costs and delays in product development and introduction or precluding the development, manufacture, or sale of planned product candidates. Some of our licenses provide for limited periods of exclusivity that require minimum license fees and payments and / or may be extended only with the consent of the licensor. We might not meet these minimum license fees in the future, or these third parties might not grant extensions on any or all such licenses. This same restriction may be contained in licenses obtained in the future. Additionally, the patents underlying the licenses might not be valid and enforceable. To the extent any product candidates developed by us are based on licensed technology, royalty payments on the licenses will reduce our gross profit from such product sales and may render the sales of such product candidates uneconomical. In addition, the loss of any current or future licenses or the exclusivity rights provided therein could materially harm our business financial condition and our operations. Risks Related to Government Regulation We are subject to extensive regulation, which can be costly, time consuming and can subject us to unanticipated delays. Even if we receive regulatory approval of our product candidates, we will be subject to ongoing quality and regulatory obligations and continued regulatory review, which may result in significant additional expense, and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our product candidates. All of our current and future product candidates, cell processing and manufacturing activities, are subject to comprehensive regulation by the FDA in the United States and by comparable authorities in other countries. The process of obtaining FDA and other required regulatory approvals, including foreign approvals, is expensive and often takes many years and can vary substantially based upon the type, complexity and novelty of the products involved. In addition, regulatory agencies may lack experience with our technologies and product candidates, which may lengthen the regulatory review process, increase our development costs and delay or prevent their commercialization. No adoptive T cell therapy using multiTAA-specific T cells has been approved for marketing in the U. S. by the FDA. Consequently, there is no precedent for the successful commercialization of products based on our technologies. In addition, we have had only limited experience in filing and pursuing applications necessary to gain regulatory approvals, which may impede our ability to obtain timely FDA approvals, if at all. We have not yet sought FDA approval for any adoptive T cell therapy product. We will not be able to commercialize any of our potential product candidates until we obtain FDA approval, and so any delay in obtaining, or inability to obtain, FDA approval would harm our proposed business. ~~64~~**If** we violate regulatory requirements at any stage, whether before or after marketing approval is obtained, we may be fined, forced to remove a product from the market and experience other adverse consequences including delay, which could materially harm our business development. Additionally, we may not be able to obtain the labeling claims necessary or desirable for the promotion of our products. We may also be required to undertake post-marketing trials. Prescription drugs may be promoted only for the approved indications in accordance with the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label

may be subject to significant liability. However, physicians may, in their independent medical judgment, prescribe legally available products for off- label uses. The FDA does not regulate the behavior of physicians in their choice of treatment but the FDA does restrict manufacturer' s communications on the subject of off- label use of their products. In addition, if we or others identify side effects after any of our adoptive T cell therapy products are on the market, or if manufacturing problems occur, regulatory approval may be withdrawn, and reformulation of our products may be required. Any 56Any regulatory approvals that we receive for our product candidates will require surveillance to monitor the safety and efficacy of the product candidate. The FDA may also require a risk evaluation and mitigation strategy in order to approve our product candidates, which could entail requirements for a medication guide, physician communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. In addition, if the FDA or a comparable foreign regulatory authority approves our product candidates, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion, import, export and recordkeeping for our product candidates will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with cGMPs and cGCPs for any clinical trials that we conduct post- approval. Later discovery of previously unknown problems with our product candidates, including adverse events of unanticipated severity or frequency, or with our third- party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things: • restrictions on the marketing or manufacturing of our product candidates, withdrawal of the product from the market, or voluntary or mandatory product recalls; • fines, warning letters or holds on clinical trials; • refusal by the FDA to approve pending applications or supplements to approved applications filed by us or suspension or revocation of license approvals; • product seizure or detention, or refusal to permit the import or export of our product candidates; and • injunctions or the imposition of civil or criminal penalties. The FDA' s and other regulatory authorities' policies may change, and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained, and we may not achieve or sustain profitability. Obtaining and maintaining regulatory approval of our product candidates in one jurisdiction does not mean that we will be successful in obtaining regulatory approval of our product candidates in other jurisdictions. Obtaining and maintaining regulatory approval of our product candidates in one jurisdiction does not guarantee that we will be able to obtain or maintain regulatory approval in any other jurisdiction, while a failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory approval process in others. For example, even if the FDA grants marketing approval of a product candidate, comparable regulatory authorities in foreign jurisdictions must also approve the manufacturing, marketing and promotion of the product candidate in those countries. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from, and greater than, those in the United States, including additional preclinical studies or clinical trials as clinical studies conducted in one jurisdiction may not be accepted by regulatory authorities in other jurisdictions. In many jurisdictions outside the United States, a product candidate must be approved for reimbursement before it can be approved for sale in that jurisdiction. In some cases, the price that we intend to charge for our products is also subject to approval. 62We We may also submit marketing applications in other countries. Regulatory authorities in jurisdictions outside of the United States have requirements for approval of product candidates with which we must comply prior to marketing in those jurisdictions. Obtaining foreign regulatory approvals and compliance with foreign regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of our products in certain countries. If we fail to comply with the regulatory requirements in international markets and / or fail to receive applicable marketing approvals, our target market will be reduced and our ability to realize the full market potential of any approved product candidates will be harmed. Any 57Any relationships with healthcare professionals, principal investigators, consultants, customers (actual and potential) and third- party payors in connection with our current and future business activities are and will continue to be subject, directly or indirectly, to federal and state healthcare laws. If we are unable to comply, or have not fully complied, with such laws, we could face penalties, contractual damages, reputational harm, diminished profits and future earnings and curtailment or restructuring of our operations. Our business operations and activities may be directly, or indirectly, subject to various federal and state healthcare laws, including without limitation, fraud and abuse laws, false claims laws, data privacy and security laws, as well as transparency laws regarding payments or other items of value provided to healthcare providers. These laws may restrict or prohibit a wide range of business activities, including, but not limited to, research, manufacturing, distribution, pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. These laws may impact, among other things, our current activities with principal investigators and research subjects, as well as current and future sales, marketing, patient co-payment assistance and education programs. Such laws include: • the federal Anti- Kickback Statute which prohibits, among other things, persons and entities from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under a federal healthcare program such as Medicare and Medicaid; • the federal civil and criminal false claims laws, including the federal civil False Claims Act, and civil monetary penalties laws, which impose criminal and civil penalties against individuals or entities for, among other things, knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government; • the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which imposes criminal and civil liability for, among other things, executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare

matters; ● HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and its implementing regulations, which also imposes obligations, including mandatory contractual terms, on covered entities, including certain healthcare providers, health plans, and healthcare clearinghouses, and their respective business associates that create, receive, maintain or transmit individually identifiable health information for or on behalf of a covered entity as well as their covered subcontractors, with respect to safeguarding the privacy, security and transmission of individually identifiable health information; ● the federal Physician Payments Sunshine Act, which requires certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, with specific exceptions, to report annually to CMS, information related to payments or other transfers of value made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), other health care professionals) (such as physician assistants and nurse practitioners) and teaching hospitals, as well as information regarding ownership and investment interests held by physicians and their immediate family members; and ● analogous state, local, and foreign laws and regulations, such as state anti-kickback and false claims laws, which may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government; state ~~63 laws~~ **laws** that require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures or drug pricing; state and local laws that require the registration of pharmaceutical sales representatives; state and local "drug takeback" laws and regulations; and state and foreign laws governing the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts. ~~Efforts 58~~ **Efforts** to ensure that our business arrangements will comply with applicable healthcare laws may involve substantial costs. While our interactions with healthcare professionals have been structured to comply with these laws and related guidance, it is possible that governmental and enforcement authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other healthcare laws. If our operations or activities are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to, without limitation, significant civil, criminal and administrative penalties, damages, monetary fines, disgorgement, imprisonment, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws, contractual damages, reputational harm, diminished profits and future earnings and curtailment or restructuring of our operations, any of which could adversely affect our ability to operate. In addition, any sales of our product once commercialized outside the U. S. will also likely subject us to foreign equivalents of the healthcare laws mentioned above, among other foreign laws. Recently enacted and future legislation in the United States and other countries may affect the prices we may obtain for our product candidates and increase the difficulty and cost to commercialize our product candidates. In the United States and many other countries, rising healthcare costs have been a concern for governments, patients and the health insurance sector, which has resulted in a number of changes to laws and regulations, and may result in further legislative and regulatory action regarding the healthcare and health insurance systems that could affect our ability to profitably sell any product candidates for which we have obtained marketing approval. For example, the ACA was enacted in the United States in March 2010, with the stated goals of containing healthcare costs, improving quality and expanding access to healthcare, and includes measures to change health care delivery, increase the number of individuals with insurance, ensure access to certain basic health care services, and contain the rising cost of care. There have been judicial, Congressional and executive branch challenges to certain aspects of the ACA. For example, Congress considered legislation that would repeal or repeal and replace all or part of the ACA. While Congress has not passed repeal legislation, several bills affecting the implementation of certain taxes under the ACA have been signed into law. The Tax Cuts and Jobs Act of 2017 includes a provision that repealed, effective January 1, 2019, the tax-based shared responsibility payment imposed by the ACA on certain individuals who fail to maintain qualifying health coverage for all or part of a year that is commonly referred to as the "individual mandate". Additionally, the 2020 federal spending package permanently eliminated, effective January 1, 2020, the ACA-mandated "Cadillac" tax on high-cost employer-sponsored health coverage and medical device tax and, effective January 1, 2021, also eliminates the health insurer tax. On June 17, 2021, the U. S. Supreme Court dismissed a challenge on procedural grounds that argued the ACA is unconstitutional in its entirety because the "individual mandate" was repealed by Congress. Further, on August 16, 2022, President Biden signed the Inflation Reduction Act of 2022, or IRA, into law, which among other things, extends enhanced subsidies for individuals purchasing health insurance coverage in ACA marketplaces through plan year 2025. The IRA also eliminates the "donut hole" under the Medicare Part D program beginning in 2025 by significantly lowering the beneficiary maximum out-of-pocket cost and creating a new manufacturer discount program. It is possible that the ACA will be subject to judicial or Congressional challenges in the future. It is also unclear how such challenges and the healthcare reform measures of the Biden administration will impact the ACA and our business. ~~64 In 59~~ **In** addition, other federal health reform measures have been proposed and adopted in the United States. For example, as a result of the Budget Control Act of 2011 and subsequent legislative amendments thereto, including the Infrastructure Investment and Jobs Act, providers are subject to Medicare payment reductions of 2 % per fiscal year until 2031, unless additional Congressional action is taken. Under current legislation the actual reduction in Medicare Payments will vary from 1 % in 2022 to up to 3 % in the fiscal year of this sequester. Further, the American Taxpayer Relief Act of 2012 reduced Medicare payments to several providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. The Medicare Access and CHIP Reauthorization Act of 2015 ended the use of the statutory formula, also referred to as the Sustainable Growth Rate, for clinician payment and also introduced a quality payment program, or the Quality Payment Program, under which certain

individual Medicare providers will be subject to certain incentives or penalties based on new program quality standards. This Quality Payment Program provides clinicians with two ways to participate, including through the Advanced Alternative Payment Models, or APMs, and the Merit- based Incentive Payment System, or MIPS. In November 2019, CMS issued a final rule finalizing the changes to the Quality Payment Program. It is still unclear how the introduction of the Quality Payment Program will impact overall physician reimbursement under the Medicare program. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. Additionally, on March 11, 2021, President Biden signed the American Rescue Plan Act of 2021 into law, which eliminates the statutory Medicaid drug rebate cap, currently set at 100 % of a drug’ s average manufacturer price, for single source and innovator multiple source drugs, beginning January 1, 2024. Also, there has been heightened governmental scrutiny recently over pharmaceutical pricing practices in light of the rising cost of prescription drugs and biologics. Such scrutiny has resulted in several recent Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for products. At the federal level, for example, in July 2021, the Biden administration released an executive order, “ Promoting Competition in the American Economy, ” with multiple provisions aimed at prescription drugs. In response to Biden’ s executive order, on September 9, 2021, the Department of Health and Human Services, or HHS, released a Comprehensive Plan for Addressing High Drug Prices that outlines principles for drug pricing reform and sets out a variety of potential legislative policies that Congress could pursue as well as potential administrative actions HHS can take to advance these principles. In addition, the IRA, among other things (i) directs HHS to negotiate the price of certain high- expenditure, single- source drugs and biologics covered under Medicare and (ii) imposes rebates under Medicare Part B and Medicare Part D to penalize price increases that outpace inflation. These provisions will take effect progressively starting in fiscal year 2023, although they may be subject to legal challenges. It is currently unclear how the IRA will be implemented but it is likely to have a significant impact on the pharmaceutical industry. In addition, the Biden administration released an additional executive order on October 14, 2022, directing HHS to report on how the Center for Medicare and Medicaid Innovation can be further leveraged to test new models for lowering drug costs for Medicare and Medicaid beneficiaries. At the state level, legislatures have increasingly passed legislation and implemented regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. The combination of healthcare cost containment measures, increased health insurance costs, reduction of the number of people with health insurance coverage, as well as future legislation and regulations focused on reducing healthcare costs by reducing the cost of, or reimbursement and access to, pharmaceutical products, may limit or delay our ability to commercialize our products, generate revenue or attain profitability. As described above, the ACA and potential regulations thereunder easing the entry of competing follow- on biologics into the marketplace, other new legislation or implementation of existing statutory provisions on importation of lower- cost competing drugs from other jurisdictions, and legislation on comparative effectiveness research are examples of previously enacted and possible future changes in laws that could adversely affect our business. We expect that additional state and federal healthcare reform measures will continue to be adopted in the future. While it is not possible to predict whether and when any such changes will occur, changes in the laws, regulations, and policies governing the development and approval of our product candidates and the commercialization, importation, and reimbursement of our product candidates could adversely affect our business. **65**We **60**We are subject to stringent and changing laws, regulations, rules, contractual obligations, policies and other obligations related to data privacy and security. Our actual or perceived failure to comply with such obligations could lead to regulatory investigations or regulatory investigations or actions; litigation; fines and penalties; disruptions of our business operations; reputational harm; loss of revenue or profits; loss of customers or sales; and other adverse business consequences. In the ordinary course of our business, we may collect, receive, store, process, generate, use, transmit, disclose, make accessible, protect, secure, dispose of, share (collectively, processing) personal data and other sensitive data, including proprietary and confidential business data, intellectual property, trade secrets, data regarding clinical trial subjects, and sensitive third- party data. We may rely on third parties (such as service providers) for our data processing- related activities. Our data processing activities subject us to numerous data privacy and security obligations, such as various laws, regulations, guidance, industry standards, external and internal privacy and security policies, contracts, and other obligations that govern the processing of personal data by us and on our behalf. In the United States, federal, state, and local governments have enacted numerous data privacy and security laws, including data breach notification laws, personal data privacy laws, and consumer protection laws. For example, HIPAA, as amended by HITECH, imposes specific requirements relating to the privacy, security, and transmission of individually identifiable health information. Additionally, the California Consumer Privacy Act of 2018, or CCPA, applies to personal data of consumers, business representatives, and employees, and requires businesses to provide specific disclosures in privacy notices and honor requests of California residents to exercise certain privacy rights. The CCPA provides for civil penalties of up to \$ 7, 500 per violation and allows private litigants affected by certain data breaches to recover significant statutory damages. Although the CCPA exempts some data processed in the context of clinical trials, the CCPA increases compliance costs and potential liability with respect to other personal data we maintain about California residents. In addition, California Privacy Rights Act of 2020, or CPRA, expands the CCPA’ s requirements, including by adding a new right for individuals to correct their personal data and establishing a new regulatory agency to implement and enforce the law. Other states, such as Virginia and Colorado, have also passed comprehensive privacy laws, and similar laws are being considered in several other states, as well as at the federal and local levels. While these states, like the CCPA, also exempt some data processed in the context of clinical trials, these developments further complicate compliance efforts and increase legal risk and compliance costs for us and the third parties upon whom we rely. Outside the United States, an increasing number of laws,

regulations, and industry standards apply to data privacy and security. For example, the European Union’s General Data Protection Regulation (“ EU GDPR ”), the United Kingdom’s GDPR (“ UK GDPR ”), Brazil’s General Data Protection Law (Lei Geral de Proteção de Dados Pessoais, or “ LGPD ”) (Law No. 13, 709 / 2018), and China’s Personal Information Protection Law (“ PIPL ”) impose strict requirements for processing personal data. For example, under the EU GDPR, companies may face temporary or definitive bans on data processing and other corrective actions, fines of up to 20 million euros or 4 % of annual global revenue, whichever is greater, or private litigation related to processing of personal data brought by classes of data subjects or consumer protection organizations authorized at law to represent their interests. We are also bound by contractual obligations related to data privacy and security, and our efforts to comply with such obligations may not be successful. For example, certain privacy laws, such as the CCPA, require our customers to impose specific contractual restrictions on their service providers. We publish privacy policies, marketing materials and other statements, regarding data privacy and security. If these policies, materials or statements are found to be deficient, lacking in transparency, deceptive, unfair, or misrepresentative of our practices, we may be subject to investigation, enforcement actions by regulators or other adverse consequences. Obligations related to data privacy and security are quickly changing, becoming increasingly stringent, and creating regulatory uncertainty. Additionally, these obligations may be subject to differing applications and interpretations, which may be inconsistent or conflict among jurisdictions. Preparing for and complying with these obligations requires us to devote significant resources, which may necessitate changes to our services, information technologies, systems, and practices and to those of any third parties that process personal data on our behalf. We may at times fail (or be perceived to have failed) in our efforts to comply with our data privacy and security obligations. Moreover, despite our efforts, our personnel or third parties on whom we rely may fail to comply with such obligations, which could negatively impact our business operations. If we or the third parties on which we rely fail, or are perceived to have failed, to address or comply with applicable data privacy and security obligations, we could face significant consequences, including but not limited to: government enforcement actions (e. g., investigations, fines, penalties, audits, inspections, and similar); litigation (including class- action claims); additional reporting requirements and / or oversight; bans on processing personal data; and orders to destroy or not use personal data. Any of these events could have a material adverse effect on our reputation, business, or financial condition, including but not limited to: interruptions or stoppages in our business operations (including clinical trials); inability to process personal data or to operate in certain jurisdictions; limited ability to develop or commercialize our products; expenditure of time and resources to defend any claim or inquiry; adverse publicity; or substantial changes to our business model or operations.

**66Risks 61Risks** Related to our Securities The price of our stock may be volatile. The listing of our common stock on Nasdaq does not assure that a meaningful, consistent and liquid trading market currently exists or will exist in the future. The trading price of our common stock may fluctuate substantially. The price of our common stock that will prevail in the market may be higher or lower than the price at which our shares of common stock, depending on many factors, some of which are beyond our control and may not be related to our company or our operating performance. These fluctuations could cause you to lose part or all of your investment in our common stock. Those factors that could cause fluctuations include, but are not limited to, the following:

- price and volume of fluctuations in the overall stock market from time to time;
- fluctuations in stock market prices and trading volumes of similar companies;
- the thinly traded nature of our common stock;
- actual or anticipated changes in our net loss or fluctuations in our operating results or in the expectations of securities analysts;
- results of our preclinical studies and clinical trials or delays in anticipated timing;
- the issuance of new equity securities pursuant to a future offering, including issuances of preferred stock, or sales of large blocks of our stock and sales by insiders and our institutional investors;
- announcements of new collaboration agreements with strategic partners or developments by our existing collaboration partners;
- announcements of acquisitions, mergers or business combinations;
- competitive developments, including announcements by competitors of new products or services or significant contracts, acquisitions, strategic partnerships, joint ventures or capital commitments;
- general economic conditions and trends, including changes in interest rates, and other national and global conditions, including **the ongoing COVID-19 pandemic pandemics** and related global economic uncertainty;
- major catastrophic events;
- departures of key personnel;
- events affecting BCM, **Cell Ready** or any future collaborators;
- announcements of new product candidates or technologies, commercial relationships or other events, including the results of clinical trials, or variations in our quarterly operating results;
- regulatory developments in the United States and other countries, including changes in the structure of healthcare payment systems, or other positive and negative events relating to healthcare and the overall pharmaceutical and biotechnology sectors;
- failure of our common stock to maintain listing requirements on Nasdaq;
- the outcome of any litigation to which we are a party;
- changes in accounting principles; **and67 and62**
- discussion of our company or our stock price by the financial and scientific press and in online investor communities.

The stock market in general, and the Nasdaq Capital Market, or Nasdaq, and biotechnology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors, including potentially worsening economic conditions, may negatively affect the market price of our common stock, regardless of our actual operating performance. In the past, following periods of volatility in the market price of a company’s securities, securities class action litigation has often been brought against that company. Due to the potential volatility of our stock price, we may therefore be the target of securities litigation in the future. Securities litigation could result in substantial costs and divert management’s attention and resources from our business. We completed a reverse stock split of our shares of common stock, which may reduce and may limit the market trading liquidity of the shares due to the reduced number of shares outstanding and may potentially have an anti- takeover effect. We completed a reverse stock split, or the Reverse Stock Split, of our common stock by a ratio of one- for- ten (1: 10) effective January 26, 2023. The liquidity of our common stock may be adversely affected by the Reverse Stock Split as a result of the reduced number of shares outstanding following the Reverse Stock Split. In addition, the Reverse Stock Split may increase the number of stockholders who own odd lots of our common stock, creating the potential for such stockholders to experience an increase in the cost of selling their shares and greater

difficulty affecting such sales. Reducing the number of outstanding shares of our common stock through the Reverse Stock Split is intended, absent other factors, to increase the per share market price of our common stock. However, other factors, such as our financial results, market conditions and the market perception of our business may adversely affect the market price of our common stock. As a result, there can be no assurance that the Reverse Stock Split will result in the intended benefits, that the market price of our common stock will remain higher following the Reverse Stock Split or that the market price of our common stock will not decrease in the future. Sales of additional equity securities may adversely affect the market price of our common stock and your rights may be reduced. Our stockholders may experience dilution in the future and it may adversely affect the market price of our securities. We expect to continue to incur drug development and sale, general and administrative costs. Until such time, if ever, as we can generate substantial product revenue, we expect to fund our cash requirements through a combination of equity offerings, debt financings and potential collaboration, license and development agreements. We do not currently have a committed external source of funds, **but have entered into the ATM agreement under which we may sell shares**. To the extent that we sell equity securities or convertible debt securities, **including under the ATM agreement**, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. The sale or the proposed sale of substantial amounts of our common stock or other equity securities in the public markets may adversely affect the market price of our common stock. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may be required to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our drug development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves. As of December 31, **2022-2023**, we had **8.49** million shares of our common stock issued and outstanding (as adjusted for the Reverse Stock Split). Those outstanding shares represent a minority of our authorized shares, meaning that the ownership position of the current stockholders could be diluted significantly were we to issue a large number of additional shares. In addition, as of December 31, **2022-2023**, there were outstanding **warrants to purchase up to options for an aggregate of** approximately **10.87** million shares of our common stock at a weighted average exercise price of \$ **44.25**, **51** per share, and outstanding options for an aggregate of approximately **0.9** million shares of common stock at a weighted average exercise price of \$ **42.90** per share (each as adjusted for the Reverse Stock Split). We have registered the resale of the shares issuable upon exercise of our outstanding warrants, and as a result the shares issued upon exercise will be tradable by the exercising party. Upon such registration, the holders may sell these shares in the public markets from time to time, without limitations on the timing, amount, or method of sale. If our stock price rises, the holders may exercise their warrants and options and sell a large number of shares. This could cause the market price of our common stock to decline and cause existing stockholders to experience significant further dilution. **63** ~~We~~ **68** ~~Further, in December 2022 we entered into a purchase agreement with Lincoln Park Capital Fund, LLC, or Lincoln Park, which provides that, upon the terms and subject to the conditions and limitations set forth therein, we have the right, but not the obligation, to sell to Lincoln Park up to \$25,000,000 of shares of our common stock from time to time over the 24-month term of the purchase agreement. The purchase price for the shares that we may sell to Lincoln Park under the Purchase Agreement will fluctuate based on the price of our common stock. Depending on market liquidity at the time, sales of such shares may cause the trading price of our common stock to fall. We generally have the right to control the timing and amount of any future sales of our shares to Lincoln Park. Additional sales of our common stock, if any, to Lincoln Park will depend upon market conditions and other factors to be determined by us. We may ultimately decide to sell to Lincoln Park all, some or none of the additional shares of our common stock that may be available for us to sell pursuant to the Purchase Agreement. If and when we do sell shares to Lincoln Park, after Lincoln Park has acquired the shares, Lincoln Park may resell all, some or none of those shares at any time or from time to time in its discretion. Therefore, sales to Lincoln Park by us could result in substantial dilution to the interests of other holders of our common stock. Additionally, the sale of a substantial number of shares of our common stock to Lincoln Park, or the anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales.~~ We do not intend to pay cash dividends. We have not declared or paid any cash dividends on our common stock, and we do not anticipate declaring or paying cash dividends for the foreseeable future. Any future determination as to the payment of cash dividends on our common stock will be at our board of directors' discretion and depends on our financial condition, operating results, capital requirements and other factors that our board of directors considers to be relevant. General Risk Factors If our information technology systems or data, or those of third parties upon which we rely, are or were compromised, or are perceived to have been compromised, we could experience adverse consequences, including but not limited to regulatory investigations or actions; litigation; fines and penalties; disruptions of our business operations; reputational harm; loss of revenue or profits; loss of customers or sales; and other adverse consequences. In the ordinary course of our business, we and the third parties upon which we rely, may collect, receive, store, use, transmit, disclose, transfer, disclose, make accessible, protect, secure, dispose of, transmit, share, or otherwise process proprietary, confidential, and sensitive data, including personal data (such as health-related data regarding clinical trial subjects), intellectual property, and trade secrets. Cyberattacks, malicious internet-based activity, and online and offline fraud and other similar activities threaten the confidentiality, integrity, and availability of our sensitive information and information technology systems, and those of the third parties upon which we rely. Such threats are prevalent and continue to rise, are increasingly difficult to detect, and come from a variety of sources, including traditional computer "hackers," threat actors, "hacktivists," organized criminal threat actors, personnel (such as through theft or misuse), sophisticated nation-states, and nation-state-supported actors. Some actors



now engage and are expected to continue to engage in cyber- attacks, including without limitation nation- state actors for geopolitical reasons and in conjunction with military conflicts and defense activities. During times of war and other major conflicts, we, the third parties upon which we rely, may be vulnerable to a heightened risk of these attacks, including retaliatory cyber- attacks, that could materially disrupt our systems and operations, supply chain, and ability to produce, sell and distribute our goods and services. We and the third parties upon which we rely may be subject to a variety of threats, including, but not limited to, malicious code (such as viruses and worms), social engineering attacks (including through phishing attacks), malware (including as a result of advanced persistent threat intrusions), denial of service attacks (such as credential stuffing), credential harvesting, software bugs, server malfunctions, software or hardware failures, unauthorized access, natural disasters, fire, terrorism, successful breaches, personnel misconduct or error, or human or technological error, war and telecommunication and electrical failures. In particular, severe ransomware attacks are becoming increasingly prevalent and severe, and can lead to significant interruptions in our operations, loss of sensitive data, reputational harm, and diversion of funds. Extortion payments may alleviate some of the negative impact of a ransomware attack, but we may be unwilling or unable to make such payments due to, for example, applicable laws or regulations prohibiting such payments. Additionally, **future the COVID-19 pandemic pandemics could** ~~poses~~ **pose** increased risks to our information technology systems and data ~~if, as more of our employees are~~ **required to** work from home, utilizing network connections outside our premises. Future or past business transactions (such as acquisitions or integrations) could expose us to additional cybersecurity risks and vulnerabilities, as our systems ~~could~~ **could** be negatively affected by vulnerabilities present in acquired or integrated entities' systems and technologies. Furthermore, we may discover security issues that were not found during due diligence of such acquired or integrated entities, and it may be difficult to integrate companies into our information technology environment and security program. We rely on third parties (such as service providers and technologies) to process sensitive information in a variety of contexts, including without limitation third- party providers of cloud- based infrastructure, encryption and authentication technology, employee email, and other functions. Our ability to monitor these third parties' cybersecurity practices is limited, and these third parties may not have adequate information security measures in place. If our third- party service providers experience a security incident or other interruption, we could experience adverse consequences. While we may be entitled to damages if our third- party service providers fail to satisfy their privacy or security- related obligations to us, any award may be insufficient to cover our damages, or we may be unable to recover such award. In addition, supply- chain attacks have increased in frequency and severity, and we cannot guarantee that third parties' infrastructure in our supply chain or our third- party partners' supply chains have not been compromised. Any of the previously identified or similar threats could cause a security incident or other incident during which our information technology systems or data could be compromised, which could result in unauthorized, unlawful, or accidental acquisition, modification, destruction, loss, alteration, encryption, disclosure ~~of 64of~~, or access to our data; it could also disrupt our ability (and that of third parties upon which we rely) to operate our business, including conducting our clinical trials. For example, if a compromise were to occur and cause interruptions in our operations, it could result in a material disruption of our drug development programs. Similarly, the loss of clinical trial data from completed, ongoing or planned clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach results in a loss of or damage to our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the further development of our product candidates could be delayed. We may expend significant resources or modify our business activities (including our clinical trial activities) in an effort to protect against the compromise of our information technology systems and data. Further, certain data privacy and security obligations may require us to implement and maintain specific security measures, industry- standard or reasonable security measures to protect our information technology systems and data. While we have implemented security measures designed to prevent our information technology systems and data from being compromised, there can be no assurance that these measures will be effective. We may be unable to detect vulnerabilities in our information technology systems because the threats against these systems change frequently, are often sophisticated, and may not be detected until after a compromise has occurred. Despite our efforts to identify and remediate vulnerabilities, if any, in our information technology systems, our efforts may not be successful. Further, we may experience delays in developing and deploying remedial measures designed to address any identified vulnerabilities. If we (or a third ~~party~~ party upon whom we rely) experience a security incident or are perceived to have experienced a security incident, we may experience adverse consequences, including: government enforcement actions (for example, investigations, fines, penalties, audits, and inspections); additional reporting requirements and / or oversight; restrictions on processing data (including personal data); litigation (including class actions); indemnification obligations; negative publicity; reputational harm; monetary fund diversions; interruptions in our operations (including availability of data); financial loss; and other similar harms. Additionally, applicable data privacy and security obligations may require us to notify relevant stakeholders; such disclosures are costly, and the disclosures or the failure to comply with such requirements could lead to adverse consequences. Our contracts may not contain limitations of liability, and even where they do, there can be no assurance that limitations of liability in our contracts are sufficient to protect us from claims related to our data privacy and security obligations. We have cybersecurity insurance for a breach event covering expenses for notification, credit monitoring, investigation, crisis management, public relations and legal advice. We also maintain property and casualty insurance that may cover restoration of data, certain physical damage or third- party injuries caused by potential cybersecurity incidents. However, damage and claims arising from such incidents may not be covered or may exceed the amount of any insurance available. Additionally, we cannot be sure that such coverage will continue to be available on commercially reasonable terms or at all, or that such coverage will pay future claims. As a result of being a public company, we are obligated to develop and maintain proper and effective internal controls over financial reporting, and any failure to maintain the adequacy of these internal controls may adversely affect investor confidence in our company and, as a result, the value of our common stock. We are required, pursuant to Section 404 of the Sarbanes- Oxley Act, or Section 404, to furnish a report by management on, among other things,

the effectiveness of our internal control over financial reporting. We are also required to disclose significant changes made in our internal control procedures on a quarterly basis. ~~70~~**To** comply with Section 404, we have engaged in the costly and challenging process of compiling the system and processing documentation necessary to perform the evaluation needed to comply with Section 404. Our compliance with Section 404 requires that we incur substantial professional fees and expend significant management efforts, and we may need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge and compile the system and process documentation necessary to perform the evaluation needed to comply with Section 404. During the evaluation and testing process of our internal controls, if we identify one or more material weaknesses in our internal control over financial reporting, we will be unable to assert that our internal control over financial reporting is effective. We cannot assure you that there will not be material weaknesses or significant deficiencies in our internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition or results of operations. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness or significant deficiency in our internal control over financial reporting, we could lose investor confidence in the accuracy and completeness of our financial reports, the market price of our common stock ~~65~~**stock** could decline, and we could be subject to sanctions or investigations by the Nasdaq, the SEC or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets. Our ability to use net operating losses and certain other tax attributes to offset future taxable income may be subject to limitation. Our net operating loss, or NOL, carryforwards could expire unused and be unavailable to offset future income tax liabilities because of their limited duration or because of restrictions under U. S. tax law. Our federal NOLs generated in tax years beginning before January 1, 2018, are permitted to be carried forward for only 20 years under applicable U. S. tax law. Our federal NOLs generated in tax years beginning after December 31, 2017, may be carried forward indefinitely, but the deductibility of such federal NOLs is limited to 80 % of taxable income. It is uncertain if and to what extent various states will conform to federal tax law. In addition, under Section 382 and Section 383 of the Internal Revenue Code of 1986, as amended, or, the Code, if a corporation undergoes an “ ownership change,” its ability to use its pre- change NOL carryforwards and other pre- change tax attributes (such as research tax credits) to offset its post- change income may be limited. A Section 382 “ ownership change ” generally occurs if one or more stockholders or groups of stockholders who own at least 5 % of our stock increase their ownership by more than 50 percentage points (by value) over their lowest ownership percentage over a rolling three- year period. We may have experienced ownership changes in the past and may experience ownership changes in the future as a result of shifts in our stock ownership (some of which are outside our control). As a result, if we earn net taxable income, our ability to use our pre- change NOLs to offset such taxable income may be subject to limitations. Similar provisions of state tax law may also apply to limit our use of accumulated state tax attributes. In addition, at the state level, there may be periods during which the use of NOLs is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed. Consequently, even if we achieve profitability, we may not be able to utilize a material portion of our net operating loss carryforwards and certain other tax attributes, which could have a material adverse effect on cash flow and results of operations. Catastrophic events may disrupt our business. ~~Our corporate headquarters and cGMP manufacturing facility are located in Houston, Texas.~~In the event of a major hurricane or other serious weather event or catastrophic event such as fire, power loss, cyberattack, war, terrorist attack or epidemic or pandemic, such as the COVID-19 pandemic, that impacts ~~our corporate headquarters or other facilities, or~~ the facilities of any third parties on which we may rely, we may be unable to continue our operations and may experience delays in our manufacturing process and shipment of clinical supply to trial sites or interruptions in our clinical trials and research activities, all of which could delay our development plans and materially harm our business, results of operations and prospects. ~~Our~~ **Unfavorable global political or economic conditions could adversely affect our business and financial condition or results of operations. Our results of operations could be adversely affected by general conditions in the effects of health epidemics, including pandemics. Our business and operations could be adversely affected by the effects of health epidemics, as was recently experienced in connection with the COVID- 19 virus, which was declared by the World Health Organization as a global economy and pandemic. Remote work policies, quarantines, shelter- in - place and similar government orders, shutdowns or the other global financial markets restrictions on the conduct of business operations related to the pandemics or other health epidemics may negatively impact productivity. For example instance, in recent years the COVID- 19 pandemic disrupted our ongoing research and development activities and delayed certain of our clinical programs and timelines. In addition, decades although our employees are accustomed to working remotely, changes in internal controls due to remote work arrangements may result in control deficiencies in the preparation of our financial reports, which could be material. Such orders may also impact personnel at third - party manufacturing facilities high inflation and concerns about an economic recession in the United States or and other major markets countries, or the availability or cost of materials, which would disrupt our supply chain and could affect our ability to conduct ongoing and planned clinical trials and preparatory activities. Health epidemics may also affect the conduct of our clinical trials. Although we are enrolling patients and initiating clinical sites in our Phase 2 trial of MT- 401 (zednoleucel) for post- transplant AML, we previously experienced temporary delays in enrollment due to the COVID- 19 pandemic and in satisfying certain FDA requirements to move forward with the trial, which together resulted in a delay widespread unemployment, economic slowdown and extreme volatility in our overall timelines for this trial. Our ongoing and future clinical trials may be also affected by future pandemics. Patient enrollment and clinical site initiation, while ongoing, may be delayed due to prioritization of hospital resources toward pandemics or other health emergencies, if the they arise capital markets. Some patients may not be able The Federal Reserve recently raised interest rates multiple times in response to concerns about inflation and is expected to continue to 71** **comply with clinical trial**

**protocols if quarantines impede patient movement 66**