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

FORM 10-K

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

For the fiscal year ended December 31, 2019

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number 1-38519

AgeX Therapeutics, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**82-1436829**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

965 Atlantic Avenue, Suite 101
Alameda, California 94501
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code **(510) 871-4190**

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

Title of each class	Trading Symbol	Name of exchange on which registered
Common Stock, par value $0.0001 per share	AGE	NYSE American

Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

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

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

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

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

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

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

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

The approximate aggregate market value of shares of voting common stock held by non-affiliates computed by reference to the price at which shares of common stock were last sold as of June 30, 2019 was $56.4 million. Shares held by each executive officer and director and by each person who beneficially owns more than 5% of the outstanding common stock have been excluded in that such persons may under certain circumstances be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of March 16, 2020, there were outstanding 37,656,415 shares of common stock, par value $0.0001 per share.

DOCUMENTS INCORPORATED BY REFERENCE

Table of Contents

		Page Number
Part I		
Item 1.	Business	4
Item 1A.	Risk Factors	27
Item 1B.	Unresolved Staff Comments	58
Item 2.	Properties	58
Item 3.	Legal Proceedings	58
Item 4.	Mine Safety Disclosures	58
Part II		
Item 5.	Market for Registrant's Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities	59
Item 6.	Selected Financial Data	59
Item 7.	Management's Discussion and Analysis of Financial Condition and Results of Operations	59
Item 7A.	Quantitative and Qualitative Disclosures about Market Risk	70
Item 8.	Financial Statements and Supplementary Data	72
Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	99
Item 9A.	Controls and Procedures	99
Item 9B.	Other Information	99
Part III		
Item 10.	Directors, Executive Officers, and Corporate Governance	100
Item 11.	Executive Compensation	103
Item 12.	Security Ownership of Certain Beneficial Owners and Management, and Related Stockholder Matters	111
Item 13.	Certain Relationships and Related Transactions, and Director Independence	113
Item 14.	Principal Accounting Fees and Services	118
Part IV		
Item 15.	Exhibits, Financial Statement Schedules	119
Item 16.	Summary	121
Signatures		122

PART I

Certain statements contained herein are forward-looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995, including, but not limited to, statements pertaining to future financial and/or operating results, future growth in research, technology, clinical development, and potential opportunities for AgeX, along with other statements about the future expectations, beliefs, goals, plans, or prospects expressed by management constitute forward-looking statements. Any statements that are not historical fact (including, but not limited to statements that contain words such as "will," "believes," "plans," "anticipates," "expects," "estimates") should also be considered to be forward-looking statements. Forward-looking statements involve risks and uncertainties, including, without limitation, risks inherent in the development and/or commercialization of potential products, uncertainty in the results of clinical trials or regulatory approvals, need and ability to obtain future capital, and maintenance of intellectual property rights. Actual results may differ materially from the results anticipated in these forward-looking statements and as such should be evaluated together with the many uncertainties that affect the businesses of AgeX, particularly those mentioned in the cautionary statements found in AgeX's filings with the Securities and Exchange Commission. AgeX disclaims any intent or obligation to update these forward-looking statements.

References to " AgeX," "our" or "us" mean AgeX Therapeutics, Inc.

The description or discussion, in this Form 10-K, of any contract or agreement is a summary only and is qualified in all respects by reference to the full text of the applicable contract or agreement.

INDUSTRY AND MARKET DATA

This Annual Report ("Report") on Form 10-K contains market data and industry forecasts that were obtained from industry publications, third-party market research and publicly available information. These publications generally state that the information contained therein has been obtained from sources believed to be reliable. While we believe that the information from these publications is reliable, we have not independently verified such information.

This Report also contains estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. We obtained the industry and market data in this Report from our own research as well as from industry and general publications, surveys and studies conducted by third parties, some of which may not be publicly available. Such data involves a number of assumptions and limitations and contains projections and estimates of the future performance of the industries in which we operate that are subject to a high degree of uncertainty. We caution you not to give undue weight to such projections, assumptions and estimates.

Item 1. Business

Overview of Business

We are a biotechnology company focused on the development and commercialization of novel therapeutics targeting human aging and degenerative diseases. Our mission is to apply our comprehensive experience in fundamental biological processes of human aging to a broad range of age-associated medical conditions. We believe that demand for therapeutics addressing such conditions is on the rise, commensurate with the demographic shift of aging in the United States and many other industrialized countries.

Our proprietary technology, based on telomerase-mediated cellular immortality and regenerative biology, allows us to utilize telomerase-expressing regenerative pluripotent stem cell ("PSCs") for the manufacture of cell-based therapies to regenerate tissues afflicted with age-related chronic degenerative disease. We own or have licenses to a number of patents and patent applications used in the generation of these product candidates, including intellectual property related to PSC-derived clonal embryonic progenitor cell lines (PureStem® technology) and HyStem® delivery matrices. Our technology platform also includes UniverCyte™ which uses the HLA-G gene to suppress rejection of transplanted cells and tissues to confer low immune observability to cells. AgeX plans to use or license the use of this patented technology to produce genetically-modified master cell banks of pluripotent stem cells that can then be differentiated into any young cell type of the human body that now express the immune tolerogenic molecule.

Our product candidates in the discovery stage include two cell-based therapies derived from telomerase-positive PSCs and one product candidate derived from our proprietary induced Tissue Regeneration (iTR™) technology. We are also sponsoring a research program to derive neural stem cells from PSCs to treat degenerative diseases such as Huntington's Disease. We will need to conduct research and development work as part of our plan to develop these cell- and drug-based therapies, each targeting large unmet needs in age-related medicine.

Additional Information

AgeX is incorporated in the State of Delaware. Our common shares trade on the NYSE American under the symbol "AGE." Our principal executive offices are located at 965 Atlantic Avenue, Suite 101, Alameda, CA 94501, and our phone number at that address is (510) 871-4190. Our website address is www.agexinc.com. The information on, or that can be accessed through our website is not part of this Report. We make available, free of charge through our website, our most recent annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to those reports, as soon as reasonably practicable after the reports are electronically filed with or furnished to the Securities and Exchange Commission (the "SEC").

iTR™, and UniverCyte™, are trademarks of AgeX Therapeutics, Inc. HyStem® and PureStem® are registered trademarks of Lineage Cell Therapeutics, Inc. GeneCards® is a registered trademark of Yeda Research and Development Co. Ltd.

Emerging Growth Company

We are an "emerging growth company" under the Jumpstart our Business Startups Act of 2012 or the JOBS Act. As an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable, in general, to public companies that are not emerging growth companies. These provisions include:

- reduced disclosure about our executive compensation arrangements;
- no non-binding stockholder advisory votes on executive compensation or golden parachute arrangements; and
- exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting.

We will remain an "emerging growth company" until the earliest of: (i) the last day of the fiscal year in which we have total annual gross revenues of $1.07 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the first sale of our common equity securities pursuant to an effective registration statement under the Securities Act of 1933, as amended; (iii) the date on which we have issued more than $1.0 billion in nonconvertible debt securities during the previous three years; or (iv) the date on which we are deemed to be a "large accelerated filer" under the Securities Exchange Act of 1934, as amended.

The JOBS Act permits an emerging growth company to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. However, we have elected to comply with newly adopted or revised accounting standards when they become applicable to public companies because our financial statements were previously consolidated with those of our former parent company Lineage Cell Therapeutics, Inc. which is not an emerging growth company under the JOBS Act and is therefore not permitted to delay the adoption of new or revised accounting standards that become applicable to public companies. This election under the JOBS Act to not delay the adoption of new or revised accounting standards is irrevocable.

Overview of Our Opportunity in Age-Related Diseases

To date, conventional pharmaceutical approaches to the chronic degenerative conditions associated with aging have provided little benefit. Often the approaches offer merely relief from the symptoms of ageing and age-related disease, rather than targeting underlying disease processes. We believe this is about to change through harnessing the power of new cellular and molecular technologies. We aim to lead this coming revolution with our pioneering technologies to restore tissue and organ function. Our cell therapy approach is focused on generating and delivering new cells to patients. Our iTR approach is focused on reversing the age of cells already in the body, where our research team has recently converted the cells of a 114-year-old to young pluripotent stem cells [J. Lee et al., Induced pluripotency and spontaneous reversal of cellular aging in supercentenarian donor cells, Biochemical and Biophysical Research Communication, https://doi.org/10.1016/j.bbrc.2020.02.092].

Aging is one of the most significant demographic trends of our time. As shown in Figure 1, the U.S. Census Bureau projects a sharp rise in the number of Americans over 80 years of age, with an acceleration occurring between the years 2020 and 2030.

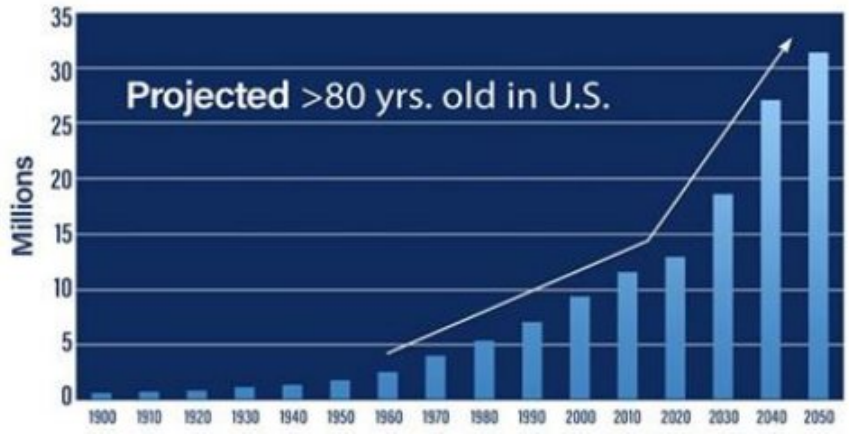

Figure 1. Projected increase in the numbers of the U.S. population over 80 years of age (U.S. Census Bureau)

This demographic shift associated with 76 million aging baby boomers poses a significant challenge to our healthcare system and our economy as a whole. The unsolved problem relates to the fact that chronic conditions account for about 80% of total health care expenditures in the United States, with the elderly having a higher prevalence of chronic degenerative disease than the young. Approximately 80% of older adults have one chronic disease, and 68% have two or more.

Our technology platforms reflect over 25 years of research and development in cell immortality and regenerative medicine. It is designed to address some of the largest unmet needs of an aging population by translating state-of-the-art laboratory science relating to aging into meaningful therapeutic biologicals, drugs, and devices.

Overview of Our Product Candidates

Our product pipeline includes two cell-based and one drug-based therapeutic product candidates in development. It also includes currently-marketed online database products and research products.

Our lead cell-based therapeutic candidates in development are AGEX-BAT1 and AGEX-VASC1:

- AGEX-BAT1 is our lead cell therapy product candidate in the discovery stage of development utilizing PSC-derived brown adipocytes for the treatment of certain age-related metabolic disorders such as Type II (adult-onset) diabetes.

- AGEX-VASC1 is a cell-based therapy in the discovery stage of development comprised of young regenerative vascular-forming cells. AGEX-VASC1 may restore vascular support in aged ischemic tissues such as the ischemic heart.

Our lead drug-based therapeutic candidate in discovery is AGEX-iTR1547*:*

- AGEX-iTR1547 is a drug-based formulation in the discovery stage of development intended to potentially restore regenerative potential in a wide array of aged tissues afflicted with degenerative disease using our proprietary iTR technology.

Our currently marketed research and database products include cGMP ES Cells (human embryonic stem or "hES") cells produced under current good manufacturing practices (or "cGMP"), PSC-derived cells for research, and our GeneCards Database Suite:

- cGMP PSC lines and PSC-derived cells for research: Through our ESI BIO division, we market cGMP PSC lines as well as PSC-derived cells.

- GeneCards Database Suite: Through our subsidiary LifeMap Sciences, Inc. ("LifeMap Sciences"), we currently market genomic interpretation algorithms and analysis tools for use by researchers at pharmaceutical and biotechnology companies and other institutions through paid subscriptions or on a fee-per-use basis.

Overview of Our Technology Platforms

Our four core technology platforms provide us with a strong foundation for successfully addressing many of the diseases of ageing by focusing on broad therapeutic applicability and commercially scalable technologies:

1. PureStem: AgeX's allogeneic cell therapy platform, based on human embryonic progenitors, which are cells in state of development between stem cells and adult cells, which we believe has the potential to solve several major challenges faced by the cell therapy industry by generating cellular therapeutics which would:

- be commercialized as "off-the-shelf" products
- be pure and industrially scalable
- have lower cost of goods per unit
- be amenable to traditional pharma supply chain logistics
- have the potential for acceptable reimbursement prices, unlike the very expensive autologous products, and
- have higher clinical adoption form expected cost savings and more simplified processes.

In addition, we believe PureStem cells, because they come from pluripotent cells, rather than other cells that have to be manipulated to a pluripotent state, will have higher efficacy and safety than competitors' cells, such as mesenchymal stem cells (MSCs), which only survive transiently in the body and exert any short-term benefit by releasing paracrine factors. This mechanism of action significantly limits their potential.

MSCs neither engraft nor become specialized cells. On the other hand, cells derived from PureStem progenitors will be young, not prone to the disadvantages associated with older cells, and are expected to become permanently engrafted in the body to deliver a true regenerative outcome. To date, AgeX has isolated more than 200 cell types from PureStem.

2. UniverCyte™: AgeX's pioneering technology to genetically modify allogeneic donor cells to become hypoimmunogenic/universal, so they can potentially be transplanted into all patients in an off-the- shelf manner, without the normal need for human leukocyte antigen (HLA)[1] matching between donor and receipt or immunosuppression. UniverCyte utilizes a potent molecule called HLA-G. Its only known role in nature is to prevent destruction of a semi-allogeneic fetus by the maternal immune system. Proof-of-concept for UniverCyte™ has been established in both lab and mouse models. UniverCyte could potentially avoid immune system rejection of transplanted cells, solving a major challenge facing the allogeneic cell therapy industry. In addition to utilizing UniverCyte™ for its own future cell therapy products, AgeX may make UniverCyte™ available to other cell therapy companies through licensing arrangements.

3. HyStem®: Delivery technology to stably engraft cells or slowly release small molecules in the body for greater safety and efficacy. The key advantages of HyStem® over competitors are: (1) higher cell retention, survival, proliferation and engraftment; (2) biodegradability which can be fine-tuned; (3) non-immunogenicity; (4) immunosuppressive in nature; (5) ease of usage; and (6) scalability.

[1] The histocompatibility complex gene group provides instructions for making a group of related proteins known as the human leukocyte antigen (HLA) complex. The HLA complex helps the immune system distinguish the body's own proteins from proteins made by foreign invaders such as viruses and bacteria.

4. Induced Tissue Regeneration (iTR™): Utilizes small molecules to turn on regeneration of cells. Currently, humans can regenerate blood cells, intestinal cells and skin cells, but this novel approach may trigger complete regeneration of cells, and potentially organs and limbs. The premise behind iTR is that aging and in turn diseases of old age are because of two characteristics of cells, replicative immortality and regenerative capacity, which are present in embryonic cells but which are lost at the embryonic to fetal transition (EFT). With this loss, humans can no longer generate new cells or repair damaged cells to maintain a peak physical condition. Prior to the EFT, injury heals by regeneration, not scarring. We discovered that cells begin expressing COX7A1 at the EFT, which may be a key inhibitor of cellular regeneration. We are working to elucidate the exact role of COX7A1 as well as other genes involved in restricting cellular regeneration. The aim is to return an aged cell back to a youthful state, without crossing over to pluripotency due to the risk of tumorgenicity. This would lead to cellular rejuvenation without dedifferentiation.

The technology underlying our product development programs is based on telomerase-mediated cellular immortality and regenerative biology. By "telomerase-mediated cellular immortality" we refer to the fact that cells that express sufficient levels of a protein called telomerase are capable of replicating without limit. By "regenerative biology," we refer to novel methods to regenerate tissues afflicted with age-related chronic degenerative disease such as coronary disease, heart failure, and age-related metabolic disorders such as those associated with Type II diabetes, osteoarthritis, or Parkinson's disease, as well as others. We utilize telomerase-expressing regenerative Pluripotent Stem Cells, or PSCs, for the manufacture of cell-based therapies. We own or have licensed numerous patents and patent applications covering methods and compositions relating to this technology platform.

Business Strategy

Each of our four proprietary platform technologies, PureStem® for cell derivation and manufacturing, UniverCyte™ for generation of hypoimmunogenic cells, iTR™ for reversing the age of cells already in the body and HyStem® for cell delivery, presents AgeX with a multiplicity of attractive opportunities which we may pursue. Given these platform technologies may be highly desirable to multiple academic and biopharma companies due to their broad applicability and potentially important clinical and commercial benefits, AgeX plans to pursue three different business models for these platforms:

- **Business Development and Licensing (BD&L)**: Focused on licensing AgeX technologies to other cell therapy or biopharma companies to bring in early revenue streams, especially for therapies that AgeX does not presently intend to develop.

- **Cellular Therapy:** Focused on progressing cell therapies to human clinical trials. AgeX may conduct research and development of cell therapy product candidates through a variety of strategies, including but not limited to conducting research and development primarily in-house, entering into co-development and marketing arrangements with researchers or other companies in the cell therapy or biopharma industry, and engaging contract service providers to conduct research and development and manufacturing for AgeX for particular product candidates.

- **Reverse Bioengineering, Inc.:** Partial cellular reprogramming using our iTR™ technology may one day allow us to revert aged or diseased cells inside the body back to a more youthful, healthy and function state. We incorporated Reverse Bioengineering, Inc. ("Reverse Bio") as an AgeX subsidiary to develop our revolutionary iTR™ platform. Reverse Bio will allow for a dedicated focus on iTR™ in terms of equity financing and advancing our iTR™ technology to proof-of-concept in an animal model as quickly as possible.

Each of these models may provide particular benefits to AgeX in terms of financing and efficiency of operations. However, each alternative has potential disadvantages as well. If AgeX out-licenses its technology it will avoid the costs and risks of research and development, clinical trials, regulatory approval, manufacturing, and commercialization of product candidates, but the revenues AgeX would receive from commercialization of products developed under those arrangements would likely be limited to royalties on product sales and potentially licensing fees and milestone payments representing a relatively small portion of total product revenues. Similarly, co-development and marketing or similar arrangements would permit AgeX to share costs and risks but would also require AgeX to share revenues from the product candidates that may be successfully developed and commercialized. See "Risk Factors" elsewhere in this Report for information about certain risks associated with reliance on arrangements with third parties for research, product development, clinical trials, manufacturing, and commercializing product candidates.

We may finance our iTR research and development through Reverse Bio. To the extent that such financing is obtained through the sale of capital stock or other equity securities to investors or other biopharma companies by Reverse Bio, or the sale of Reverse Bio shares held by AgeX, our equity interest in Reverse Bio and its iTR business would be diluted.

Background of Human Aging

Cell Immortality

There is a growing consensus in the scientific community that human aging is due in large part to the aging of individual cells in the various tissues of the body (somatic cells). In contrast, the reproductive lineage of cells (germ-line) perpetuate the human species from generation-to-generation without limit and continue to generate new people over the millennia.

In 1961, Dr. Leonard Hayflick first reported that normal human cells in the body (unlike the germ-line) can proliferate for only a finite number of times (typically fewer than 100 times). This phenomenon, known as the "Hayflick Limit", "cell mortality", or "cellular aging", is a normal property of somatic cells. In the 1990s, our CEO, Dr. Michael D. West, founded a biotechnology company called Geron Corporation, where his team isolated for the first time the human gene called "Telomerase Reverse Transcriptase" or "telomerase." In 1998, Geron scientists in collaboration with scientists at the University of Texas Southwestern Medical Center at Dallas, published the result that telomerase could stop the aging of human cells, or could "immortalize" them.

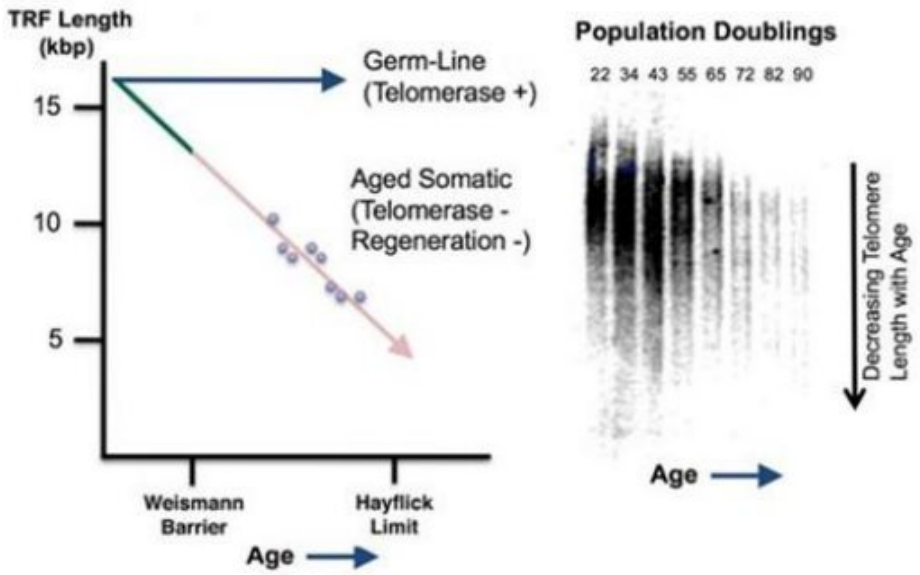

Figure 2. The Germ-line/soma dichotomy wherein germ-line cells express telomerase, maintain telomere length, and exhibit replicative immortality, while body (somatic) cells lack telomerase, showing progressive telomere shortening until they reach the Hayflick limit.

In 1994, Dr. West's group demonstrated through an assay for measuring telomerase activity that nearly 90% of cancer cell types cultured in the laboratory or tumors surgically removed from patients abnormally express telomerase. This broke the then dogma that there was no common mechanism at work in cancer. Scientists have concluded that cell mortality, while being detrimental in old age, benefits us early in life by helping to repress cancer cell growth. Figure 2 illustrates this dichotomy wherein immortal cells such as the germ-line cells that perpetuate the species are immortal through telomerase activity while body (somatic) cells lack telomerase expression, and as a result show progressive telomere shortening and a finite lifespan (are mortal).

The Weismann Barrier

Early in the evolution of life, primitive unicellular and even multicellular organisms may have lacked programmed aging as a result of the potential of their cells having the potential for both replicative immortality and regeneration. However, in more complex animals such as mammals, somatic cells lose not only replicative immortality, but after most organ systems are formed during embryonic development, they also lose full regenerative potential. This repression of both telomerase-mediated cell immortality and regeneration potential is called the "Weismann Barrier" (see Figure 3).

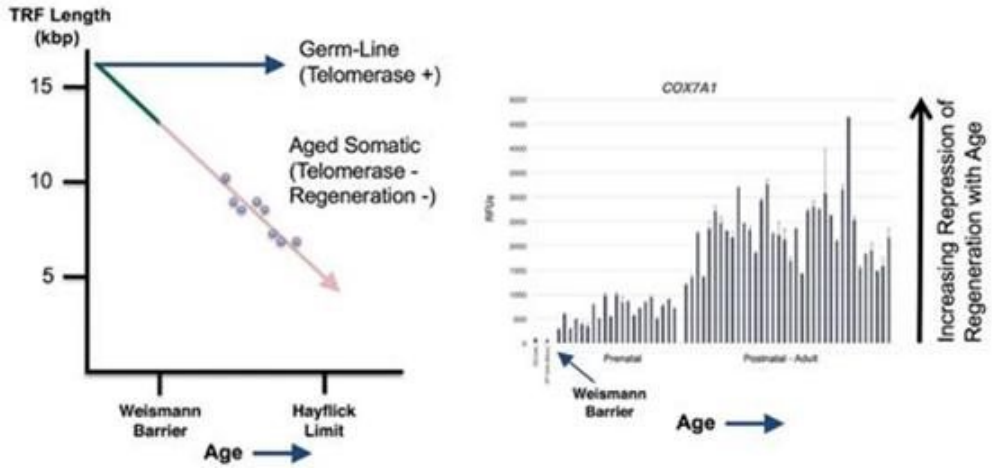

Figure 3. The Weismann Barrier coincides with the loss of both replicative immortality and regeneration. Levels of expression of the gene *COX7A1* provide a useful marker of the loss of regenerative potential.

PSCs represent the earliest stages of human development and are the first normal human cells cultured in the laboratory that display both telomerase-mediated replicative immortality and regenerative potential. Therefore, our scientists utilized these cells as well as the primitive regenerative cells derived from them, called "PureStem®" cell lines, in research where they were compared to diverse adult cells on the mortal side of the Weismann barrier to uncover the mechanisms regulating the loss of regenerative potential. Artificial intelligence algorithms were used to parse millions of gene expression data points and the results were published in late 2017. Figure 3 shows the Weismann Barrier and the associated rise of a gene expression marker of the non-regenerative state designated *COX7A1*. This proprietary marker, along with other insights obtained from the research, provides us with a window into this biology and a means of screening for agents capable of restoring a regenerative state to old nonregenerative cells. It is anticipated that such agents may not only reset the pattern of gene expression in adult cells back to that their regenerative counterparts but may also induce tissue regeneration when applied *in vivo* in the context of age-related degenerative disease. Since the previously mentioned 2017 publication described the re-emergence of the regenerative phenotype in the majority of cancer cell lines, the discoveries may open the door to potentially important diagnostic and therapeutic implications as well.

Pluripotent Stem Cells (PSCs)

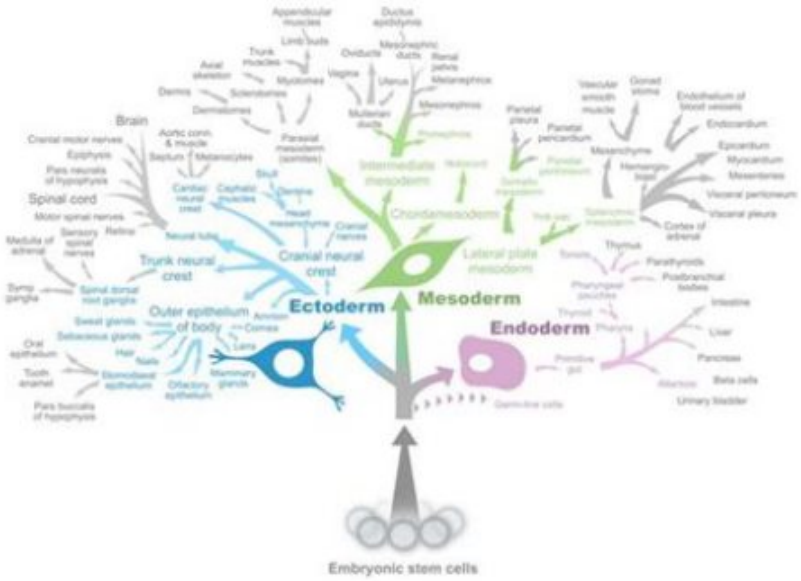

Figure 4. Pluripotent Stem Cells (PSCs) possess both telomerase-mediated replicative immortality and regenerative potential, capable of producing all human cell types.

In an effort to utilize telomerase-mediated immortality and regenerative biology in the development of novel therapeutics, in the mid-1990s, Dr. West, organized a collaboration with Drs. James Thomson, John Gearhart, and Roger Pedersen that led to the first isolation of PSCs. In contrast to other types of cells, PSCs are unique by at least two important criteria. The first criterion relates to the ability of pluripotent cells to proliferate, or make more copies of themselves, indefinitely, that is to say, they are "immortal". The second relates to the ability of PSCs to differentiate into any of the hundreds of specialized cell types in the body. This replicative immortality of PSCs facilitates the industrial scalability of product. We believe that many of these cell types have potential for regenerating function in tissues damaged by degenerative diseases when transplanted. A small sampling of these cell types is shown in Figure 4. Unlike PSCs, adult stem cells typically have severely-reduced scale-up potential (are mortal unlike immortal PSCs), and have passed the Weismann Barrier, and are therefore limited in their ability to regenerate normal tissue when transplanted *in vivo*. Therefore, we believe that PSC-based cellular therapeutics have significant competitive advantages over cell-based therapeutics being developed by many adult stem cell companies.

Our Technology Platforms

PureStem® Technology

Regulatory approval of cell- and tissue-based products require high standards of quality control. In the case of stem cell-derived products, there is a high standard for insuring the known identity, purity, and reproducibility of the cells to be administered. PSCs provide certain advantages over adult stem cell products when used in the manufacture of cell-based therapeutics for the treatment of age-related disease. These advantages include:

- The replicative immortality of the PSCs which facilitates the indefinite scale-up of PSC master cell banks for the manufacture of uniform product, as well as an immortal substrate for targeted genetic modifications.

- Since most PSCs maintain long and stable telomere lengths, the replicative capacity of derived differentiated cell types is typically longer (younger) than adult or even fetal-derived cells.

- Using PureStem® technology, it is possible to clonally expand hundreds of purified, identified, and reproducibly scalable cell types that retain regenerative potential (have not passed the regeneration limit).

PureStem® technology is based on the observation that embryonic anlagen of many tissues in the human body are naturally comprised of highly proliferative cells with relatively long telomere length. Therefore, it is possible to generate clonal lineages of these cells *in vitro.* Cells derived from adult tissues commonly permanently cease to divide after a certain number of doublings, a condition known as senescence. In addition, adult and even fetal tissues largely contain differentiated cells often with limited or no capacity of replication *in vitro*. As a result, the clonal expansion of human embryonic progenitor cell types allows not only a novel and more facile point of scalability but also generates populations of cells that are multipotent instead of pluripotent, and therefore markedly easier to define identity, purity, and potency.

We have studied the fate of over 200 diverse PureStem cell lines in thousands of differentiation conditions. This was accomplished by thawing individual cryopreserved PureStem cell lines, culturing them in the laboratory, and then exposing the cells to factors that differentiate cells such as protein growth and differentiation factors, hormones, and small molecules implicated in causing cells to change from one type of cell into another (differentiation). Using individual cells from the over 200 diverse PureStem cell lines previously isolated and cryopreserved, we treated the diverse cells with thousands of differentiation conditions, prepared RNA, and determined the gene expression pattern of the cells using gene expression microarrays. These experiments have shown that the PureStem cell lines display site-specific markers that identify not only the type of cells, but also where in the body the cells would normally reside. Therefore, in the example of cartilage cells, it was possible to produce diverse types of cartilage in this manner. We have licensed from our former parent company Lineage Cell Therapeutics, Inc. (“Lineage”) PureStem applications outside of orthopedics, medical aesthetics, and certain ophthalmological applications.

We have chosen two PureStem applications for our initial product development based on unmet medical need along with other factors. The first product candidates are Brown Adipose Tissue (BAT) cells for the treatment of metabolic disorders such as obesity or Type II diabetes, and vascular endothelial progenitors for the treatment of age-related ischemic disease such as that leading to myocardial ischemia and infarction. These cells will be formulated in a delivery matrix designated HyStem® to promote viability of the graft as well as to localize the cells to the intended site in the body. See “—Overview” and “—Our Target Market.”

HyStem® Delivery Technology

HyStem® is a patented biomaterial that mimics the extracellular matrix that is the structural network of macromolecules surrounding cells in the body. The extracellular matrix is essential for normal cellular function and survival of transplanted cells. Many tissue engineering and regenerative cell-based therapies are expected to benefit from the delivery of therapeutic cells in a matrix for precise localized delivery and survival. HyStem is a unique hydrogel that has been shown to support cellular attachment *in vivo*. Current research at medical institutions has shown that HyStem is compatible with a wide variety of cells and tissue types including those of the brain, bone, skin, cartilage, vascular system and heart. The technology underlying HyStem hydrogels was developed at the University of Utah and was been exclusively licensed to Lineage for human therapeutic applications and sublicensed to AgeX for certain fields. The HyStem technology is based on a unique thiol cross-linking chemistry to prepare hyaluronan-based matrices as hydrogels. Since the first published report in 2002, there have been numerous academic scientific publications supporting the biocompatibility of thiol cross-linked hyaluronan-based matrices and their applications as medical devices and in cell culture, tissue engineering, and animal models of cell-based therapies.

Figure 5. AgeX plans to utilize the HyStem technology for the delivery of cell-based therapeutics.

Due to the unique cross-linking chemistry, HyStem matrices have the ability to be safely combined with living cells and subsequently injected or applied locally as a hydrogel which allows the gel to conform to the three-dimensional contour of a tissue. Building upon this platform, we initially plan to use HyStem for cell-based therapy.

The building blocks for HyStem hydrogels may vary with the application but typically include combinations of hyaluronan, gelatin, or heparin, each of which has been thiol-modified. Hydrogels are formed by cross-linking mixtures of these thiolated macromolecules with polyethylene glycol diacrylate (PEGDA). The rate of gelation and the hydrogel stiffness can be controlled by varying the amount of cross-linker. An important attribute of HyStem hydrogels is their large water content, over 98%. As a result, these hydrogels have a high permeability for oxygen, nutrients, and other water-soluble metabolites.

UniverCyte™

Our UniverCyte™ technology uses a proprietary, novel, modified form of HLA-G and is intended to permit donor cells to be transplanted into patients without donor-patient tissue matching and without administering immunosuppressant medication. Immunosuppressive drugs can reduce patient resistance to infectious diseases and cancers as well as cause organ and other toxicities. Reducing or eliminating the need for immunosuppressants after cell transplantation by use of hypoimmunogenic cells may make therapies universally available. We plan to use or license the use of this patented technology to produce genetically-modified master cell banks of pluripotent stem cells that can then be differentiated into any young cell type of the human body that now express the immune tolerogenic molecule.

We have entered into a research collaboration with a Japanese biopharma company to evaluate the expression of HLA-G on induced pluripotent stem cells (iPS cells) and the ability of those UniverCyte-modified iPS cells to evade immune responses and to differentiate into somatic cells. We will have rights to use any improvements to our UniverCyte™ technology developed through the research and may negotiate commercial licensing arrangements granting our collaborator rights to use UniverCyte™ to produce cellular products for therapeutic and commercial purposes.

Products and Product Candidates

Our Therapeutic Product Candidates

AGEX-BAT1 - Brown Adipose Tissue (BAT) Progenitors

Brown Adipose Tissue (BAT) is abundant early in life but lost precipitously with age. This tissue is believed to generate heat through expression of a gene called *UCP1*. In addition, the high levels of glucose and lipid uptake by the tissue is believed to balance metabolism in young people. In contrast, central obesity and Type II diabetes has been correlated with low levels of BAT.

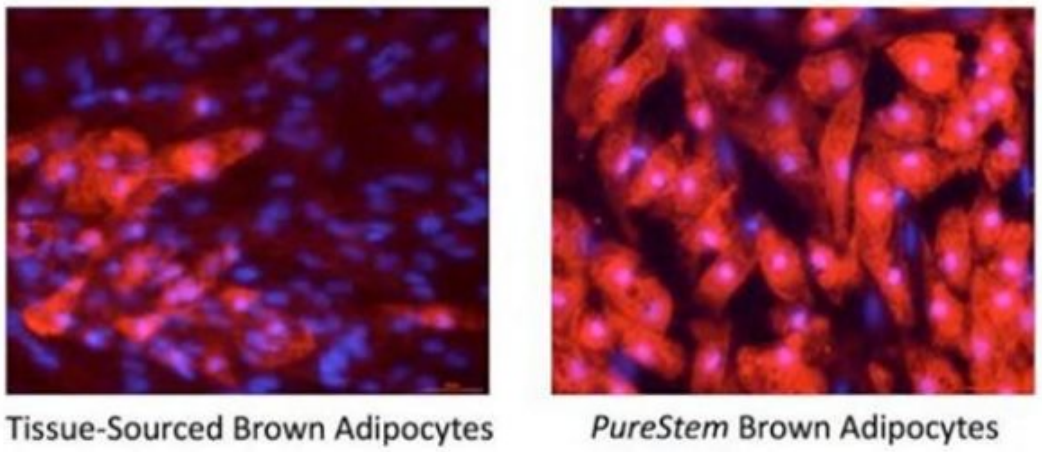

Figure 6. Human tissue-derived BAT cells (left) stained red for the presence of UCP1 show a minority of cells being true BAT cells. PureStem-derived AGEX-BAT1 cells are uniformly UCP1 positive.

The demonstration in published literature in the public domain that the transplantation of BAT from young mice to obese diabetic mice resulted in weight loss and increased insulin sensitivity has led to a search for a source of industrially-scalable clinical grade BAT cells as well as an appropriate matrix for lipotransfer. There currently is no FDA-approved matrix for cell transplantation. However, Lineage has completed a pivotal clinical trial of HyStem being developed as a replacement for whole adipose tissue in cell-assisted lipotransfer procedures. Therefore, we believe HyStem can be used for the delivery of BAT cells produced using PureStem technology. As shown in Figure 6, the *AGEX-BAT1* progenitors strongly express the BAT marker UCP1 when induced to differentiate and show a relatively high degree of purity compared to human tissue-derived BAT.

AgeX is currently optimizing process development for the initiation of preclinical development of the use of AGEX-BAT1.

AGEX-VASC1 - Vascular Progenitors

PureStem technology can also yield highly purified embryonic vascular components. As shown below, select clonal lines express markers such as VE-Cadherin (CDH5) and PECAM1, as well as VWF and other markers of venous, arterial, and lymphatic endothelium. Flow cytometry shows purity indistinguishable from 100%.

In addition to vascular endothelial cells, we have characterized vascular smooth muscle cell progenitors. This makes it possible for us to construct two of the key cellular components of arterial vessels, such as those compromised in coronary artery disease.

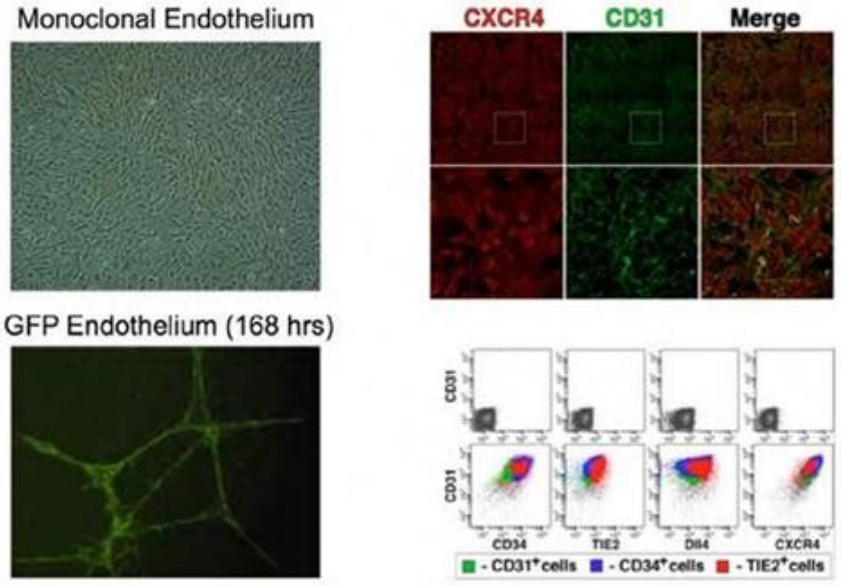

Figure 7. PureStem-derived vascular endothelial cell lines are capable of regenerating young vasculature (bottom left) and appear to have essentially 100% purity by FACs analysis.

HyStem hydrogels have been successfully used as a cell delivery matrix for endothelial progenitor cells to re-establish vasculature in hind limb ischemia models. Therefore, AgeX is currently optimizing process development for planned animal preclinical testing of AgeX-VASC1 formulated in HyStem for delivery into ischemic heart tissue to regenerate collateral circulation.

AGEX-iTR1547 — Induced Tissue Regeneration (iTR^{TM})

Leveraging our assets in pluripotency and bioinformatics, we have performed research manipulating cellular immortality and regenerative biology in human cells. In 2010, Lineage demonstrated the reversal of the developmental aging of human cells using transcriptional reprogramming technology. In 2017, we published certain markers of the Weismann barrier, and the high prevalence of a reversion back before the Weismann barrier in diverse cancer cell types cultured *in vitro*.

We extended this research to determine whether reprogramming can be modified to only reverse the aging of cells back before the Weismann Barrier, not back to pluripotency or transforming the cells into malignant counterparts. We have utilized for example the gene *COX7A1* as a marker of cells that have lost regenerative potential (crossed the Weismann Barrier).

As shown in Figure 8, our proprietary formulation AGEX-iTR1547 has demonstrated initial capability of reducing the expression of the marker gene *COX7A1* back to before the Weismann Barrier without reverting the cells to pluripotency. When implemented *in vivo*, this partial reprogramming, or iTR, would be expected to induce tissue regeneration, and when combined with telomerase, could modulate both cellular immortality and regenerative biology for therapeutic effect. We are performing research to optimize AGEX-iTR1547 in order to initiate preclinical studies of the agent on the scarless regeneration of the heart during congestive heart failure.

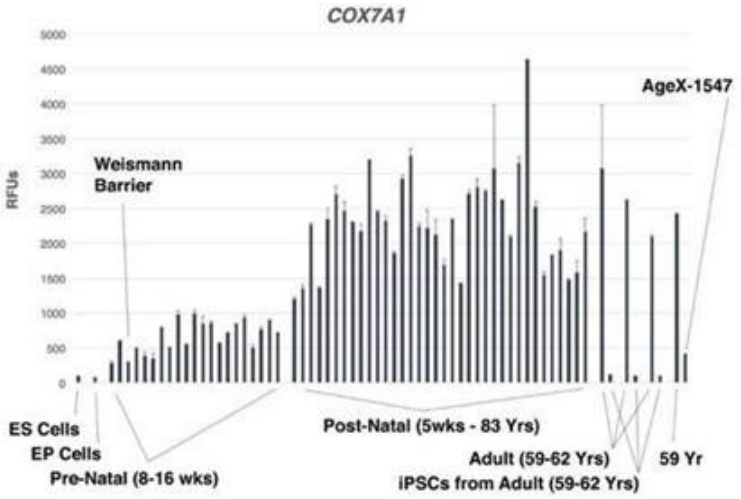

Figure 8. PSCs such as ES Cells and PureStem EP Cells display a regenerative capacity like cells that have not cross the Weismann Barrier. During pre- and post-natal development, skin cells become increasingly incapable of scarless regeneration as reflected in increasing *COX7A1* expression. iPS cell reprograming reverts cells back to pluripotency, while AgeX-iTR1547 reverts cells back only to a point prior to the Weismann Barrier (regenerative state).

Status and Development Plan

The product candidates we are developing are in the discovery stage of development. Prior to filing an Investigational New Drug (IND) application for the initiation of clinical trials of our initial product candidates, AGEX-BAT1, AGEX-VASC1, and AGEX-ITR1547, we will need to complete discovery-level research for the qualification of reagents used in the manufacture of the product, complete the standard operating procedures to be used (SOPs), complete the methods and documentation for characterization of the product, produce and test the genetic modifications in the master cell banks of the pluripotent stem cells under current Good Manufacturing Practices (cGMP) in order to produce product that will not illicit immune rejection following transplantation. In addition, we will be required to expand the numbers of the pluripotent stem cell master cell banks for future use, as well as produce working cell banks from which the product will be manufactured for clinical trials, produce the relevant product under cGMP conditions, expand the number of relevant cells and cryopreserve them under cGMP conditions. In addition, we will be required to design the pre-clinical studies including the study endpoints, perform biosafety testing and release the first clinical batch based on preliminary characterization results, and complete full product characterization. Biosafety testing will necessarily include pilot testing in animals such as (NOD/SCID) mice, dosing spiking studies at early and later endpoints, tumorgenicity and biodistribution studies to determine whether the cells form undesired tumors or migrate to inappropriate sites respectively in the animal. Lastly, we will need to define the clinical trial and regulatory strategy and hold Pre-Pre-IND and Pre-IND meetings with the Food and Drug Administration (FDA), as well as successfully submit an IND to the FDA and receive clearance to begin trials. Thereafter, we will need to demonstrate safety and efficacy of the product in human clinical trials in Phase I and II trials, and continued safety and efficacy for achieving the desired endpoint in Phase III trials, potentially then leading to product registration. See “Risk Factors — Risks Related to Our Business Operations” for discussion of risks relating to our preclinical development and clinical trials. These include, but are not limited to, failure to successfully complete the aforementioned studies due to the failure of the product, processes, or skills of our employees, unforeseen delays in the development process, failure to raise requisite financing, or failure to receive permission from the FDA to advance product development.

Because our product candidates are still in the discovery stage, our choice of product candidates and development plans are subject to change based on a variety of factors. We may determine to abandon the development of one or more of our product candidates, or we may prioritize the development of one or more product candidates, or we may select or acquire and prioritize the development of new product candidates. Our choice and prioritization of product candidates for development will be influenced by a variety of factors, including but not limited to:

- Results of our laboratory research and any animal and clinical trials that we may conduct;
- Our analysis of third-party competitive and alternative technology that may lead us to conclude that our product candidates or technologies may be non-competitive or obsolete;
- Our analysis of market demand and market prices for the products we plan to develop could lead us to conclude that market conditions are not favorable for receiving an adequate return on our investment in product development and commercialization;
- The amount of capital that we will have for our development programs and our projected costs for those programs;
- The issuance of patents to third parties that might block our use of the same or similar technology to develop a product candidate; and
- The views of the FDA and comparable foreign regulatory agencies on the pre-clinical product characterization studies required to file an IND in order to initiate human clinical testing of a therapeutic product candidate or to attain marketing approval for that product candidate, or to obtain an investigational device exemption for clinical trials, or clearance for a 510(k) application to market a medical device.

Other Products

Neural Stem Cells

During January 2020 we began a research collaboration under a Sponsored Research Agreement with the University of California at Irvine (UCI) using our PureStem technology to derive neural stem cells, with the goal of developing cellular therapies to treat neurological disorders and diseases. The collaboration's initial work is expected to take approximately one year. The primary goal of the research will be to develop a robust method of deriving neural stem cells from PSCs in sufficient quantity and with sufficient purity and identity for use in cell based therapy. The initial focus will be on Huntington's disease, while other potential targets may include Parkinson's, Alzheimer's, and stroke. UCI has already accumulated safety and efficacy animal data that may support an IND submission to the FDA as early as 2021 for the commencement of clinical trials to treat Huntington's disease.

The collaboration includes an opportunity for us to organize a company to be jointly owned with UCI and certain researchers to pursue clinical development and commercialization of cell therapies derived using licensed inventions arising from the research program, as well as certain patent pending technology for neural stem cell derivation, and certain technical data to support IND submissions.

Online Database Products

We, through our subsidiaries LifeMap Sciences and LifeMap Sciences Ltd, which are collectively referred to as LifeMap Sciences, conduct operations in the U.S. and Israel to commercialize the GeneCards Database Suite, which includes the relational databases GeneCards® and MalaCards™ licensed from the Yeda Research and Development Company Ltd. ("Yeda"), the technology transfer company of the Weizmann Institute of Science in Rehovot, Israel. The GeneCards Database Suite had approximately 3.5 million unique users in 2017 from diverse academic and commercial institutions. LifeMap Sciences obtains revenues from advertising as well as subscriptions from commercial entities. LifeMap Sciences also is building a product designated TGex™, which provides reports generated by the GeneCards knowledgebase intended for use by health care institutions and containing condensed information on particular genomic profiles of patients.

ESI BIO Research Products

We, through our ESI BIO research product division, market a number of products related to pluripotent stem cells including, research-grade as well as cGMP-grade human PSC lines. We plan to contract with third parties where the third parties to allow them to utilize cGMP PSCl lines in defined fields of application in exchange for certain compensation including the payment of royalties to us if they are successful in developing and commercializing a product.

Subsidiaries

As of and for the year ended December 31, 2019, AgeX consolidated the following subsidiaries:

Subsidiary	Field of Business	AgeX Ownership	Country
ReCyte Therapeutics	Early stage pre-clinical research and development involved in stem cell-derived endothelial and cardiovascular related progenitor cells for the treatment of vascular disorders, ischemic conditions and brown adipocytes for type-2 diabetes and obesity	94.8%	USA
LifeMap Sciences[(1)]	Biomedical, gene and disease databases and tools	81.7%	USA

(1) LifeMap Sciences includes LifeMap Sciences, Inc. and its wholly-owned subsidiary LifeMap Sciences, Ltd. an Israeli company.

All material intercompany accounts and transactions between AgeX and its subsidiaries have been eliminated in consolidation.

Manufacturing

Our success will depend in part on our ability to manufacture high quality cells, matrices, and small molecules. Unlike drug manufacturing, this quality needs to be performed at the beginning of the process of using PSCs. Therefore, we have acquired from Lineage cGMP-compatible stem cell lines. We have constructed a cGMP laboratory suitable for manufacturing cell lines and our cell based product candidates. We will require additional personnel and contracted services to comply with quality manufacturing processes and controls.

Facilities

Our offices and research laboratory are located in approximately 23,911 square feet of space in a building in an office and research park at 965 Atlantic Avenue, Alameda, California.

Commercialization Plan

With the exception of our research product sales which generate a trivial amount of revenues, we currently have no commercialized or marketed products such as FDA-approved drugs in our portfolio. As a result, we have not yet assembled an infrastructure for sales and marketing. At the point in time, if ever, that our product candidates approach clearance or approval, we plan to develop a commercial plan that may initially include strategic marketing partnerships.

Intellectual Property

Patents and Trade Secrets

We rely primarily on patents and contractual obligations with employees and third parties to protect our proprietary rights. We have sought, and intend to continue to seek, appropriate patent protection for important and strategic components of our proprietary technologies by filing patent applications in the U.S. and certain foreign countries. There are no assurances that any of our intellectual property rights will guarantee protection or market exclusivity for our products and product candidates. We also use license agreements both to access technologies developed by other companies and universities and to convey certain intellectual property rights to others. Our financial success will be dependent, in part, on our ability to obtain commercially valuable patent claims, to protect and enforce our intellectual property rights, and to operate without infringing upon the proprietary rights of others if we are unable to obtain enabling licenses.

The patents for our core programs are summarized below.

AGEX-BAT1

Brown Adipose Tissue (BAT) Progenitor Cells: The pending patent applications related to BAT progenitor cells, which are owned by AgeX, include U.S. and international patent applications. The applications are directed to the differentiation of pluripotent stem cells (including hES cells) into progenitor cell types capable of making the cellular components of brown fat. The patents also describe culture and purification methods. The approximate expiration dates of the BAT patents, if issued, will range from 2034 to 2036. The AGEX-BAT1 product may also rely on the HyStem patents, which are described in detail below under the heading "*HyStem® Technology*".

AGEX-VASC1

Vascular Progenitors: The pending patent application pertaining to purified vascular progenitor cells and embryonic vascular components are owned by AgeX or an AgeX subsidiary or licensed from Lineage. The patents include U.S. patent applications and are directed to methods to enhance vascular tube networks, compositions of pericyte progenitor cells, compositions of exosomes containing angiogenic molecules, compositions of vascular and lymphatic cells, and methods to culture and purify the cells or components thereof. The approximate expiration dates of the vascular progenitor patents, if issued, range from 2032 to 2038. We plan to file an international patent application claiming priority from a pending US provisional application by the filing deadline, which could lead to a patent that if issued would expire in 2039. The AGEX-VASC1 product may also rely on the HyStem patents, which are described in detail below, under the heading "*HyStem® Technology*".

AGEX-iTR1547

Induced Tissue Regeneration (iTR™): The pending patent applications related to the iTR programs, which are owned by AgeX, include applications pending, for example, in the United States, Australia, Canada, China, Europe, Japan and a pending international patent application. These patent applications are directed to compositions and methods for healing damaged tissue using the iTR treatment methods. The patent applications are also directed to treatment methods by regenerating aging tissue by modulating genes involved in tissue regeneration, including reprogramming cells and tissues back to a regenerative state. The approximate expiration dates of the iTR patents, if issued, will range from 2034 to 2039.

Other AGEX Licensed and Sublicensed Patents

PureStem® Progenitor Cells: The patents and pending applications related to our PureStem® technology include patents and applications in the United States, Canada, Europe and Australia. These patents are directed to methods for generating diverse isolated progenitor cell lines which generally do not express *COX7A1* and combinations of other methods for employing pluripotent stem cell lines suitable for clinical use. The pending applications are directed to clonally purified human embryonic progenitor cell lines and methods for reproducible, large scale production of clonally purified human embryonic progenitor cells, compositions and methods for generating diverse cell types, and assays useful in identifying hES cell lines and pluripotent cells resulting from the transcriptional reprogramming of somatic cells that have embryonic telomere length. The approximate expiration date of the PureStem® issued patents is 2031 and the approximate date of expiration of the pending patents, if issued, will range from 2029 to 2032.

The PureStem® patent portfolio includes patents and pending applications licensed from Advanced Cell Technology, Inc., which later became Ocata Therapeutics, Inc. ("Ocata"). The Ocata issued patents cover methods for reprogramming animal differentiated somatic cells to undifferentiated cells and methods for producing differentiated progenitor cells using morula-derived or inner cell mass cells from a blastocyst and expire from approximately 2020 to 2026. The Ocata pending applications relate to methods for the derivation of cells that have a reduced differentiation potential using PSCs, methods for reprogramming animal differentiated somatic cells to undifferentiated cells and methods for producing differentiated progenitor cells using morula-derived or inner cell mass cells from a blastocyst. The Ocata pending patents, if issued, will expire between 2020 and 2026.

HyStem® Technology: AgeX has a sublicense to the HyStem technology from Lineage and the technology was originally developed by the University of Utah Research Foundation with patents issued in the United States, Canada, Switzerland, Germany, Spain, France, UK, Ireland, Italy, Luxembourg, Monaco, Japan, Australia, and South Africa. The patents have claims covering compositions, pharmaceutical compositions with living cells methods of crosslinking, methods of making, methods of administering the compositions, and the use of the synthetic extracellular matrix in both research and clinical applications. The expiration dates of the HyStem® patents range from 2023 to 2027.

ESI Human Embryonic Stem Cell (*hES*) Cell Lines: AgeX licenses rights to the ES Cell International Pte. Ltd. patent portfolio with patents issued in the United States, Australia, Israel, UK, Singapore, Japan, and applications pending in the US and Europe. The patents are directed to methods for the differentiation of or enhancing the differentiation of stem cells into cardiomyocytes, neural cells, and pancreatic endoderm cells, compositions of pancreatic progenitor cells, methods of promoting the attachment, survival and/or proliferation of substantially undifferentiated stem cells in culture, methods for identifying and selecting cardiomyocytes, methods of freezing stem cells or progenitor cells, methods for identifying cardiogenic factors, compositions and methods for modulating spontaneous differentiation of a stem cell, methods of modulating the differentiation of undifferentiated, pluripotent human embryonic stem cells in culture, isolated endodermal progenitor cells, methods for transducing human embryonic stem cells, cell culture systems. The pending applications are directed to methods for the differentiation of hES cells into the three cell lineages, including for example cardiomyocytes, skeletal muscle cells, vascular endothelial cells, and pancreatic endoderm cells, as well as, various culture and purification methods and compositions and methods of treatment. The ESI issued patents will expire from 2019 to 2027, and the approximate date of expiration of the pending patents, if issued, will range from 2022 to 2027.

UniverCyte (HLA-G) Technology: In August 2018, we acquired from Escape Therapeutics patents and patent applications related to HLA-G-modified cells and methods of generating allogeneic cells with reduced risk of being rejected by patients regardless of the HLA class I haplotype. The patents and pending application related to our HLA-G modified cells technology include patents issued in the United States, Australia and Japan and applications are pending in the United States, Australia, Canada, China, Europe, Japan, Korea, and Singapore. The patents are directed to cells which are genetically modified to express a Human Leukocyte Antigen-G (HLA-G) and have reduced immunogenicity and improved immunosuppression, and nucleic acid compositions useful for generating the genetically modified cells. The pending applications are directed to compositions and methods for generating cells which are genetically modified to express HLA-G having reduced immunogenicity and improved immunosuppression, nucleic acid compositions useful for generating the genetically modified cells, and methods of producing artificial tissues using the genetically modified cells. The approximate expiration date of the UniverCyte™ (HLA-G) issued patents is 2033 and the approximate date of expiration of the pending patents, if issued, will also be 2033. We intend to use the UniverCyte™ technology in the development of our two lead product candidates, AGEX-BAT1 and AGEX-VASC1 for the treatment of Type II diabetes and cardiovascular aging, respectively. In addition, we may seek to license out or form collaborations for the use of our UniverCyte™ technology.

General Risks Related to Obtaining and Enforcing Patent Protection

There is a risk that any patent applications that we file and any patents that we hold or later obtain could be challenged by third parties and be declared invalid or infringing on third-party claims. Litigation, interferences, oppositions, inter partes reviews or other proceedings are, have been and may in the future be necessary in some instances to determine the validity and scope of certain of our proprietary rights, and in other instances to determine the validity, scope or non-infringement of certain patent rights claimed by third parties to be pertinent to the manufacture, use or sale of our products. We may also face challenges to our patent and regulatory protections covering our products by third parties, including manufacturers of generics and biosimilars that may choose to launch or attempt to launch their products before the expiration of our patent or regulatory exclusivity. Litigation, interference, oppositions, inter partes reviews, administrative challenges or other similar types of proceedings are unpredictable and may be protracted, expensive and distracting to management. The outcome of such proceedings could adversely affect the validity and scope of our patent or other proprietary rights, hinder our ability to manufacture and market our products, require us to seek a license for the infringed product or technology or result in the assessment of significant monetary damages against us that may exceed any amounts that we may accrue on our financial statements as a reserve for contingent liabilities. An adverse determination in a judicial or administrative proceeding or a failure to obtain necessary licenses could prevent us from manufacturing or selling our products. Furthermore, payments under any licenses that we are able to obtain would reduce our profits derived from the covered products and services.

The enforcement of patent rights often requires litigation against third-party infringers, and such litigation can be costly to pursue. Even if we succeed in having new patents issued or in defending any challenge to issued patents, there is no assurance that our patents will be comprehensive enough to provide us with meaningful patent protection against our competitors.

In addition to relying on patents, we rely on trade secrets, know-how, and continuing technological advancement to maintain our competitive position. We have entered into intellectual property, invention, and non-disclosure agreements with our employees, and it is our practice to enter into confidentiality agreements with our consultants. There can be no assurance, however, that these measures will prevent the unauthorized disclosure or use of our trade secrets and know-how, or that others may not independently develop similar trade secrets and know-how or obtain access to our trade secrets, know-how, or proprietary technology.

Our Licensing Arrangements

License Agreement with Lineage: iTR, PureStem® and Telomere Length

Concurrently with the contribution of assets to us by Lineage under an Asset Contribution and Separation Agreement, we entered into a License Agreement with Lineage pursuant to which Lineage has licensed to us, with rights to sublicense, certain intellectual property, including patents and patent applications and know-how for use in the development, manufacture and commercialization of products or services for the prevention, treatment, amelioration, diagnosis or monitoring of all human and non-human animal diseases and conditions except for the field of medical products, devices and services for the reserved Lineage fields of orthopedic, ophthalmic, and medical aesthetic uses (the "Lineage Exclusive Field"). In addition, Lineage retains an option right, on terms to be negotiated, to license iTR patents in research, development, manufacturing and commercialization of treatments based on iTR in the Lineage Exclusive Field. The licensed patents and know-how relate generally to (a) Lineage's PureStem® human embryonic progenitor cell lines, and (b) telomere length and DNA quality control analysis in pluripotent stem cells.

The Lineage patent rights licensed to us are exclusive and worldwide except for existing third-party licenses, and for medical products, devices, and services related to tendon. We additionally received an option to license certain Lineage retained rights outside of orthopedic indications unless a license grant would compete with a Lineage program or products in the Lineage Exclusive Field.

The License Agreement contains customary provisions pertaining to patent maintenance, enforcement, and defense and related cost allocations, insurance, indemnification, and termination of the license in the event of a breach or default by a party, or the bankruptcy or other insolvency event with respect to a party.

Additional License and Sublicense Agreements

Lineage and certain Lineage subsidiaries also entered into agreements pursuant to which they have licensed or sublicense to us, on a non-exclusive, world-wide, royalty bearing basis, certain additional patents and patent rights and know-how relating to Lineage HyStem® hydrogel technology, human embryonic progenitor cell technology, and human pluripotent stem cell lines and technology for use outside the Lineage Exclusive Fields, or in the case of certain sublicense rights, fields previously licensed to third parties.

Hydrogel Patent License and Sublicense

Lineage has granted to us a sublicense of certain patents licensed to Lineage by the University of Utah Research Foundation (the "Utah Sublicense"), and has granted to us a direct license of certain patents held by Lineage (the "HyStem License"), related to HyStem® hydrogel technology for use outside of the Lineage Exclusive Field for products that include cells and that are covered by certain other patents contributed, licensed, or sublicensed to us by Lineage. We may only develop, sell, and otherwise commercialize a product under the Utah Sublicense and HyStem License if we spend at least a low seven figure amount on research with respect to the product. Lineage will agree to provide us with a reasonable amount of the hydrogel product for the purpose of our research for we will pay Lineage's cost of manufacturing and supplying the hydrogel.

The Utah Sublicense and the HyStem License will not permit sublicensing and will be non-exclusive for medical products, devices, and services related to human tendon, and will be exclusive for all other licensed fields. The Utah Sublicense and HyStem License will expire upon the latest expiration date of a sublicensed or licensed patent, unless terminated earlier pursuant to the respective agreements. We will pay Lineage a royalty, in an amount not exceeding 10 percent, on "net sales" as defined in the Utah Sublicense and HyStem License. Commencing June 30, 2019, and for each 12-month period thereafter, we will pay Lineage a minimum royalty in the low five figures regardless of the actual amount of net sales for the applicable period.

The foregoing description of the HyStem License and the Utah Sublicense is qualified in its entirety by reference to the HyStem License Agreement and the Utah Sublicense Agreement, copies of which are filed as Exhibits to our Registration Statement on Form 10 and are incorporated herein by reference.

Sublicense of Certain Progenitor Patents

Lineage has granted to us a sublicense of certain patents licensed to Lineage that pertain to the derivation of human embryonic progenitor cell lines. The sublicense will permit us to use the sublicensed patents for the treatment, palliation, diagnosis, or prevention of any disease, disorder or health condition outside of the Lineage Exclusive Field. The sublicense expires the later of July 10, 2028 or the latest expiration date of a sublicensed patent, unless terminated earlier pursuant to the terms of the sublicense.

We will pay Lineage a royalty on "net sales," as defined in the sublicense agreement, until the royalty payments to Lineage's licensor by Lineage total $1.2 million and thereafter will pay to Lineage a low single digit royalty on its own net sales and a low double digit royalty on sublicensing consideration.

If we grant a sublicense to use the patents, we will pay Lineage a portion of any consideration received for a sublicense, including but not limited to, upfront payments and milestones, and non-cash exchanges or considerations, but not payments for developing a product, service or process. If we become obligated to pay royalties to one or more affiliates of Lineage for the use of patent rights related to this sublicense and as a result, the royalties payable to Lineage with respect to royalties under the sublicense plus the royalties payable to the affiliates would exceed a designated amount of net sales, the royalties due to Lineage may be reduced but not less than the designated amount. In addition, we will pay to Lineage a royalty on "net sales," as defined in the sublicense agreement, by the sublicensee. If we become obligated to pay royalties to one or more affiliates of Lineage for the use of patent rights related to this sublicense and as a result, the royalties payable to Lineage with respect to sales by a sublicensee plus the royalties payable to the affiliates would exceed a designated amount of net sales, the royalty due on net sales by the sublicensee may be reduced but not less than the designated amount.

The sublicense agreement includes reciprocal cross-licenses between Lineage and us with respect to any new patents that may be issued based on the use of the sublicensed patents. Any such license to Lineage will be exclusive in the Lineage Exclusive Field and nonexclusive in all other licensed fields. Any such license from Lineage to us will be for use outside the Lineage Exclusive Field and for medical products or services involving tendon. Each license will be for a term of 10 years.

The foregoing description of the sublicense agreement is qualified in its entirety by reference to the sublicense agreement, a copy of which is filed as an exhibit to our Registration Statement on Form 10 and is incorporated herein by reference.

ESI License

Lineage's subsidiary ES Cell International Pte, or ESI, has granted to us non-exclusive rights to certain ESI patents and human pluripotent stem cell lines, or ESI Cell Lines, for use outside of the Lineage Exclusive Field and outside certain other fields for which ESI has previously granted licenses. We will pay ESI a royalty, in an amount not exceeding 10 percent, on "net sales," as defined in the license agreement. If we become obligated to pay royalties to one or more third party or to Lineage for the use of patent rights related to this license and as a result the royalties payable to ESI with respect to this license agreement plus the royalties payable to such third party or Lineage would exceed a designated amount of net sales, the royalty due on net sales by the sublicensee may be reduced. The patent license expires upon the latest expiration date of a licensed patent, unless terminated earlier pursuant to the terms of the license. All other rights under the license are terminable by either party under the conditions specified in the license.

If we grant rights to any third party to use ESI Cell Lines derived under cGMP, we will pay ESI a share of all consideration that we receive as consideration for the grant of those rights, including all cash and non-cash consideration but not royalties. We are not permitted to grant sublicenses to the licensed ESI patents but may sublicense the use of ESI Cell Lines.

The foregoing description of the ESI License Agreement is qualified in its entirety by reference to the ESI License Agreement, a copy of which is filed as an exhibit to our Registration Statement on Form 10 and is incorporated herein by reference.

Competition

The biotechnology industry is highly competitive and characterized by rapid change (even disruptive advances) that challenge the ability of any one company to maintain leadership. Therefore, we face competition on multiple fronts, including from other biotechnology companies, large pharmaceutical companies, academic institutions and government research entities. We believe the competitive advantages of our technology platform and resulting product candidates arise from the large market opportunities addressed by our product candidates, their anticipated safety profile, the expected cost of manufacture of off-the-shelf products, our intellectual property, as well the fundamental and widespread role of cell aging and regeneration in human age-related degenerative disease.

There are numerous biotechnology companies developing therapeutics for human aging, with each company often focusing on a specific molecular pathway within cells. For example, ResTORbio, Inc. is developing modulators of the mechanistic target of rapamycin (mTOR) pathway to treat immunological and cardiovascular disorders. Calico Life Sciences LLC is a Google-founded research and development company aimed at identifying molecular pathways that control animal lifespan and translating these insights into novel therapeutics designed to increase human healthspan. Calico has not disclosed its lead product development plans. Unity Biotechnology, Inc. focuses on cellular senescence, in particular, the use of agents that can target senescent cells for selective ablation (senolysis). Unity's stated targeted age-related diseases include osteoarthritis as well as other ophthalmological and pulmonary diseases.

Our therapeutic product candidates in development are likely to face competition from a large number of companies and technological strategies including therapeutics intended to address our lead indications, including:

- Type II diabetes: current standard of care treatments (though not necessarily focused on the root cause of the disease) include dieting and exercise programs to reduce weight, or pharmacological interventions with a wide array of medications, including: Metformin (Glucophage, Glumetza, or others); (DiaBeta, Glynase), glipizide (Glucotrol) and glimepiride (Amaryl); Meglitinides (repaglinide (Prandin) and nateglinide (Starlix)); Thiazolidinediones (rosiglitazone (Avandia) and pioglitazone (Actos)); DPP-4 (sitagliptin (Januvia), saxagliptin (Onglyza) and linagliptin (Tradjenta)); GLP-1 receptor agonists (exenatide (Byetta) and liraglutide (Victoza)); SGLT2 inhibitors (canagliflozin (Invokana) and dapagliflozin (Farxiga)); and insulin therapy (Insulin glulisine (Apidra), Insulin lispro (Humalog), Insulin asgpart (Novolog), Insulin glargine (Lantus), Insulin detemir (Levemir), Insulin isophane (Humulin N, Novolin N)).

- Vascular ischemiam, including myocardial ischemia: current standard of care treatments including dieting, lowered intake of cholesterol, daily aspirin as a blood thinner; pharmacological agents including but not limited to nitrates as vasodilators (nitroglycerin sublingual tablet (Nitrostat), nitroglycerin transdermal ointment (Nitro-Bid), and isosorbide mononitrate and dinitrate (Isordil, Isordil Titradose, Dilatrate-SR)); beta blockers (atenolol (Tenormin), metoprolol (Lopressor, Toprol XL), and nadolol (Corgard)); calcium channel blockers (amlodipine (Norvasc), amlodipine and atorvastatin (Caduet), amlodipine and benazepril (Lotrel), diltiazem (Cardizem), felodipine (Cardene, Cardene SR), and verapamil (Calan); cholesterol-lowering medications such as statins atorvastatin (Lipitor), rosuvastatin (Crestor), and simvastatin (Zocor); Angiotensin-converting enzyme (ACE) inhibitors (Ranolazine (Ranexa), benazepril (Lotensin), and lisinopril (Prinivil, Zestril, Qbrelis); and surgical procedures to increase circulation including but not limited to angioplasty and stenting, coronary artery bypass surgery, and enhanced external counterpulsation.

Many of our competitors have greater financial, collaborative, technical, regulatory, and human resources as well as products more advanced in development than our product pipeline, including products already marketed for our target indications. As a result, these competitors may have great success in obtaining regulatory approvals, reimbursement, or market acceptance. Our competitors, may have greater success in attracting qualified personnel, recruiting clinical trial sites, or in establishing strategic partnerships with larger pharmaceutical companies to fund large late-stage clinical trials or product marketing. In addition, our future business could be limited should our competitors commercialize products demonstrated to be more effective, safer, or less expensive than our comparable products.

Government Regulation and Product Approval

Government authorities at the federal, state, and local level, and in other countries, extensively regulate among other things, the development, testing, manufacture, quality, approval, safety, efficacy, distribution, labeling, packaging, storage, record keeping, marketing, import/export, and promotion of drugs, biologics, and medical devices. Authorities also heavily regulate many of these activities for human cells, tissues, and cellular and tissue-based products ("HCT/Ps").

FDA and Foreign Regulation of Therapeutic Products

The FDA and foreign regulatory authorities will regulate our proposed products as drugs, biologicals, or medical devices, depending upon such factors as: the use to which the product will be put, the chemical composition of the product, and the interaction of the product with the human body. In the United States, the FDA regulates drugs and biologicals under the Federal Food, Drug and Cosmetic Act ("FDCA"), the Public Health Service Act ("PHSA"), and implementing regulations. In addition, establishments that manufacture human cells, tissues, and cellular and tissue-based products are subject to additional registration and listing requirements, including current good tissue practice regulations. To the extent AgeX develops cellular and tissue-based products or therapies, its products will be subject to review by the FDA staff in its Center for Biologics Evaluation and Research ("CBER") Office of Cellular, Tissue, and Gene Therapies. In some instances, AgeX's clinical study protocol for a cell therapy product must be reviewed by the National Institute of Health through its Recombinant DNA Advisory Committee.

Any human drug and biological products that we may develop for testing, marketing, or use in the United States will be subject to rigorous FDA review and approval procedures. After testing in animals to evaluate the potential efficacy and safety of the product candidate, an investigational new drug ("IND") submission must be made to the FDA to obtain authorization for human testing. Extensive clinical testing, which is generally done in three phases, must then be undertaken at a hospital or medical center to demonstrate optimal use, safety, and efficacy of each product in humans. Each clinical study is conducted under the auspices of an independent Institutional Review Board ("IRB"). The IRB will consider, among other things, ethical factors, the safety of human subjects, and the possible liability of the institution.

Clinical trials are generally conducted in three "phases." Phase I clinical trials are conducted in a small number of healthy volunteers or volunteers with the target disease or condition to assess safety. Phase II clinical trials are conducted with groups of patients afflicted with the target disease or condition in order to determine preliminary efficacy, optimal dosages and expanded evidence of safety. In some cases, an initial trial is conducted in diseased patients to assess both preliminary efficacy and preliminary safety, in which case it is referred to as a Phase I/II trial. Phase III trials are large-scale, multi-center, comparative trials and are conducted with patients afflicted with the target disease or condition in order to provide enough data to demonstrate the efficacy and safety required by the FDA. The FDA closely monitors the progress of each of the three phases of clinical testing and may, at its discretion, re-evaluate, alter, suspend, or terminate the clinical trial based upon the data which have been accumulated to that point and its assessment of the risk/benefit ratio to the intended patient population. All adverse events must be reported to the FDA. Monitoring of all aspects of the study to minimize risks is a continuing process. The time and expense required to perform this clinical testing can far exceed the time and expense of the research and development initially required to create the product.

No action can be taken to market any therapeutic product in the U.S. until an appropriate New Drug Application ("NDA") or Biologics License Application ("BLA") has been approved by the FDA. Submission of the application is no guarantee that the FDA will find it complete and accept it for filing. If an application is accepted for filing, following the FDA's review, the FDA may grant marketing approval, request additional information, or deny the application if it determines that the application does not provide an adequate basis for approval. FDA regulations also restrict the export of therapeutic products for clinical use prior to FDA approval. To date, the FDA has not granted marketing approval to any pluripotent stem-based therapeutic products and it is possible that the FDA or foreign regulatory agencies may subject our product candidates to additional or more stringent review than drugs or biologicals derived from other technologies.

The FDA offers several programs to expedite development of products that treat serious or life-threatening illnesses and that provide meaningful therapeutic benefits to patients over existing treatments. A product may be eligible for breakthrough therapy designation if it treats a serious or life-threatening disease or condition and preliminary clinical evidence indicates it may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints. In 2017, FDA established a new regenerative medicine advanced therapy ("RMAT") designation as part of its implementation of the 21st Century Cures Act. An RMAT is defined as a cell therapy, therapeutic tissue engineering product, human cell and tissue product, or any combination product using such therapies or products, with limited exceptions that is intended to treat, modify, reverse, or cure a serious or life-threatening disease or condition; and preliminary clinical evidence indicates that it has the potential to address unmet medical needs for such a disease or condition. RMAT designation provides potential benefits that include more frequent meetings with FDA to discuss the development plan for the product candidate and eligibility for rolling review and priority review. Products granted RMAT designation may also be eligible for accelerated approval on the basis of a surrogate or intermediate endpoint reasonably likely to predict long-term clinical benefit, or reliance upon data obtained from a meaningful number of sites, including through expansion to additional sites. Once approved, when appropriate, the FDA can permit fulfillment of post-approval requirements under accelerated approval through the submission of clinical evidence, clinical studies, patient registries, or other sources of real world evidence such as electronic health records; through the collection of larger confirmatory datasets; or through post-approval monitoring of all patients treated with the therapy prior to approval.

Some of our future products may be eligible for RMAT designation. There is no assurance that the FDA will grant breakthrough therapy, accelerated approval or RMAT status to any of our product candidates.

In addition to regulations in the United States, we are subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of our products. Whether or not we obtain FDA approval for a drug candidate, we must obtain approval by the comparable regulatory authorities of foreign countries or economic areas, such as the European Union, before we can commence clinical trials or market products in those countries or areas. The approval process and requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from place to place, and the time may be longer or shorter than that required for FDA approval.

Combination Products

If we develop any products that are used with medical devices, they may be considered combination products, which are defined by the FDA to include products comprised of two or more regulated components or parts such as a biologic and a device. For example, we may use HyStem® hydrogels to administer one or more pluripotent stem cell-based therapy products. When regulated independently, biologics and devices each have their own regulatory requirements. However, regulatory requirements for a combination product comprised of a biologic administered with a delivery device can be more complex, because in addition to the individual regulatory requirements for each component, additional combination product regulatory requirements may apply.

510(k) Medical Devices & Notification

Product marketing in the U.S. for most Class II and limited Class I devices typically follows a 510(k) pathway. To obtain 510(k) clearance, a manufacturer must submit a premarket notification demonstrating that the proposed device is substantially equivalent to a legally marketed device, referred to as the predicate device. A predicate device may be a previously 510(k) cleared device or a device that was in commercial distribution before May 28, 1976 for which the FDA has not yet called for submission of PMA applications, or a product classification created by FDA when it granted de novo authorization. The manufacturer must show that the proposed device has the same intended use as the predicate device, and it either has the same technological characteristics, or it is shown to be equally safe and effective and does not raise different questions of safety and effectiveness as compared to the predicate device.

There are three types of 510(k)s: traditional; special, for devices that are modified and the modification needs a new 510(k) but the modification does not affect the intended use or alter the fundamental scientific technology of the device; and abbreviated, for devices that conform to a recognized standard. The special and abbreviated 510(k)s are intended to streamline review. The FDA intends to process special 510(k)s within 30 days of receipt and abbreviated 510(k)s within 90 days of receipt. Though statutorily required to clear a traditional 510(k) within 90 days of receipt, the clearance pathway for traditional 510(k)s can take substantially longer.

After a device receives 510(k) clearance, any modification that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, requires a new 510(k) clearance or could require a PMA approval. The FDA requires each manufacturer to make this determination in the first instance, but the FDA can review any such decision. If the FDA disagrees with a manufacturer's decision not to seek a new 510(k) clearance, the agency may retroactively require the manufacturer to seek 510(k) clearance or PMA approval. The FDA also can require the manufacturer to cease marketing and/or recall the modified device until 510(k) clearance or PMA approval is obtained.

Post-Approval Matters

Even after initial FDA approval has been obtained, further studies may be required to provide additional data on safety or to gain approval for the use of a product as a treatment for clinical indications other than those initially targeted. Data resulting from these clinical trials may result in expansions or restrictions to the labeled indications for which a product has already been approved.

FDA Regulation of Manufacturing

The FDA regulates the manufacturing process of pharmaceutical products, human tissue and cell products, and medical devices, requiring that they be produced in compliance with cGMP. The FDA regulates and inspects equipment, facilities, laboratories, and processes used in the manufacturing and testing of products prior to providing approval to market products. If after receiving approval from the FDA, a material change is made to manufacturing equipment or to the location or manufacturing process, additional regulatory review may be required. The FDA also conducts regular, periodic visits to re-inspect the equipment, facilities, laboratories and processes of manufacturers following an initial approval. If, as a result of those inspections, the FDA determines that that equipment, facilities, laboratories or processes do not comply with applicable FDA regulations and conditions of product approval, the FDA may seek civil, criminal or administrative sanctions and/or remedies against the manufacturer, including suspension of manufacturing operations. Issues pertaining to manufacturing equipment, facilities or processes may also delay the approval of new products undergoing FDA review.

Federal Funding of Research

Effective July 7, 2009, the National Institutes of Health ("NIH") adopted guidelines on the use of hES cells in federally funded research, consistent with President Obama's Executive Order which rescinded President Bush's Executive Orders that permitted federal funding of research on hES cells using only the limited number of hES cell lines. The central focus of the guidelines is to assure that hES cells used in federally funded research are derived from human embryos that were created for reproductive purposes, are no longer needed for this purpose, and are voluntarily donated for research purposes with the informed written consent of the donors. Those hES cells that were derived from embryos created for research purposes rather than reproductive purposes, and other hES cells that were not derived in compliance with the guidelines, are not eligible for use in federally funded research.

California State Regulations

The state of California has adopted legislation and regulations that require institutions that conduct stem cell research to notify, and in certain cases obtain approval from, a Stem Cell Research Oversight Committee ("SCRO Committee") before conducting the research. Under certain California regulations, all hES cell lines that will be used in our research must be acceptably derived. California regulations further require certain records to be maintained with respect to stem cell research and the materials used. AgeX programs that involve the use of stem cells will be reviewed by a SCRO Committee to confirm compliance with federal and state guidelines. The hES cell lines that we use are all on the NIH registry of lines that have been reviewed and meet standards for federal funding grants.

Health Insurance Portability and Accountability Act

Under the Health Insurance Portability and Accountability Act ("HIPAA"), the Department of Health and Human Services ("HHS") has issued regulations to protect the privacy and security of protected health information used or disclosed by health care providers. HIPAA also regulates standardization of data content, codes, and formats used in health care transactions and standardization of identifiers for health plans and providers. Penalties for violations of HIPAA regulations include civil and criminal penalties.

The requirements under these regulations may periodically change and could have an effect on our business operations if compliance becomes substantially more costly than under current requirements. New laws governing privacy may also be adopted in the future. We can provide no assurance that we will remain in compliance with diverse privacy requirements in all of the jurisdictions in which we do business. Failure to comply with privacy requirements could result in civil or criminal penalties, which could have a materially adverse effect on our business.

Federal and State Fraud and Abuse Laws

We are also subject to various laws pertaining to healthcare "fraud and abuse," including anti-kickback laws and false claims laws. Anti-kickback laws make it illegal to solicit, offer, receive or pay any remuneration in exchange for or to induce the referral of business, including the purchase or prescription of a particular drug that is reimbursed by a state or federal program. False claims laws prohibit knowingly and willingly presenting or causing to be presented for payment to third-party payers (including Medicare and Medicaid) any claims for reimbursed drugs or services that are false or fraudulent, claims for items or services not provided as claimed or claims for medically unnecessary items or services. Violations of fraud and abuse laws may be punishable by criminal and/or civil sanctions, including fines and civil monetary penalties, as well as by the possibility of exclusion from federal healthcare programs (including Medicare and Medicaid). Liability under the false claims laws may also arise when a violation of certain laws or regulations related to the underlying products (e.g., violations regarding improper promotional activity or unlawful payments) contributes to the submission of a false claim.

Additionally, the U.S. Foreign Corrupt Practices Act ("FCPA") prohibits U.S. corporations and their representatives from offering, promising, authorizing or making payments to any foreign government official, government staff member, political party or political candidate in an attempt to obtain or retain business abroad. The scope of the FCPA includes interactions with certain healthcare professionals in many countries. Other countries have enacted similar anti-corruption laws and/or regulations.

Healthcare Reform

In the United States and foreign jurisdictions, there have been a number of legislative and regulatory changes to the healthcare system that could affect our future results of operations. There have been and continue to be a number of initiatives at the United States federal and state levels that seek to reduce healthcare costs.

In particular, the Affordable Care Act ("ACA") has had, and is expected to continue to have, a significant impact on the healthcare industry. The ACA was designed to expand coverage for the uninsured while at the same time containing overall healthcare costs. Substantial new provisions affecting compliance have also been enacted, which may require us to modify our business practices with healthcare providers and entities, and a significant number of provisions are not yet, or have only recently become, effective.

Since its enactment, there have been judicial and Congressional challenges to certain aspects of the ACA, as well as efforts by the current administration to repeal or replace certain aspects of the ACA. For example, since January 2017, the President has signed two Executive Orders and other directives designed to delay, circumvent, or loosen certain requirements mandated by the ACA. Concurrently, Congress has considered legislation that would repeal or repeal and replace all or part of the ACA. While Congress has not passed comprehensive repeal legislation, two bills affecting the implementation of certain taxes under the ACA were signed into law. The Tax Cuts and Jobs Act of 2017, or the Tax Act, includes a provision repealing, 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, on January 22, 2018, the President signed a continuing resolution on appropriations for fiscal year 2018 that delayed the implementation of certain ACA-mandated fees, including the so-called "Cadillac" tax on certain high cost employer-sponsored insurance plans, the annual fee imposed on certain health insurance providers based on market share, and the medical device excise tax on non-exempt medical devices. Further, the Bipartisan Budget Act of 2018, or the BBA, among other things, amends the ACA, effective January 1, 2019, to close the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole," and increase from 50% to 70% the point-of-sale discount that is owed by pharmaceutical manufacturers who participate in the Medicare Part D program. There may be additional challenges and amendments to the ACA in the future. The ACA is likely to continue the downward pressure on pharmaceutical pricing and may also increase our regulatory burdens and operating costs.

Further, there has been heightened government scrutiny over the manner in which manufacturers set prices for their marketed pharmaceutical products. 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 pharmaceutical product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for products. At the federal level, the current administration's budget proposal for fiscal year 2019 contains further drug price control measures that could be enacted during the 2019 budget process or in other future legislation, including, for example, measures to permit Medicare Part D plans to negotiate the price of certain drugs under Medicare Part B, to allow some states to negotiate drug prices under Medicaid, and to eliminate cost sharing for generic drugs for low-income patients. Additionally, on May 11, 2018, President Trump laid out his administration's "Blueprint to Lower Drug Prices and Reduce Out-of-Pocket Costs" to reduce the cost of prescription drugs while preserving innovation and cures. The Department of Health and Human Services has already started the process of soliciting feedback on some of these measures and, at the same, is immediately implementing others under its existing authority. Although some of these and other proposals will require authorization through additional legislation to become effective, Congress and the Trump administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs. At the state level, legislatures have become increasingly aggressive in passing legislation and implementing 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.

It is uncertain whether and how future legislation, whether domestic or foreign, could affect prospects for our product candidates or what actions foreign, federal, state, or private payors for health care treatment and services may take in response to any such health care reform proposals or legislation. Adoption of price controls and other cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures reforms may prevent or limit our ability to generate revenue, attain profitability or commercialize our product candidates.

Moreover, the Drug Supply Chain Security Act imposes new obligations on manufacturers of pharmaceutical products, among others, related to product tracking and tracing, which is being phased in over several years beginning in 2015. Among the requirements of this new legislation, manufacturers will be required to provide certain information regarding the drug product to individuals and entities to which product ownership is transferred, label drug product with a product identifier, and keep certain records regarding the drug product. The transfer of information to subsequent product owners by manufacturers will eventually be required to be done electronically. Manufacturers will also be required to verify that purchasers of the manufacturers' products are appropriately licensed. Further, under this new legislation, manufacturers will have drug product investigation, quarantine, disposition, and notification responsibilities related to counterfeit, diverted, stolen, and intentionally adulterated products, as well as products that are the subject of fraudulent transactions or which are otherwise unfit for distribution such that they would be reasonably likely to result in serious health consequences or death.

Reimbursement

Medicare, Medicaid, and Third-Party Reimbursement Programs

Sales of the therapeutic products and medical devices that we and our subsidiaries may develop will depend, in part, on the extent to which the costs of those products will be covered by third-party payors, such as government health programs, commercial insurance, and managed healthcare organizations.

The containment of healthcare costs has become a priority of federal and state governments and the prices of drugs have been a focus in this effort. In the United States, the federal and many state governments have adopted or proposed initiatives relating to Medicaid and other health programs that may limit reimbursement or increase rebates that providers are required to pay to the state. In addition to government regulation, managed care organizations in the United States, which include medical insurance companies, medical plan administrators, health-maintenance organizations, hospital and physician alliances and pharmacy benefit managers, continue to put pressure on the price and usage of healthcare products. Managed care organizations and third-party payers seek to contain healthcare expenditures, and their purchasing strength has been increasing due to their consolidation into fewer, larger organizations and a growing number of enrolled patients. Adoption of price controls, cost-containment measures, and more restrictive policies in jurisdictions with existing controls and measures, could further limit our net revenue and results. If third-party payors do not consider the products we develop to be cost-effective compared to other therapies, they may not cover our products as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products on a profitable basis.

Efforts by government agencies and state legislatures in the United States could affect us and our industry. The ACA increased many of the mandatory discounts and rebates and imposed a new Branded Prescription Pharmaceutical Manufacturers and Importers fee payable by manufacturers. The new U.S. presidential administration has identified repealing and replacing the ACA as a priority. The timing and method of the full or partial repeal or amendment of the ACA or the adoption of new healthcare legislation remains uncertain, but impending changes will likely impact the number of patient lives covered, the quality of the insurance, Medicaid eligibility and the level of patient protections provided.

Other legislative and regulatory actions that would have a significant impact include: changes to how the Medicare program covers and reimburses current and future drugs, changes in the Federal payment rate or new rebate requirements for covered drugs and policies for payment in Medicare or Medicaid; and changes to coverage and payment for biosimilars, including the current Medicare biosimilar coverage and payment policies intended to encourage biosimilar adoption, or other policies that provide easier substitution or reimbursement advantages.

We face similar issues outside of the United States. In some non-U.S. jurisdictions, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the EU provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for aa medicinal product, or it may instead adopt a system of direct or indirect controls on the profitability of placing a medicinal product on the market. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products. Historically, products launched in the EU do not follow price structures of the United States and generally tend to be significantly lower.

Employees

As of December 31, 2019, we employed 17 persons on a full-time basis, of which seven employees hold Ph.D.'s in one or more fields of science.

Item 1A. Risk Factors

Our business is subject to various risks, including those described below. You should consider the following risk factors, together with all of the other information included in this Report, which could materially adversely affect our proposed operations, our business prospects, and financial condition, and the value of an investment in our business. There may be other factors that are not mentioned here or of which we are not presently aware that could also affect our business operations and prospects.

Risks Related to Our Business Operations

We need additional financing to execute our operating plan and continue to operate as a going concern.

As required under Accounting Standards Update 2014-15, *Presentation of Financial Statements-Going Concern* (ASC 205-40), we have the responsibility to evaluate whether conditions and/or events raise substantial doubt about our ability to meet our future financial obligations as they become due within one year after the date the financial statements are issued. Based on our most recent projected cash flows, we believe that our cash and cash equivalents, even with the New Loan Agreement from Juvenescence described in Note 9 to our consolidated financial statements included elsewhere in this Report, would not be sufficient to satisfy our anticipated operating and other funding requirements for the next twelve months from the date of filing of this Report. These factors raise substantial doubt regarding our ability to continue as a going concern and the report of our independent registered public accountants accompanying our audited financial statements in this Report contains a qualification to such effect. Because we will continue to experience net operating losses, our ability to continue as a going concern is subject to our ability to obtain necessary capital from outside sources, including obtaining additional capital from the sale of our equity securities or assets, obtaining additional loans from financial institutions or investors, and entering into collaborative research and development arrangements or licensing some or all of our patents and know-how to third parties while retaining a royalty and other contingent payment rights related to the development and commercialization of products covered by the licenses. Any such collaborative research and development or licensing arrangements may generate significantly less revenue for us than we would receive if we were to successfully develop and market products on our own, or if we were to enter into such arrangements when our technologies and product candidates are at a later stage of development. Our continued net operating losses and the risks associated with the development of our product candidates and technologies will increase the difficulty in obtaining such capital, and there can be no assurances that we will be able to obtain such capital on favorable terms or at all. If we are unable to raise capital when needed, we may be forced to delay, reduce or eliminate our research and development activities, or ultimately not be able to continue as a going concern.

Our New Loan Agreement with Juvenescence does not assure that we will be able to borrow more than $500,000 and all of the loans under the New Loan Agreement will become collateralized by our assets and those of most of our subsidiaries if we make more than two draws of funds under the New Loan Agreement.

Under the terms of the New Loan Agreement with Juvenescence described in Note 9 to our consolidated financial statements included elsewhere in this Report, we will initially borrow $500,000 as an unsecured loan. Although the New Loan Agreement provides that Juvenescence may lend us up to $8 million, loans in excess of the initial $500,000 are subject to Juvenescence's discretion and Juvenescence will require that we implement a plan prior to April 30, 2020 to reduce our spending on employee salaries and consulting fees and pay no bonuses for 2019 in order to borrow more than the initial $500,000, meaning that there is no assurance that we will be able to borrow more than the initial $500,000. Further, if we make more than two draws of funds (generally borrowing more than $1,000,000 through the two initial draws) under the New Loan Agreement, all of our borrowings under the New Loan Agreement will become collateralized by all of our assets and those of our subsidiaries ReCyte Therapeutics and Reverse Bio (the "Guarantor Subsidiaries") under the terms of a Security and Pledge Agreement. This means that if an Event of Default, as defined in the New Loan Agreement, or other default under the Security and Pledge Agreement, were to occur after we make more than two draws of funds, Juvenescence could foreclose on its security interest and sell our assets and those of our Guarantor Subsidiaries to satisfy the unpaid principal balance of those loans plus costs incurred in connection with the Event of Default and the foreclosure and sale of the assets. As a result, we and our Guarantor Subsidiaries could lose some or all of our respective assets, leaving few if any assets available for the operation of our business or the business of our subsidiaries, or for sale for the benefit of our stockholders through a winding up of our affairs and liquidation of our assets.

If we borrow more than $500,000 under the New Loan Agreement with Juvenescence we will have to substantially restructure our plans and operations.

Although Juvenescence will retain discretion whether to fund all but the initial $500,000 draw request, as a condition to borrowing more than $500,000 under the New Loan Agreement AgeX must implement a plan during April 2020 to reduce spending on employee salaries and consulting fees (the "Restructuring Plan") to a degree that will result in large staff reductions which may be coupled with salary reductions for certain employees who agree to a pay reduction in order to remain employed. Management believes that implementing such a Restructuring Plan would likely require the elimination of certain management and administrative personnel and most of its research personnel, which in turn would mean that AgeX would cease development of some or all of its product candidates or technologies unless research and development work could be contracted out to third party service providers within the newly imposed budgetary constraints. Accordingly, borrowing more than $500,000 under the New Loan Agreement could have a significant impact on AgeX's pursuit of the development of the product candidates and technologies described under "Business" in this Report.

The terms of our New Loan Agreement with Juvenescence could make it more difficult for us to raise additional capital from other sources.

The New Loan Agreement with Juvenescence, among other matters: (a) requires AgeX and the Guarantor Subsidiaries to grant Juvenescence a security interest and lien on substantially all of our respective assets if AgeX makes more than two draws of funds (generally meaning if AgeX borrows more than $1,000,000); (b) requires AgeX to issue additional common stock purchase warrants to Juvenescence; (c) requires AgeX to implement a Restructuring Plan during April 2020 to reduce spending on employee salaries and consulting fees in order to make a second draw of funds (although Juvenescence will retain discretion whether to fund the draw request); and (d) prohibits AgeX and the Guarantor Subsidiaries from borrowing funds from other lenders or engaging in certain secured transactions without the consent of Juvenescence, unless we repay all amounts owed to Juvenescence under the New Loan Agreement and the $2 million we borrowed under the August 2019 Loan Facility Agreement discussed in Note 4 to our consolidated financial statements. The requirement that we implement a plan during April 2020 to reduce our spending on employee salaries and consulting fees would necessitate staffing reductions that would require a substantial curtailment of our operations, including our research and development efforts. Accordingly, the terms of the New Loan Agreement could require AgeX to make significant changes to its operations and research and development plans, which could make AgeX less attractive to new equity investors and could impair our

ability to finance our operations or the operations of our Guarantor Subsidiaries from sources other than Juvenescence.

Raising additional capital may cause dilution to our stockholders, restrict our operations or require us to relinquish rights to our technologies or product candidates.

Until such time, if ever, as we can generate substantial revenue, we may finance our cash needs through a combination of equity offerings, debt financings, strategic alliances and licensing arrangements. We do not currently have any committed external source of funds other than the right to borrow $500,000 under the New Loan Agreement. We will need to seek additional capital regardless of market conditions and the terms of any financings that may be available to us.

To the extent that we raise additional capital through the sale of equity or convertible debt securities, or debt coupled with warrants or other equity securities, 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. We will need to issue shares of common stock and common stock purchase warrants to Juvenescence in connection with borrowings under the New Loan Agreement, which to the extent issued will dilute the interests of our other stockholders. 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 or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

We are a discovery-stage development company and have incurred operating losses since our inception. We anticipate that we will incur continued losses for the foreseeable future, and we do not know if we will ever attain profitability.

We are a discovery-stage therapeutics company with a limited operating history. Since our inception in August 2017, we have incurred operating losses and negative cash flows and we expect to continue to incur losses and negative cash flow in the future. Our operating losses were $12.6 million and $11.2 million for the years ended December 31, 2019 and 2018, respectively, and we had an accumulated deficit of approximately $86.2 million as of December 31, 2019. We have devoted most of our financial resources to research and development, including our preclinical development activities.

We expect to continue to incur significant additional operating losses for the foreseeable future if we seek to advance product candidates through preclinical and clinical development conduct clinical trials, seek regulatory approval and, if we receive FDA approval, commercialize our product candidates. Furthermore, the costs of advancing product candidates into each succeeding clinical phase tend to increase substantially over time. The total costs to advance any of our product candidates to marketing approval in even a single jurisdiction would be substantial. Because of the numerous risks and uncertainties associated with development of cell-based and drug-based therapeutics, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to begin generating revenue from the commercialization of products (other than through our LifeMap Sciences subsidiary) or achieve or maintain profitability.

Our ability to successfully develop, commercialize and license our products and generate product revenue is subject to substantial additional risks and uncertainties. Each of our programs and product candidates will require additional preclinical and clinical development, potential regulatory approval in multiple jurisdictions, securing manufacturing supply, capacity and expertise, building of a commercial organization, substantial investment and significant marketing efforts before we generate any operating income from product sales. As a result, we expect to continue to incur net losses and negative cash flows for the foreseeable future. These net losses and negative cash flows have had, and will continue to have, an adverse effect on our stockholders' equity and working capital. The amount of our future net losses will depend, in part, on the rate of future growth of our expenses, our ability raise the capital needed to continue our operations, and our ability to generate revenues. If we are unable to develop and commercialize one or more of our product candidates either alone or with collaborators, or if revenues from any product candidate that receives marketing approval are insufficient, we will not achieve profitability. Even if we do achieve profitability, we may not be able to sustain or increase profitability. If we are unable to achieve and then maintain profitability, the value of our equity securities will be materially and adversely affected.

We have not tested any of our product candidates in clinical trials. Success in early development and preclinical studies or clinical trials may not be indicative of results obtained in later preclinical studies and clinical trials.

Our product candidates have never been evaluated in human clinical trials, and we may experience unexpected or adverse results in the future. We will be required to demonstrate through adequate and well-controlled clinical trials that our product candidates are safe and effective, with a favorable benefit-risk profile, for use in their target indications before we can seek regulatory approvals for their commercial sale. Any positive results that have been observed for product candidates similar to ours in preclinical animal models may not be predictive of future clinical trials in humans. Our product candidates may also fail to show the desired safety and efficacy in later stages of clinical development even if they successfully advance through initial clinical trials. Further, some or all of our cell-based therapies under development may require the genetic modification of the pluripotent master cell banks such that the resulting cells can escape immune rejection by the intended patient. There is no certainty that said genetic modification will provide a long-term solution to transplant rejection, or that said modified cells will not cause unanticipated health risks to the patient that could delay or even halt the development of the products.

Many companies in the biotechnology industry have suffered significant setbacks in late-stage clinical trials after achieving positive results in early-stage development and there is a high failure rate for product candidates proceeding through clinical trials. Data obtained from preclinical and clinical activities are subject to varying interpretations, which may delay, limit or prevent regulatory approval. Even if we demonstrate statistical significance, regulatory agencies may not accept the use of the historical control. Regulatory delays or rejections may be encountered as a result of many factors, including changes in regulatory policy during the period of product development. We cannot be certain that we will not face similar setbacks.

We do not currently have any products on the market and have not yet generated any substantial revenues from operations.

We were established and began operations in 2017. Our operations to date have been limited to the preliminary financing and staffing of our company, developing our technology and identifying and developing our product candidates. We have not yet demonstrated an ability to successfully commence or complete any clinical trials, including large-scale, pivotal clinical trials, obtain marketing approval, manufacture a research or commercial scale product, or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization. Typically, it takes about six to ten years to develop a new drug from the time it enters Phase 1 clinical trials to when it is approved for treating patients, but in many cases it may take longer. Consequently, predictions about our future success or viability may not be as accurate as they could be if we had a longer operating history or a history of successfully developing and commercializing genetic medicine products. In addition, as a business with a limited operating history, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. We will eventually need to transition from a company with a research focus to a company capable of supporting commercial activities. We may not be successful in such a transition.

We need to successfully develop and market or license therapeutic products or technologies in order to earn revenues in sufficient amounts to meet our operating expenses. Without significant product sales or licensing fee revenues, we will not be able to operate at a profit, and we will not be able to cover our operating expenses without raising additional capital. Should we be able to successfully develop and market any therapeutic products we may not be able to receive reimbursement for them from payers, such as health insurance companies, health maintenance organizations and Medicare, or any reimbursement that we receive may be lower than we anticipate.

Our choice of product candidates and our development plans for our product candidates are subject to change based on a variety of factors, and if we abandon development of a product candidate we may not be able to develop or acquire a replacement product candidate.

We may determine to abandon the development of one or more of our product candidates, or we may change the prioritization of the development of certain product candidates, or we may select or acquire and prioritize the development of new product candidates. Our choice and prioritization of product candidates for development will be influenced by a variety of factors, including but not limited to:

- the amount of capital that we will have for our development programs and our projected costs for those programs;
- competitors may develop alternatives that render our potential product candidates obsolete or less attractive;
- potential product candidates we develop may nevertheless be covered by third parties' patents or other exclusive rights;
- potential product candidates may, on further study, be shown to have harmful side effects, toxicities or other characteristics that indicate that they are unlikely to be products that will receive marketing approval and achieve market acceptance;
- potential product candidates may not be effective in treating their targeted diseases;
- our analysis of market demand and market prices for the products we plan to develop could lead us to conclude that market conditions are not favorable for receiving an adequate return on our investment in product development and commercialization;
- a potential product candidate may not be capable of being produced in commercial quantities at an acceptable cost, or at all; or
- the regulatory pathway for a potential product candidate is too complex and difficult to navigate successfully or economically.

We may expend our limited resources to pursue one or more particular product candidates or indications and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus on research 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 that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to timely capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and 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.

If we do not implement the Restructuring Plan, we will need to expand our organization if we are able to raise sufficient capital to do so, and we may experience difficulties in managing this growth, which could disrupt our operations.

As of December 31, 2019, we had 21 employees. If we determine not to implement the Restructuring Plan and are able to obtain sufficient capital to expand our organization, we may have difficulty identifying, hiring and integrating new personnel. Future growth would impose significant additional responsibilities on our management, including the need to identify, recruit, maintain, motivate and integrate additional employees, consultants and contractors. Also, our management may need to divert a disproportionate amount of its attention away from our day-to-day activities and devote a substantial amount of time to managing these growth activities. We may not be able to effectively manage the expansion of our operations, which may result in weaknesses in our infrastructure, give rise to operational mistakes, loss of business opportunities, loss of employees and reduced productivity among remaining employees. Any growth of administrative resources could require significant capital expenditures and may divert financial resources from other projects, such as the development of product candidates. If our management is unable to effectively manage our growth, our expenses may increase more than expected, our ability to generate and/or grow revenues could be reduced, and we may not be able to implement our business strategy. Our future financial performance and our ability to commercialize our product candidates and compete effectively will depend, in part, on our ability to effectively manage any future growth.

Many of the biotechnology companies that we compete against for qualified personnel and consultants have greater financial and other resources, different risk profiles and a longer history in the industry than we do. If we are unable to continue to attract and retain high-quality personnel and consultants, the rate and success at which we can discover and develop product candidates and operate our business will be limited.

The commercial success of any of our current or future product candidates will depend upon the degree of market acceptance by physicians, patients, third-party payors, and others in the medical community.

Even with approvals from the FDA and comparable foreign regulatory authorities, the commercial success of our products will depend in part on the health care providers, patients, and third-party payors accepting our product candidates as medically useful, cost-effective, and safe. Any product that we bring to the market may not gain market acceptance by physicians, patients, third-party payors and other health care providers. The clinical development, commercialization, and marketing of cell therapies are at an early-stage, substantially research-oriented, and financially speculative. To date, very few companies have been successful in their efforts to develop and commercialize cell therapies. In general, cell therapies may be susceptible to various risks, including undesirable and unintended side effects, unintended immune system responses, inadequate therapeutic efficacy, potentially prohibitive costs or other characteristics that may prevent or limit their approval or commercial use. Furthermore, the number of people who may use cell- or tissue-based therapies is difficult to forecast with accuracy. Our future success is dependent on the establishment of a large global market for cell therapies and our ability to capture a share of this market with our product candidates.

Even if we successfully develop and obtain regulatory approval for our product candidates, the market may not understand or accept them. Our product candidates represent novel treatments and are expected to compete with a number of more conventional products and therapies manufactured and marketed by others, including major pharmaceutical and biotechnology companies. The degree of market acceptance of any of our products will depend on a number of factors, including without limitation:

- the efficacy of the product as demonstrated in clinical studies and potential advantages over competing treatments;
- the prevalence and severity of the disease and any side effects;
- the clinical indications for which approval is granted, including any limitations or warnings contained in a product's approved labeling;
- the convenience and ease of administration;
- the cost of treatment, particular as additive to existing treatments;
- the willingness of the patients and physicians to accept and use these therapies and the perception of efficacy and safety of our approved products by such parties;
- the marketing, sales and distribution support for the products;
- the publicity and ethical, social and legal concerns regarding the use of embryonic stem cells for our products or competing products and treatments; and
- government regulations restricting or prohibiting our research or manufacturing processes for stem cells due to ethical, social and legal concerns regarding their use in medical research and treatment; and
- the pricing and availability of third-party insurance coverage and reimbursement.

Even if a product displays a favorable efficacy and safety profile upon approval, market acceptance of the product will initially remain uncertain. Efforts to educate the medical community and third-party payors on the benefits of the products may require significant investment and resources and may never be successful. If our products fail to achieve an adequate level of acceptance by physicians, patients, third-party payors, and other health care providers, we will not be able to generate sufficient revenue to become or remain profitable.

If the market opportunities for our product candidates are smaller than we believe they are, we may not meet our revenue expectations and, even assuming approval of a product candidate, our business may suffer.

Our projections of the number of potential users of our product candidates in the markets we are attempting to address are based on our beliefs and estimates and include several key assumptions based on our industry knowledge, industry publications, third-party research reports and other surveys. You should bear in mind the following:

- Our estimates have been derived from a variety of sources, including publications and scientific literature or market research estimating the total number of patients and currently approved or used therapies, as well as certain assumptions regarding the potential size of the market assuming broad regulatory approval or potential usage by physicians beyond the approved label, any of which may prove to be incorrect.
- The scope of approval and potential use may be significantly narrower, and the number of patients may turn out to be lower than expected.
- Competitive products or approaches may be approved or come into use by medical providers and the potentially addressable patient population for each of our product candidates may be limited or may not be amenable to treatment with our product candidates, and new patients may become increasingly difficult to identify or gain access to, any which could adversely affect our results of operations and our business.

If the actual market for any of our product candidates is smaller than we expect, our revenue may be limited and it may be more difficult for us to achieve or maintain profitability.

We will face risks related to the manufacture of medical products for any product candidates that we develop.

The manufacture of medical products, and in particular biologics, is complex and requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls, none of which we presently have. Unless we are able to raise the capital required to construct our own manufacturing facilities and are able to develop the expertise to manage and operate a manufacturing facility of our own, we may need to rely on third-party manufacturers to manufacture any products that we develop. There is no assurance that we will be able to identify manufacturers on acceptable terms or at all. Regardless of whether we do our own manufacturing or rely on third parties to manufacture products for us, we will face all risks related to the manufacture of therapeutic products for use in medicine including the following risks:

- We or any third-party manufacturers might be unable to timely formulate and manufacture our products or produce the quantity and quality required to meet our clinical and commercial needs, if any.

- We or any third-party manufacturers may not be able to execute our manufacturing procedures appropriately.

- Any third-party manufacturers we engage may not perform as agreed or may not remain in the contract manufacturing business for the time required to supply our clinical trials or to successfully produce, store and distribute our products on a commercial scale.

- We or any third-party manufacturers will be subject to ongoing periodic unannounced inspection by the United States Food and Drug Administration, or FDA, and corresponding state agencies to ensure strict compliance with cGMP and other government regulations and corresponding foreign standards. We will not have control over third-party manufacturers' compliance with applicable regulations and standards.

- We may not own, or may have to share, the intellectual property rights to any improvements made by our third-party manufacturers in the manufacturing process for our product candidates.

- Third-party manufacturers could breach or terminate their agreements with us.

- We or third-party manufacturers may experience manufacturing difficulties due to resource constraints or as a result of labor disputes or unstable political environments.

In addition, we may rely on third parties to perform release testing on our product candidates prior to delivery to patients. If these tests are not appropriately conducted and test data are not reliable, patients could be put at risk of serious harm which could result in product liability suits.

If we or any third-party manufacturers that we may engage were to encounter any of these difficulties, our ability to provide our product candidates to patients in clinical trials or to the medical marketplace would be jeopardized. Any delay or interruption in the supply of clinical trial supplies could delay the completion of clinical trials, increase the costs associated with maintaining clinical trial programs and, depending upon the period of delay, could require us to either commence new clinical trials at additional expense or terminate clinical trials completely.

The regulatory authorities also may, at any time following approval of a product for sale, audit our manufacturing facilities or those of our third-party contractors. If any such inspection or audit identifies a failure to comply with applicable regulations or if a violation of our product specifications or applicable regulations occurs independent of such an inspection or audit, we or the relevant regulatory authority may require remedial measures that may be costly and/or time-consuming for us or a third party to implement and that may include the temporary or permanent suspension of a clinical study or commercial sales or the temporary or permanent closure of a facility. Any such remedial measures imposed upon us or third parties with whom we contract could materially harm our business.

Additionally, if supply from one approved manufacturer is interrupted, there could be a significant disruption in commercial supply. The regulatory agencies may also require additional studies if a new manufacturer is relied upon for commercial production. Switching manufacturers may involve substantial costs and is likely to result in a delay in our desired clinical and commercial timelines.

Further, our product candidates are manufactured by starting with established master cell banks of human embryonic cells and other cells that are cryopreserved. We will be required to expand the numbers of the pluripotent stem cell master cell banks for future use, as well as produce working cell banks from which the product will be manufactured for clinical trials, produce the relevant product under cGMP conditions, expand the number of relevant cells and cryopreserve them under cGMP conditions. We may not be able to expand the numbers of the pluripotent stem cell master cell banks to provide sufficient cells for clinical trial or for commercial scale production. We may not be able to manufacture product that meets release criteria due to sterility, identity or potency issues. We may not have access or be able to make the reagents necessary to manufacture the cells and we may not have access to an adequate supply channels to transport and distribute the products. There are also risks that the cells may be destroyed by interruption in their cryopreservation by means of natural disasters such as earthquakes, power outages, or other unexpected events, or the cells may be determined to be unacceptable as a source of human cellular therapies for reasons we cannot envision. We cannot assure you that any stability or other issues relating to the manufacture of any of our product candidates or products will not occur in the future. If any of our master cell banks are lost or destroyed, including due to systems failure in the cryopreservation processes, our planned clinical trials would be severely delayed, and we would incur significant costs associated with obtaining new supply of cell banks. Accordingly, failures or difficulties faced at any level of our supply chain could adversely affect our business and delay or impede the development and commercialization of any of our product candidates or products and could have an adverse effect on our business, prospects, financial condition and results of operations.

Any therapies that we may develop may compete with other product candidates and products for access to manufacturing facilities. There are a limited number of manufacturers that operate under cGMP regulations and that might be capable of manufacturing cell-based products for us. Any performance failure on the part of our existing or future manufacturers could delay clinical development or marketing approval.

Each of these risks could delay our clinical trials, any approval of our product candidates by the FDA, or the commercialization of our product candidates, and could result in higher costs or deprive us of potential product revenue.

Any cell-based products that receive regulatory approval may be difficult and expensive to manufacture on a commercial scale.

Pluripotent stem cell and progenitor cell derived therapeutic cells have only been produced on a small scale and not in quantities and at levels of purity and viability that will be needed for wide scale commercialization. If we are successful in developing products that consist of cells or compounds derived from pluripotent stem cells or progenitor cells, we will need to develop processes and technology for the commercial production of those products. Pluripotent stem cell or progenitor cell based products are likely to be more expensive to manufacture on a commercial scale than most other drugs on the market today. The high cost of manufacturing a product will require that we charge our customers a high price for the product in order to cover our costs and earn a profit. If the price of our products is too high, hospitals and physicians may be reluctant to purchase our products and we may not be able to sell our products in sufficient volumes to recover our costs or to earn a profit.

If we fail to meet our obligations under license agreements, we may lose our rights to key technologies on which our business depends.

Our business will depend on several critical technologies that we have licensed or sublicensed from Lineage or certain Lineage subsidiaries. The license and sublicense agreements impose obligations on us, including payment obligations and obligations to pursue development and commercialization of products and technologies under the licensed patents or technology. If the licensor or sublicensor believes that we have failed to meet our obligations under a license or sublicense agreement, they could seek to limit or terminate our license rights, which could lead to costly and time-consuming litigation and, potentially, our loss of the licensed rights. In addition, certain of our licensing counterparties may terminate our license rights without cause, including Yeda in connection with the relational databases in-licensed by LifeMap Sciences. During the period of any such litigation our ability to carry out the development and commercialization of potential new products or technologies, and our ability to raise any capital that we might then need, could be significantly and negatively affected. If our license rights were restricted or ultimately lost, we would not be able to continue to use the licensed or sublicensed technology in our business.

Our future success depends on our ability to retain our key personnel and to attract, retain and motivate qualified personnel.

Our industry has experienced a high rate of turnover of management personnel in recent years. We are highly dependent on the development, regulatory, commercialization and business development expertise of Michael West, Ph.D., our Chief Executive Officer, as well as the other principal members of our management, scientific and clinical teams. Although we have employment agreements with our executive officers, these agreements do not prevent them from terminating their employment with us at any time. In addition, because we will rely on Juvenescence to provide the services of certain administrative and management personnel, we will not have the benefit of the full time and effort of those Juvenescence employees in the management and development of our business. We could lose the services of members of management team through the implementation of the Restructuring Plan.

If we lose one or more of our executive officers or key employees, our ability to implement our business strategy successfully could be seriously harmed. Furthermore, replacing executive officers and key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to develop, gain regulatory approval of and commercialize product candidates successfully. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate these additional key personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may be engaged by entities other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us. If we are unable to continue to attract and retain high quality personnel, our ability to develop and commercialize product candidates will be limited.

Our business and operations could suffer in the event of system failures.

Despite the implementation of security measures, our internal computer systems and those of our contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters including earthquakes and tsunamis, terrorism, war, and telecommunication and electrical failures. Some of our data related to the development of our product candidates resides on Lineage's computer servers and will be subject to the same risks described above. Further, while we are working to transfer our data from Lineage's servers to our own servers, there is a risk that data could be lost or corrupted while in the process of being transferred, or could otherwise not be transferred to us. A loss of or damage to our data, a disruption in access to our data, or inappropriate disclosure of confidential or proprietary information, could disrupt our operations, delay or otherwise adversely affect the development of our product candidates, significantly increase our costs, or result in delays in any future regulatory filings we may make.

In addition, our product candidates are manufactured by starting with cells that are stored in a cryopreserved master cell bank. While we believe we have adequate backup should any cell bank be lost in a catastrophic event, it is possible that we or our third-party suppliers and manufacturers could lose multiple cell banks and have our manufacturing severely impacted by the need to replace the cell banks. See "—We will face risks related to the manufacture of medical products for any product candidates that we develop." We cannot assure you that any stability or other issues relating to the manufacture of any of our product candidates or products will not occur in the future. Any delay or interruption in the supply of clinical trial supplies could delay the completion of planned clinical trials, increase the costs associated with maintaining clinical trial programs and, depending upon the period of delay, require us to commence new clinical trials at additional expense or terminate clinical trials completely. Any adverse developments affecting clinical or commercial manufacturing of our product candidates or products may result in shipment delays, inventory shortages, lot failures, product withdrawals or recalls or other interruptions in the supply of our product candidates or products. Accordingly, failures or difficulties faced at any level of our supply chain could adversely affect our business and delay or impede the development and commercialization of any of our product candidates or products and could have an adverse effect on our business, prospects, financial condition and results of operations.

Security breaches and other disruptions could compromise our information and expose us to liability, and could cause our business and reputation to suffer.

In the ordinary course of business, we collect and store sensitive data, including intellectual property, our proprietary business information and that of the licensors and licensees of the patents and other intellectual property we use, and personally identifiable information of employees and consultants. The secure processing, maintenance, and transmission of this information is critical to our operations and business strategy. Despite our security measures, our information technology and infrastructure may be vulnerable to attacks by hackers or breached due to employee error, malfeasance, or other disruptions. Any such breach could compromise our networks and the information stored there could be accessed, publicly disclosed, lost, or stolen. Any such access, disclosure, theft, or other loss of information could result in legal claims or proceedings or liability under laws that protect the privacy of personal information, and could disrupt our operations and damage our reputation. Even if we do not incur an interruption of or our operations, fines, penalties, or financial liability to third parties from a security breach, we could suffer a loss of confidence in our services, which could adversely affect our business and competitive position.

Failure of our internal control over financial reporting could harm our business and financial results.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting for external purposes in accordance with accounting principles generally accepted in the U.S. Internal control over financial reporting includes maintaining records that in reasonable detail accurately and fairly reflect our transactions; providing reasonable assurance that transactions are recorded as necessary for preparation of our financial statements; providing reasonable assurance that receipts and expenditures of our assets are made in accordance with management authorization; and providing reasonable assurance that unauthorized acquisition, use, or disposition of our assets that could have a material effect on the financial statements would be prevented or detected on a timely basis. Because of its inherent limitations, internal control over financial reporting is not intended to provide absolute assurance that a misstatement of our financial statements would be prevented or detected. Because we are an emerging growth company and a smaller reporting issuer, we are exempt from the requirement of having our internal controls over financial reporting audited by our independent registered public accountants, which means that material weaknesses or significant deficiencies in our internal controls that might be detected by an audit may not be detected and remedied. If we are successful in developing new medical products and technologies, the commercialization of those products and technologies will place significant additional pressure on our system of internal control over financial reporting. Any failure to maintain an effective system of internal control over financial reporting could limit our ability to report our financial results accurately and timely or to detect and prevent fraud. See "—Risks Pertaining to Our Common Stock—Our accounting and other management systems and resources may not be adequately prepared to meet the financial reporting and other requirements to which we will be subject, and failure to achieve and maintain effective internal controls could have a material adverse effect on our business and the price of our common stock."

The outbreak of the corona virus COVID 19 could adversely affect our operations.

The outbreak of the corona virus COVID 19 could disrupt our operations due to absenteeism by ill employees or employees who elect not to come to work due to the illness affecting other employees in our office or laboratory facilities or due to quarantines. COVID-19 illness could also impact members of our Board of Directors resulting in absenteeism from meetings of the directors or committees of directors, and making it more difficult to convene the quorums of the full Board of Directors or its committees needed to conduct meetings for the management of our affairs.

Supplies of chemical reagents and other supplies used in our laboratory could be disrupted if the manufacturers experience absenteeism due to illness of their employees or due to quarantines. Absenteeism due to corona virus illness could also impact companies that the manufacturers use to ship reagents or other supplies to us. Employee absenteeism or supply disruptions could impair our ability to conduct our day to day business. Similar disruptions could be experienced by third parties performing research and development work cooperatively with us or for us under contracts, which would also adversely affect our ability to make progress in our research and development programs. We cannot presently predict the extent to which the virus may impact our operations.

The anticipated economic consequences of the COVID-19 pandemic have adversely impacted financial markets, resulting in high share price volatility, reduced market liquidity, and substantial declines in the market prices of the shares of most publicly traded companies, including shares of AgeX common stock. Volatile or declining markets for equities could adversely affect our ability to raise capital when needed through the sale of shares of common stock or other equity securities. While these market conditions persist when we need to raise capital, and if we are able to sell shares of our common stock under then prevailing market conditions, we might have to accept lower prices for our shares and issue a larger number of shares than might have been the case under better market conditions, resulting in significant dilution of the interests of our shareholders.

Recent changes in U.S. federal income tax law may have an adverse effect on our cash flows, results of operations or financial condition.

On December 22, 2017, the United States enacted major federal tax reform legislation, Public Law No. 115-97, commonly referred to as the 2017 Tax Cuts and Jobs Act ("2017 Tax Act"), which enacted a broad range of changes to the Internal Revenue Code. Changes to taxes on corporations impacted by the 2017 Tax Act include, but not limited to, changing the U.S. federal tax rate on corporations to a 21 percent flat tax rate, eliminating the corporate alternative minimum tax ("AMT"), imposing additional limitations on the deductibility of interest and net operating losses, allowing any net operating loss ("NOLs") generated in tax years ending after December 31, 2017 to be carried forward indefinitely and generally repealing NOL carrybacks, reducing the maximum deduction for NOL carryforwards arising in tax years beginning after 2017 to a percentage of the taxpayer's taxable income, and allowing for additional expensing of certain capital expenditures. The 2017 Tax Act also puts into effect a number of changes impacting operations outside of the United States including, but not limited to, the imposition of a one-time tax "deemed repatriation" on accumulated offshore earnings not previously subject to U.S. tax, and shifts the U.S taxation of multinational corporations from a worldwide system of taxation to a territorial system. Notwithstanding the reduction in the corporate income tax rate, the overall impact of the new federal tax law is uncertain and our business and financial condition could be adversely affected. In addition, it is uncertain if and to what extent various states will conform to the newly enacted federal tax law.

We are subject to laws and regulations governing corruption, which will require us to develop, maintain, and implement costly compliance programs.

We must comply with a wide range of laws and regulations to prevent corruption, bribery, and other unethical business practices, including the Foreign Corrupt Practices Act or FCPA, anti-bribery and anti-corruption laws in other countries, particularly China where our subsidiary LifeMap Sciences does business, including business with hospitals. The creation and implementation of international business practices compliance programs is costly and such programs are difficult to enforce, particularly where reliance on third parties is required.

Anti-bribery laws prohibit us, our employees, and some of our agents or representatives from offering or providing any personal benefit to covered government officials to influence their performance of their duties or induce them to serve interests other than the missions of the public organizations in which they serve. Certain commercial bribery rules also prohibit offering or providing any personal benefit to employees and representatives of commercial companies to influence their performance of their duties or induce them to serve interests other than their employers. The FCPA also obligates companies whose securities are listed in the U.S. to comply with certain accounting provisions requiring us to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, and devise and maintain an adequate system of internal accounting controls for international operations. The anti-bribery provisions of the FCPA are enforced primarily by the United States Department of Justice. The SEC is involved with enforcement of the books and records provisions of the FCPA.

Compliance with these anti-bribery laws is expensive and difficult, particularly in countries in which corruption is a recognized problem. In addition, the anti-bribery laws present particular challenges in the medical industry because in many countries including China, hospitals are state-owned or operated by the government, and doctors and other hospital employees are considered foreign government officials. Furthermore, in certain countries (China in particular), hospitals and clinics are permitted to sell pharmaceuticals to their patients and are primary or significant distributors of pharmaceuticals. Certain payments to hospitals in connection with clinical studies, procurement of pharmaceuticals and other work have been deemed to be improper payments to government officials that have led to vigorous anti-bribery law enforcement actions and heavy fines in multiple jurisdictions, particularly in the U.S. and China.

It is not always possible to identify and deter violations, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations.

In the medical industry, corrupt practices include, among others, acceptance of kickbacks, bribes or other illegal gains or benefits by the hospitals and medical practitioners from manufacturers of pharmaceutical or other products, distributors or their third party agents in connection with the prescription of certain pharmaceuticals or sale of products. If our employees, affiliates, distributors or third party marketing firms violate these laws or otherwise engage in illegal practices with respect to their sales or marketing of our products or other activities involving our products, we could be required to pay damages or heavy fines by multiple jurisdictions where we operate, which could materially and adversely affect our financial condition and results of operations. The Chinese government has also sponsored anti-corruption campaigns from time to time, which could have a chilling effect on any future marketing efforts by us to new hospital customers. There have been recent occurrences in which certain hospitals have denied access to sales representatives from pharmaceutical companies because the hospitals wanted to avoid the perception of corruption. If this attitude becomes widespread among our potential customers, our ability to promote our products to hospitals may be adversely affected.

As we and our subsidiaries expand operations in China and other jurisdictions internationally, we will need to increase the scope of our compliance programs to address the risks relating to the potential for violations of the FCPA and other anti-bribery and anti-corruption laws. Our compliance programs will need to include policies addressing not only the FCPA, but also the provisions of a variety of anti-bribery and anti-corruption laws in multiple foreign jurisdictions, including China, provisions relating to books and records that apply to us as a public company, and include effective training for our personnel throughout our organization. The creation and implementation of anti-corruption compliance programs is costly and such programs are difficult to enforce, particularly where reliance on third parties is required. Violation of the FCPA and other anti-corruption laws can result in significant administrative and criminal penalties for us and our employees, including substantial fines, suspension or debarment from government contracting, prison sentences, or even the death penalty in extremely serious cases in certain countries. The SEC also may suspend or bar us from trading securities on U.S. exchanges for violation of the FCPA's accounting provisions. Even if we are not ultimately punished by government authorities, the costs of investigation and review, distraction of our personnel, legal defense costs, and harm to our reputation could be substantial and could limit our profitability or our ability to develop or commercialize our product candidates. In addition, if any of our competitors are not subject to the FCPA, they may engage in practices that will lead to their receipt of preferential treatment from foreign hospitals and enable them to secure business from foreign hospitals in ways that are unavailable to us.

Risks Related to Our Industry

We face significant competition in an environment of rapid technological change and the possibility that our competitors may achieve regulatory approval before us or develop therapies that are more advanced or effective than ours, which may harm our business and financial condition, and our ability to successfully market or commercialize our product candidates.

The biotechnology and pharmaceutical industries are characterized by rapidly changing technologies, competition and a strong emphasis on intellectual property. We may face competition from other companies focused on therapeutics for age-related disease, which is a highly competitive environment. There are numerous biotechnology companies developing therapeutics for human aging, with each company often focusing on a specific molecular pathway within cells. For example, ResTORbio, Inc. is developing modulators of the mechanistic target of rapamycin (mTOR) pathway to treat immunological and cardiovascular disorders. Calico Life Sciences LLC is a Google-founded research and development company aimed at identifying molecular pathways that control animal lifespan and translating these insights into novel therapeutics designed to increase human healthspan. Unity Biotechnology, Inc. focuses on cellular senescence, in particular, the use of agents that can target senescent cells for selective ablation (senolysis). Unity's stated targeted age-related diseases include osteoarthritis as well as other ophthalmological and pulmonary diseases. Our therapeutic products in development are likely to face competition from a large number of companies and technological strategies including therapeutics intended to address our lead indications. See "Business – Competition."

We may also face competition from large and specialty pharmaceutical and biotechnology companies, academic research institutions, government agencies and public and private research institutions. Many of our current or potential competitors, either alone or with their collaboration partners, have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals, and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical, biotechnology, and gene therapy industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient, or are less expensive than any products that we may develop or that would render any products that we may develop obsolete or non-competitive. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. In particular, the Ministry of Labor Health and Welfare in Japan may grant SAKIGAKE designation to a competing product candidate, which is designed to provide for faster review and approval for any such product candidate as compared to the conventional process. If any competing product candidate receives SAKIGAKE designation in Japan, it may be commercialized more quickly in Japan than any of our product candidates. Additionally, technologies developed by our competitors may render our potential product candidates uneconomic or obsolete, and we may not be successful in marketing any product candidates we may develop against competitors.

Any product candidates for which we intend to seek approval as biologic products may face competition sooner than anticipated.

The Patient Protection and Affordable Care Act, signed into law on March 23, 2010 ("ACA"), includes a subtitle called the Biologics Price Competition and Innovation Act of 2009, or BPCIA, which created an abbreviated approval pathway for biological products that are biosimilar to or interchangeable with an FDA-licensed reference biological product. Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until four years following the date that the reference product was first licensed by the FDA. In addition, the approval of a biosimilar product may not be made effective by the FDA until 12 years from the date on which the reference product was first licensed. During this 12-year period of exclusivity, another company may still market a competing version of the reference product if the FDA approves a full BLA for the competing product containing the sponsor's own pre-clinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of their product. The law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact, implementation, and meaning are subject to uncertainty. While it is uncertain when such processes intended to implement BPCIA may be fully adopted by the FDA, any such processes could have a material adverse effect on the future commercial prospects for our biological products.

There is a risk that any of our product candidates approved as a biological product under a BLA would not qualify for the 12-year period of exclusivity or that this exclusivity could be shortened due to congressional action or otherwise, or that the FDA will not consider our product candidates to be reference products for competing products, potentially creating the opportunity for generic competition sooner than anticipated. Other aspects of the BPCIA, some of which may impact the BPCIA exclusivity provisions, have also been the subject of recent litigation. Moreover, the extent to which a biosimilar, once approved, will be substituted for any one of our reference products in a way that is similar to traditional generic substitution for non-biological products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing.

The regulatory approval processes of the FDA and comparable foreign authorities are lengthy, time consuming and inherently unpredictable, and if we are ultimately unable to obtain regulatory approval for our product candidates, our business will be substantially harmed.

The time required to obtain approval by the FDA and comparable foreign 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. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions. We have not obtained regulatory approval for any product candidate and it is possible that any other product candidates we may seek to develop in the future will ever obtain regulatory approval. Neither we nor any future collaborator is permitted to market any of our product candidates in the United States until we receive regulatory approval of a biologic license application, or BLA, from the FDA. It is possible that the FDA may refuse to accept for substantive review any BLAs that we submit for our product candidates or may conclude after review of our data that our application is insufficient to obtain marketing approval of our product candidates.

Prior to obtaining approval to commercialize a product candidate in the United States or abroad, we or our collaborators must demonstrate with substantial evidence from well-controlled clinical trials, and to the satisfaction of the FDA or foreign regulatory agencies, that such product candidates are safe and effective for their intended uses. Results from nonclinical studies and clinical trials can be interpreted in different ways. Even if we believe the nonclinical or clinical data for our product candidates are promising, such data may not be sufficient to support approval by the FDA and other regulatory authorities. The FDA may also require us to conduct additional preclinical studies or clinical trials for our product candidates either prior to or post-approval, or it may object to elements of our clinical development program. Depending on the extent of these or any other FDA-required studies, approval of any BLA or application that we submit may be delayed by several years or may require us to expend significantly more resources than we have available.

Any therapeutic products that we and our subsidiaries may develop cannot be sold until the FDA and corresponding foreign regulatory authorities approve the products for medical use. The need to obtain regulatory approval to market a new product means that:

- We will have to conduct expensive and time-consuming clinical trials of new products. The full cost of conducting and completing clinical trials necessary to obtain FDA and foreign regulatory approval of a new product cannot be presently determined but could exceed our financial resources.

- Clinical trials and the regulatory approval process for a pharmaceutical or cell-based product can take several years to complete. As a result, we will incur the expense and delay inherent in seeking FDA and foreign regulatory approval of new products, even if the results of clinical trials are favorable.

- Data obtained from preclinical and clinical studies is susceptible to varying interpretations and regulatory changes that could delay, limit, or prevent regulatory agency approvals.

- Because the therapeutic products we plan to develop with pluripotent stem cell technology or progenitor cell technology involve the application of new technologies and approaches to medicine, the FDA or foreign regulatory agencies may subject those products to additional or more stringent review than drugs or biologicals derived from other technologies.

- A product that is approved may be subject to restrictions on use.

- The FDA can recall or withdraw approval of a product, if it deems necessary.

- We will face similar regulatory issues in foreign countries.

Approval of our product candidates may be delayed or refused for many reasons, including the following:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;

- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that our product candidates are safe and effective for any of their proposed indications;

- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;

- we may be unable to demonstrate that our product candidates' clinical and other benefits outweigh their safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from preclinical programs or clinical trials;
- the data collected from clinical trials of our product candidates may not be sufficient to support the submission of a BLA or other comparable submission in foreign jurisdictions or to obtain regulatory approval in the United States or elsewhere;
- the facilities of the third-party manufacturers with which we contract may not be adequate to support approval of our product candidates (for example, regulatory approval of cell- and tissue-based products require high standards of quality control); and
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

Of the large number of potential products in development, only a small percentage successfully complete the FDA or foreign regulatory approval processes and are commercialized. The lengthy approval process as well as the unpredictability of future clinical trial results may result in our failing to obtain regulatory approval to market our product candidates, which would significantly harm our business, results of operations and prospects.

Ethical, social and legal concerns about research regarding stem cells, could result in regulations restricting or prohibiting the processes we may use. Federal and state agencies, congressional committees and foreign governments have expressed interest in further regulating biotechnology. More restrictive regulations or claims that our products are unsafe or pose a hazard could prevent us from commercializing any products. New government requirements may be established that could delay or prevent regulatory approval of our product candidates under development. It is impossible to predict whether legislative changes will be enacted, regulations, policies or guidance changed, or interpretations by agencies or courts changed, or what the impact of such changes, if any, may be.

Regulatory requirements governing gene and cell therapy products have changed frequently and may continue to change in the future. The FDA has established the Office of Tissues and Advanced Therapies within its Center for Biologics Evaluation and Research, or CBER, to consolidate the review of gene therapy and related products, and has established the Cellular, Tissue and Gene Therapies Advisory Committee to advise the CBER in its review. Gene therapy clinical trials conducted at institutions that receive funding for recombinant DNA research from the NIH, also are potentially subject to review by the NIH Office of Science Policy's Recombinant DNA Advisory Committee, or the RAC, in limited circumstances. Although the FDA decides whether individual gene therapy protocols may proceed, the RAC public review process, if undertaken, can delay the initiation of a clinical trial, even if the FDA has reviewed the trial design and details and authorized its initiation. Conversely, the FDA can put an investigational new drug application, or IND, on clinical hold even if the RAC has provided a favorable review or an exemption from in-depth, public review. If we were to engage an NIH-funded institution, to conduct a clinical trial, that institution's institutional biosafety committee, or IBC, as well as its institutional review board, or IRB, would need to review the proposed clinical trial to assess the safety of the trial and may determine that RAC review is needed. In addition, adverse developments in clinical trials of gene therapy products conducted by others may cause the FDA or other oversight bodies to change the requirements for approval of any of our product candidates. Similarly, foreign regulatory authorities may issue new guidelines concerning the development and marketing authorization for gene therapy medicinal products and require that we comply with these new guidelines.

Some of our future products may be viewed by the FDA as combination products and the review of combination products is often more complex and more time consuming than the review of other types of products.

Our future products may be regulated by the FDA as combination products. For a combination product, the FDA must determine which center or centers within the FDA will review the product candidate and under what legal authority the product candidate will be reviewed. The process of obtaining FDA marketing clearance or approval is lengthy, expensive, and uncertain, and we cannot be sure that any of our combination products, or any other products, will be cleared or approved in a timely fashion, or at all. In addition, the review of combination products is often more complex and more time consuming than the review of a product candidate under the jurisdiction of only one center within the FDA. We cannot be sure that the FDA will not select to have our combination products reviewed and regulated by only one FDA center and/or different legal authority, in which case the path to regulatory approval would be different and could be more lengthy and costly. If the FDA does not approve or clear our products in a timely fashion, or at all, our business and financial condition will be adversely affected.

If we encounter difficulties enrolling patients in our clinical trials, our clinical development activities could be delayed or otherwise adversely affected.

The timely completion of clinical trials in accordance with their protocols depends, among other things, on our ability to enroll a sufficient number of patients who remain in the study until its conclusion. We may encounter delays in enrolling, or be unable to enroll, a sufficient number of patients to complete any of our clinical trials, and even once enrolled we may be unable to retain a sufficient number of patients to complete any of our trials. The enrollment of patients depends on many factors, including:

- the patient eligibility criteria defined in the protocol;
- the size of the patient population required for analysis of the trial's primary endpoints;
- the proximity of patients to study sites;
- the design of the trial;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- clinicians' and patients' perceptions as to the potential advantages of the product candidate being studied in relation to other available therapies, including any new products that may be approved for the indications we are investigating;
- our ability to obtain and maintain patient consents; and
- the risk that patients enrolled in clinical trials will drop out of the trials before completion.

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. Since the number of qualified clinical investigators is limited, we expect to conduct some of our clinical trials at the same clinical trial sites that some of our competitors use, which will reduce the number of patients who are available for our clinical trials in such clinical trial site.

Delays or failures in planned patient enrollment or retention may result in increased costs, program delays or both, which could have a harmful effect on our ability to develop our product candidates or could render further development impossible.

Even if we obtain FDA approval for any of our product candidates in the United States, we may never obtain approval for or commercialize it in any other jurisdiction, which would limit our ability to realize its full market potential.

In order to market any products in any particular jurisdiction, we must establish and comply with numerous and varying regulatory requirements on a country-by-country basis regarding safety and efficacy. Approval by the FDA in the United States does not ensure approval by regulatory authorities in other countries or jurisdictions. However, the failure to obtain approval in one jurisdiction may negatively impact our ability to obtain approval elsewhere. In addition, clinical trials conducted in one country may not be accepted by regulatory authorities in other countries, and regulatory approval in one country does not guarantee regulatory approval in any other country.

Approval processes vary among countries and can involve additional product testing and validation and additional administrative review periods. Seeking foreign regulatory approval could result in difficulties and increased costs for us and require additional preclinical studies or clinical trials which could be costly and time consuming. Regulatory requirements can vary widely from country to country and could delay or prevent the introduction of our products in those countries. We do not have any product candidates approved for sale in any jurisdiction, including in international markets, and we do not have experience in obtaining regulatory approval in international markets. If we fail to comply with regulatory requirements in international markets or to obtain and maintain required approvals, or if regulatory approvals in international markets are delayed, our target market will be reduced and our ability to realize the full market potential of any product we develop will be unrealized.

Clinical studies are costly, time consuming and inherently risky, and we may fail to demonstrate safety and efficacy to the satisfaction of applicable regulatory authorities

Clinical development is expensive, time consuming and involves significant risk. We cannot guarantee that any clinical studies will be conducted as planned or completed on schedule, if at all. A failure of one or more clinical studies can occur at any stage of development. Events that may prevent successful or timely completion of clinical development include but are not limited to:

- inability to generate satisfactory preclinical, toxicology, or other *in vivo* or *in vitro* data to support the initiation or continuation of clinical studies necessary for product approval;
- delays in reaching agreement on acceptable terms with clinical research organizations or CROs and clinical study sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and clinical study sites;
- delays in obtaining required Institutional Review Board, or IRB, approval at each clinical study site;
- failure to permit the conduct of a study by regulatory authorities, after review of an investigational new drug, or IND, or equivalent foreign application or amendment;
- delays in recruiting qualified patients in our clinical studies;
- failure by clinical sites or our CROs or other third parties to adhere to clinical study requirements or report complete findings;
- failure to perform the clinical studies in accordance with the FDA's good clinical practices requirements, or applicable foreign regulatory guidelines;
- patients dropping out of our clinical studies;
- occurrence of adverse events associated with our product candidates;
- inability to use clinical trial results from foreign jurisdictions in support of U.S. regulatory approval;
- changes in regulatory requirements and guidance that require amending or submitting new clinical protocols;
- the cost of clinical studies of our product candidates;
- negative or inconclusive results from our clinical trials which may result in our deciding, or regulators requiring us, to conduct additional clinical studies or abandon development programs for a product candidate; and
- delays in reaching agreement on acceptable terms with third-party manufacturers, or delays in the manufacture of sufficient quantities of our product candidates for use in clinical studies.

Any inability to successfully complete clinical development and obtain regulatory approval could result in additional costs to us or impair our ability to generate revenue. Clinical study delays could also shorten any periods during which our products have patent protection and may allow competitors to develop and bring products to market before we do and may harm our business and results of operations.

Even if we receive regulatory approval of our product candidates, we will be subject to ongoing 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.

Any product candidate for which we obtain marketing approval, along with the manufacturing processes, post-approval clinical data, labeling, packaging, distribution, adverse event reporting, storage, recordkeeping, export, import, advertising and promotional activities for such product, among other things, will be subject to extensive and ongoing requirements of and review by the FDA and other regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, establishment registration and drug listing requirements, continued compliance with cGMP requirements relating to manufacturing, quality control, quality assurance and corresponding maintenance of records and documents, requirements regarding the distribution of samples to physicians and recordkeeping and Good Clinical Practice, or GCP, requirements for any clinical trials that we conduct post-approval.

The FDA closely regulates the post-approval marketing and promotion of genetic medicines to ensure they are marketed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA imposes stringent restrictions on manufacturers' communications regarding off-label use and if we market our products for uses beyond their approved indications, we may be subject to enforcement action for off-label marketing. Violations of the U.S. federal Food, Drug, and Cosmetic Act, or FDCA, relating to the promotion of prescription drugs may lead to FDA enforcement actions and investigations alleging violations of federal and state health care fraud and abuse laws, as well as state consumer protection laws.

In addition, later discovery of previously unknown adverse events or other problems with our products, manufacturers or manufacturing processes, 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 yield various results, including:

- restrictions on manufacturing such products;
- restrictions on the labeling or marketing of a product;
- restrictions on product distribution or use;
- requirements to conduct post-marketing studies or clinical trials;
- warning letters or holds on clinical trials;
- withdrawal of the products from the market;
- refusal to approve pending applications or supplements to approved applications that we submit;
- recall of products;
- fines, restitution or disgorgement of profits or revenues;
- suspension or withdrawal of marketing approvals;
- refusal to permit the import or export of our products;
- product seizure or detention; or
- injunctions or the imposition of civil or criminal penalties.

The FDA's policies may change, and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of any of our product candidates. For example, in December 2016, the 21st Century Cures Act, or Cures Act, was signed into law. The Cures Act, among other things, is intended to modernize the regulation of drugs and biologics and spur innovation, but its ultimate implementation is unclear. 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 which would adversely affect our business, prospects and ability to achieve or sustain profitability.

We also cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative or executive action, either in the United States or abroad. For example, certain policies of the Trump administration may impact our business and industry. Namely, the Trump administration has taken several executive actions, including the issuance of a number of Executive Orders, that could impose significant burdens on, or otherwise materially delay, FDA's ability to engage in routine regulatory and oversight activities such as implementing statutes through rulemaking, issuance of guidance, and review and approval of marketing applications. Notably, on January 30, 2017, President Trump issued an Executive Order, applicable to all executive agencies, including the FDA, that requires that for each notice of proposed rulemaking or final regulation to be issued in fiscal year 2017, the agency shall identify at least two existing regulations to be repealed, unless prohibited by law. These requirements are referred to as the "two-for-one" provisions. This Executive Order includes a budget neutrality provision that requires the total incremental cost of all new regulations in the 2017 fiscal year, including repealed regulations, to be no greater than zero, except in limited circumstances. For fiscal years 2018 and beyond, the Executive Order requires agencies to identify regulations to offset any incremental cost of a new regulation and approximate the total costs or savings associated with each new regulation or repealed regulation. In interim guidance issued by the Office of Information and Regulatory Affairs within the Office of Management and Budget on February 2, 2017, the Trump administration indicates that the "two-for-one" provisions may apply not only to agency regulations, but also to significant agency guidance documents. Further, on February 24, 2017, President Trump issued an Executive Order requiring each agency to designate a regulatory reform officer and create a regulatory reform task force to evaluate existing regulations and make recommendations regarding their repeal, replacement or modification. It is difficult to predict how these requirements will be implemented, and the extent to which they will impact the FDA's ability to exercise its regulatory authority. If these executive actions impose constraints on FDA's ability to engage in oversight and implementation activities in the normal course, our business may be negatively impacted.

Our product candidates may cause serious adverse events or undesirable side effects or have other properties which may delay or prevent their regulatory approval, limit the commercial profile of an approved label, or, result in significant negative consequences following marketing approval, if any.

Serious adverse events or undesirable side effects caused by our product candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other comparable foreign authorities. Results of our clinical trials could reveal a high and unacceptable severity and prevalence of side effects, toxicities or unexpected characteristics, including death.

For example, there have been significant adverse side effects in cell therapy treatments in the past, including reported cases of certain cancers. In addition to side effects that may be caused by our product candidates, the conditioning, administration process or related procedures also can cause adverse side effects, including compromise of a patient's immune system. If unacceptable side effects arise in the development of our product candidates, we, the FDA, the IRBs at the institutions in which our studies are conducted or Data Safety Monitoring Board, or DSMB, could suspend or terminate our clinical trials or the FDA or comparable foreign regulatory authorities could order us to cease clinical trials or deny approval of our product candidates for any or all targeted indications. Treatment-related side effects could also affect patient recruitment or the ability of enrolled patients to complete the trial or result in potential product liability claims. In addition, these side effects may not be appropriately recognized or managed by the treating medical staff. We expect to have to train medical personnel using our product candidates to understand the side effect profiles for our clinical trials and upon any commercialization of any of our product candidates. Inadequate training in recognizing or managing the potential side effects of our product candidates could result in patient injury or death. Any of these occurrences may harm our business, financial condition and prospects significantly.

If any of our product candidates receives marketing approval, and we or others later identify undesirable side effects caused by any such product, including during any long-term follow-up observation period recommended or required for patients who receive treatment using our products, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw approvals of such product;
- we may be required to recall a product or change the way such product is administered to patients;
- additional restrictions may be imposed on the marketing of the particular product or the manufacturing processes for the product;
- regulatory authorities may require additional warnings on the label, such as a "black box" warning or contraindication;
- we may be required to implement a Risk Evaluation and Mitigation Strategy, or REMS, or create a medication guide outlining the risks of such side effects for distribution to patients;
- the product could become less competitive;
- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

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

We face potential product liability, and, if successful claims are brought against us, we may incur substantial liability and costs. If the use or misuse of our product candidates harm patients or is perceived to harm patients even when such harm is unrelated to our product candidates, our regulatory approvals could be revoked or could otherwise be negatively impacted, and we could be subject to costly and damaging product liability claims.

The use or misuse of any product candidates in clinical trials and the sale of any products for which we obtain marketing approval exposes us to the risk of product liability claims. Product liability claims might be brought against us by consumers, healthcare providers, pharmaceutical companies, or others selling or otherwise coming into contact with our products. There is a risk that our product candidates may induce adverse events. If we cannot successfully defend against product liability claims, we could incur substantial liability and costs. In addition, regardless of merit or eventual outcome, product liability claims may result in:

- impairment of our business reputation;
- initiation of investigations by regulators;
- withdrawal of clinical trial participants;
- costs due to related litigation;
- distraction of management's attention from our primary business;
- substantial monetary awards to patients or other claimants;
- the inability to commercialize our product candidates;
- product recalls, withdrawals or labeling, and marketing or promotional restrictions;
- loss of revenue; and
- decreased demand for our product candidates, if approved for commercial sale.

We may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. If and when we commence clinical trials or obtain marketing approval for any product candidates, we intend to increase our insurance coverage to include clinical use or the sale of commercial products, as applicable; however, we may be unable to obtain product liability insurance on commercially reasonable terms or in adequate amounts. On occasion, large judgments have been awarded in class action lawsuits based on drugs or medical treatments that had unanticipated adverse effects. A successful product liability claim or series of claims brought against us could cause our stock price to decline and, if judgments exceed our insurance coverage, could adversely affect our results of operations and business.

Our insurance policies are expensive and protect us only from some business risks, which leaves us exposed to significant uninsured liabilities.

We do not carry insurance for all categories of risk that our business may encounter. Some of the policies we currently maintain include general liability, employment practices liability, property, auto, workers' compensation, umbrella, and directors' and officers' insurance.

Any additional product liability insurance coverage we acquire in the future, may not be sufficient to reimburse us for any expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive and, in the future, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. If we obtain marketing approval for any of our product candidates, we intend to acquire insurance coverage to include the sale of commercial products; however, we may be unable to obtain product liability insurance on commercially reasonable terms or in adequate amounts. A successful product liability claim or series of claims brought against us could cause our share price to decline and, if judgments exceed our insurance coverage, could adversely affect our results of operations and business, including preventing or limiting the commercialization of any product candidates we develop.

As a public company, it can be difficult and expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, it may be more difficult for us to attract and retain qualified people to serve on our Board of Directors, our board committees or as executive officers. We do not know, however, if we will be able to maintain existing insurance with adequate levels of coverage. Any significant uninsured liability may require us to pay substantial amounts, which would adversely affect our cash position and results of operations.

Our employees and independent contractors, including principal investigators, CROs, consultants, vendors, and any third parties we may engage in connection with development and commercialization may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could have a material adverse effect on our business.

Misconduct by our employees and independent contractors, including principal investigators, contract research organizations, or CROs, consultants, vendors, and any third parties we may engage in connection with development and commercialization, could include intentional, reckless or negligent conduct or unauthorized activities that violate: (i) the laws and regulations of the FDA, EMA rules and regulations and other similar regulatory requirements, including those laws that require the reporting of true, complete and accurate information to such authorities; (ii) manufacturing standards; (iii) data privacy, security, fraud and abuse and other healthcare laws and regulations; or (iv) laws that require the reporting of true, complete and accurate financial information and data. Specifically, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Activities subject to these laws could also involve the improper use or misrepresentation of information obtained in the course of clinical trials, creation of fraudulent data in pre-clinical studies or clinical trials or illegal misappropriation of drug product, which could result in regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter misconduct by employees and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with such laws or regulations. Additionally, we are subject to the risk that a person or government could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and results of operations, including the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, disgorgements, possible exclusion from participation in Medicare, Medicaid, other U.S. federal healthcare programs or healthcare programs in other jurisdictions, individual imprisonment, other sanctions, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of our operations.

Government-imposed bans or restrictions and religious, moral, and ethical concerns about the use of human embryonic stem cells could prevent us from developing and successfully marketing stem cell products.

Government-imposed bans or restrictions on the use of embryos or human embryonic stem cells ("hES cells"), in research and development in the United States and abroad could generally constrain stem cell research, thereby limiting the market and demand for our products.

California law requires that stem cell research be conducted under the oversight of a SCRO Committee. Many kinds of stem cell research, including the derivation of new hES cell lines, may only be conducted in California with the prior written approval of the SCRO Committee. A SCRO Committee could prohibit or impose restrictions on the research that we plan to do. An adverse decision by a SCRO Committee, or their imposition of restrictions on a research program could adversely affect our ability to enter into co-development or licensing arrangements for the development of a product candidate.

The use of hES cells may give rise to religious, moral, and ethical issues. These considerations could lead to more restrictive government regulations or could generally constrain stem cell research, thereby limiting the market and demand for our products.

Adverse publicity regarding cell-based therapies could impact our business.

Adverse publicity due to the ethical and social controversies surrounding the use of embryonic stem cells or any adverse reported side effects from any stem cell or other cell therapy clinical trials or to the failure of such trials to demonstrate that these therapies are efficacious could materially and adversely affect our ability to raise capital, conduct and complete clinical trials and achieve market acceptance of such products, if approved. For example, research institutions, including those who may be our collaborators, may from time to time publish findings or studies regarding the human genome (such as the Human Genome Project) that adversely implicate our product candidates, including findings of cancer dependencies in cell lines used in our cell-based therapies.

The price and sale of any products that we may develop may be limited by health insurance coverage and government regulation.

Success in selling our pharmaceutical and cell-based products and medical devices may depend in part on the extent to which health insurance companies, HMOs, and government health administration authorities such as Medicare and Medicaid will pay for the cost of the products and related treatment. Until we introduce a new product into the medical marketplace, we will not know with certainty whether adequate health insurance, HMO, and government coverage will be available to permit the product to be sold at a price high enough for us to generate a profit. In some foreign countries, pricing or profitability of health care products is subject to government control, which may result in low prices for our products. In the United States, there have been a number of federal and state proposals to implement similar government controls, and new proposals are likely to be made in the future. We cannot be sure that coverage and reimbursement in the United States, the EU or elsewhere will be available for our product candidates or any product that we may develop, and any reimbursement that may become available may be decreased or eliminated in the future.

Third-party payors increasingly are challenging prices charged for pharmaceutical products and services, and many third-party payors may refuse to provide coverage and reimbursement for particular drugs or biologics when an equivalent generic drug, biosimilar or a less expensive therapy is available. It is possible that a third-party payor may consider our product candidates as substitutable and only offer to reimburse patients for the less expensive product. Even if we show improved efficacy or improved convenience of administration with our product candidates, pricing of existing third-party therapeutics may limit the amount we will be able to charge for our product candidates. These payors may deny or revoke the reimbursement status of a given product or establish prices for new or existing marketed products at levels that are too low to enable us to realize an appropriate return on our investment in our product candidates. If reimbursement is not available or is available only at limited levels, we may not be able to successfully commercialize our product candidates and may not be able to obtain a satisfactory financial return on our product candidates.

There is significant uncertainty related to the insurance coverage and reimbursement of newly-approved products. In the United States, third-party payors, including private and governmental payors, such as the Medicare and Medicaid programs, play an important role in determining the extent to which new drugs and biologics will be covered. The Medicare and Medicaid programs increasingly are used as models in the United States for how private payors and other governmental payors develop their coverage and reimbursement policies for drugs and biologics. Some third-party payors may require pre-approval of coverage for new or innovative devices or drug therapies before they will reimburse healthcare providers who use such therapies. We cannot predict at this time what third-party payors will decide with respect to the coverage and reimbursement for our product candidates.

No uniform policy for coverage and reimbursement for products exists among third-party payors in the United States. Therefore, coverage and reimbursement for products can differ significantly from payor to payor. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our product candidates to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. Furthermore, rules and regulations regarding reimbursement change frequently, in some cases on short notice, and we believe that changes in these rules and regulations are likely.

Outside the United States, international operations are generally subject to extensive governmental price controls and other market regulations, and we believe the increasing emphasis on cost-containment initiatives in Europe and other countries have and will continue to put pressure on the pricing and usage of our product candidates. In many countries, the prices of medical products are subject to varying price control mechanisms as part of national health systems. Other countries allow companies to fix their own prices for medical products but monitor and control company profits. Additional foreign price controls or other changes in pricing regulation could restrict the amount that we are able to charge for our product candidates. Accordingly, in markets outside the United States, the reimbursement for our product candidates may be reduced compared with the United States and may be insufficient to generate commercially-reasonable revenue and profits.

Moreover, increasing efforts by governmental and third-party payors in the United States and abroad to cap or reduce healthcare costs may cause such organizations to limit both coverage and the level of reimbursement for newly approved products and, as a result, they may not cover or provide adequate payment for our product candidates. While it is not possible to predict or model the insurance landscape at the time any of our product candidates may receive regulatory approval, we expect to experience pricing pressures in connection with the sale of our product candidates due to the trend toward managed health care, the increasing influence of health maintenance organizations and additional legislative changes. The downward pressure on healthcare costs in general, particularly prescription drugs and biologics and surgical procedures and other treatments, has become intense. As a result, increasingly high barriers are being erected to the entry of new products.

Enacted and future healthcare legislation, including the ACA, may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and may affect the prices we may set.

In the United States, the EU and other jurisdictions, there have been, and we expect there will continue to be, a number of legislative and regulatory changes and proposed changes to the healthcare system that could affect our future results of operations. As a result of the adoption of the ACA in the United States, substantial changes have been made to the system for paying for healthcare in the United States. Certain provisions related to cost-savings and reimbursement measures could adversely affect our future financial performance. For example, among the provisions of the ACA, those of greatest importance to the biopharmaceutical industry includes the following:

- an annual, non-deductible fee payable by any entity that manufactures or imports certain branded prescription drugs and biologic agents (other than those designated as orphan drugs), which is apportioned among these entities according to their market share in certain government healthcare programs;

- new requirements to report certain financial arrangements with physicians and teaching hospitals, including reporting "transfers of value" made or distributed to prescribers and other healthcare providers and reporting investment interests held by physicians and their immediate family members;

- a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected;

- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to certain individuals with income at or below 133% of the federal poverty level, thereby potentially increasing a manufacturer's Medicaid rebate liability;

- a licensure framework for follow on biologic products;

- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; and

- establishment of a Center for Medicare Innovation at the Centers for Medicare & Medicaid Services, or CMS, to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending.

Since its enactment, some of the provisions of the ACA have yet to be fully implemented, while certain provisions have been subject to judicial, congressional, and executive challenges. As a result, there have been delays in the implementation of, and action taken to repeal or replace, certain aspects of the ACA. The U.S. Supreme Court has upheld certain key aspects of the legislation, including a tax-based shared responsibility payment imposed on certain individuals who fail to maintain qualifying health coverage for all or part of a year, which is commonly known as the requirement that all individuals maintain health insurance coverage or pay a penalty, referred to as the "individual mandate." However, as a result of tax reform legislation passed in December 2017, the individual mandate has been eliminated effective January 1, 2019. According to the Congressional Budget Office, the repeal of the individual mandate will cause 13 million fewer Americans to be insured in 2027 and premiums in insurance markets may rise.

Since January 2017, President Trump has signed two Executive Orders designed to delay the implementation of certain provisions of the ACA or otherwise circumvent some of the requirements for health insurance mandated by the ACA. One Executive Order directs federal agencies with authorities and responsibilities under the ACA to waive, defer, grant exemptions from, or delay the implementation of any provision of the ACA that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. The Order requires that for each notice of proposed rulemaking or final regulation to be issued in fiscal year 2017, the applicable agency shall identify at least two existing regulations to be repealed, unless prohibited by law. These requirements are referred to as the "two-for-one" provisions. This Executive Order includes a budget neutrality provision that requires the total incremental cost of all new regulations in the 2017 fiscal year, including repealed regulations, to be no greater than zero, except in limited circumstances. For fiscal years 2018 and beyond, the Executive Order requires agencies to identify regulations to offset any incremental cost of a new regulation and approximate the total costs or savings associated with each new regulation or repealed regulation. In interim guidance issued by the Office of Information and Regulatory Affairs within the Office of Management and Budget on February 2, 2017, the Trump administration indicates that the "two-for-one" provisions may apply not only to agency regulations, but also to significant agency guidance documents.

The second Executive Order terminates the cost-sharing subsidies that reimburse insurers under the ACA. Several state Attorneys General filed suit to stop the administration from terminating the subsidies, but their request for a restraining order was denied by a federal judge in California on October 25, 2017. The loss of the cost share reduction payments is expected to increase premiums on certain policies issued by qualified health plans under the ACA. In addition, the Centers for Medicare & Medicaid Services, or CMS, has recently proposed regulations that would give states greater flexibility in setting benchmarks for insurers in the individual and small group marketplaces, which may have the effect of relaxing the essential health benefits required under the ACA for plans sold through such marketplaces. Litigation and legislation over the ACA are likely to continue, with unpredictable and uncertain results. We continue to evaluate the effect that the ACA and its possible repeal and replacement has on our business.

Further, on February 24, 2017, President Trump issued an Executive Order requiring each agency to designate a regulatory reform officer and create a regulatory reform task force to evaluate existing regulations and make recommendations regarding their repeal, replacement or modification. It is difficult to predict how these requirements will be implemented, and the extent to which they will impact the FDA's ability to exercise its regulatory authority.

In addition, other legislative changes have been proposed and adopted in the United States since the ACA was enacted. In August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers of 2% per fiscal year. These reductions went into effect in April 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2025 unless additional action is taken by Congress. In January 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several types of providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws or any other similar laws introduced in the future may result in additional reductions in Medicare and other health care funding, which could negatively affect our customers and accordingly, our financial operations.

The costs of prescription pharmaceuticals in the United States has also been the subject of considerable debate, and members of Congress and the Trump Administration have indicated that each will address such costs through new legislative and administrative measures. To date, there have been several recent U.S. congressional inquiries and proposed state and federal legislation designed to, among other things, improve transparency in drug pricing, review the relationship between pricing and manufacturer patient programs, reduce the costs of drugs under Medicare, and reform government program reimbursement methodologies for drug products. The pricing of prescription pharmaceuticals is also subject to governmental control outside the United States. In these other countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost effectiveness of our product candidates to other available therapies. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our ability to generate revenues and become profitable could be impaired.

Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for approved products. In addition, there have been several recent Congressional inquiries and proposed bills designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, reduce the cost of drugs under Medicare and reform government program reimbursement methodologies for drugs. We cannot be sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent labeling and post-marketing testing and other requirements.

Moreover, payment methodologies may be subject to changes in healthcare legislation and regulatory initiatives. For example, CMS may develop new payment and delivery models, such as bundled payment models. In addition, recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products. We expect that additional U.S. federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that the U.S. federal government will pay for healthcare products and services, which could result in reduced demand for our product candidates or additional pricing pressures.

Individual states in the United States have also become increasingly aggressive in passing legislation and implementing 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. Legally-mandated price controls on payment amounts by third-party payors or other restrictions could harm our business, results of operations, financial condition and prospects. In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other healthcare programs. This could reduce the ultimate demand for our product candidates or put pressure on our product pricing.

In the EU, similar political, economic and regulatory developments may affect our ability to profitably commercialize our product candidates, if approved. In addition to continuing pressure on prices and cost containment measures, legislative developments at the EU or member state level may result in significant additional requirements or obstacles that may increase our operating costs. The delivery of healthcare in the EU, including the establishment and operation of health services and the pricing and reimbursement of medicines, is almost exclusively a matter for national, rather than EU, law and policy. National governments and health service providers have different priorities and approaches to the delivery of health care and the pricing and reimbursement of products in that context. In general, however, the healthcare budgetary constraints in most EU member states have resulted in restrictions on the pricing and reimbursement of medicines by relevant health service providers. Coupled with ever-increasing EU and national regulatory burdens on those wishing to develop and market products, this could prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to commercialize our product candidates, if approved.

In markets outside of the United States and EU, reimbursement and healthcare payment systems vary significantly by country, and many countries have instituted price ceilings on specific products and therapies.

We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action in the United States, the EU or any other jurisdiction. If we or any third parties we may engage are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we or such third parties are not able to maintain regulatory compliance, our product candidates may lose any regulatory approval that may have been obtained and we may not achieve or sustain profitability.

If we fail to comply with the extensive legal and regulatory requirements affecting the health care industry, we could face increased costs, penalties and a loss of business.

Our activities, and the activities of any collaborators, distributors and other third-party providers that we may engage in the future, will be subject to extensive government regulation and oversight both in the U.S. and in foreign jurisdictions. The FDA and comparable agencies in other jurisdictions will directly regulate many of our most critical business activities, including the conduct of preclinical and clinical studies, product manufacturing, advertising and promotion, product distribution, adverse event reporting, and product risk management. Our interactions in the U.S. or abroad with physicians and other health care providers that prescribe or purchase our products will also be subject to government regulation designed to prevent fraud and abuse in the sale and use of the products and place greater restrictions on the marketing practices of health care companies. Health care companies such as ours are facing heightened scrutiny of their relationships with health care providers from anti-corruption enforcement officials. In addition, health care companies such as ours have been the target of lawsuits and investigations alleging violations of government regulation, including claims asserting submission of incorrect pricing information, impermissible off-label promotion of pharmaceutical products, payments intended to influence the referral of health care business, submission of false claims for government reimbursement, antitrust violations, and violations related to environmental matters. Risks relating to compliance with laws and regulations may be heightened if we operate globally.

Regulations governing the health care industry are subject to change, with possibly retroactive effect, including:

- new laws, regulations or judicial decisions, or new interpretations of existing laws, regulations or decisions, related to health care availability, pricing or marketing practices, compliance with wage and hour laws and other employment practices, method of delivery, payment for health care products and services, compliance with health information and data privacy and security laws and regulations, tracking and reporting payments and other transfers of value made to physicians and teaching hospitals, extensive anti-bribery and anti-corruption prohibitions, product serialization and labeling requirements and used product take-back requirements;

- changes in the FDA and foreign regulatory approval processes that may delay or prevent the approval of new products and result in lost market opportunity;

- requirements that provide for increased transparency of clinical trial results and quality data, such as the EMA's clinical transparency policy, which could impact our ability to protect trade secrets and competitively-sensitive information contained in approval applications or could be misinterpreted leading to reputational damage, misperception, or legal action which could harm our business; and

- changes in FDA and foreign regulations that may require additional safety monitoring, labeling changes, restrictions on product distribution or use, or other measures after the introduction of our products to market, which could increase our costs of doing business, adversely affect the future permitted uses of approved products, or otherwise adversely affect the market for our products.

Violations of governmental regulation may be punishable by criminal and civil sanctions against us, including fines and civil monetary penalties and exclusion from participation in government programs, including Medicare and Medicaid, as well as sanctions against executives overseeing our business. In addition to penalties for violation of laws and regulations, we could be required to repay amounts we received from government payors or pay additional rebates and interest if we are found to have miscalculated the pricing information we have submitted to the government. We cannot ensure that our compliance controls, policies and procedures will in every instance protect us from acts committed by our employees, collaborators, partners or third-party providers that would violate the laws or regulations of the jurisdictions in which we operate. Whether or not we have complied with the law, an investigation into alleged unlawful conduct could increase our expenses, damage our reputation, divert management time and attention, and adversely affect our business.

We may be subject, directly or indirectly, to federal and state healthcare fraud and abuse laws, false claims laws, and health information privacy and security laws, and if we are unable to comply with such laws, we could face substantial penalties.

If we obtain FDA approval for any of our product candidates or technologies and begin commercializing those products or technologies in the United States, our operations may be subject to various federal and state fraud and abuse laws, including, without limitation, the federal Anti-Kickback Statute, the federal False Claims Act, and physician sunshine laws and regulations. These laws may impact, among other things, our proposed sales, marketing, and education programs. In addition, we may be subject to patient privacy regulation by both the federal government and the states in which we conduct our business. The laws that may affect our ability to operate include:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, to induce, or in return for, the purchase or recommendation of an item or service reimbursable under a federal healthcare program, such as the Medicare and Medicaid programs;

- federal civil and criminal false claims laws and civil monetary penalty laws, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid, or other third-party payors that are false or fraudulent;

- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created new federal criminal statutes that prohibit executing a scheme to defraud any healthcare benefit program and making false statements relating to healthcare matters;

- HIPAA, as amended by the Health Information Technology and Clinical Health Act, or HITECH, and implementing regulations, which impose certain requirements relating to the privacy, security, and transmission of individually identifiable health information;

- the Physician Payments Sunshine Act which requires manufacturers of drugs, devices, biologics, and medical supplies to report annually to the U.S. Department of Health and Human Services information related to payments and other transfers of value to physicians, other healthcare providers, and teaching hospitals, and ownership and investment interests held by physicians and other healthcare providers and their immediate family members and applicable group purchasing organizations;

- the FDCA, which prohibits, among other things, the adulteration or misbranding of drugs, biologics and medical devices;

- the U.S. Public Health Service Act, which prohibits, among other things, the introduction into interstate commerce of a biological product unless a biologics license is in effect for that product; and

- state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws that may apply to items or services reimbursed by any third-party payors, including commercial 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, or that otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state 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; and state laws governing the privacy and security of health information in certain circumstances.

Because of the breadth of these laws and the narrowness of the statutory exceptions and safe harbors available, it is possible that some of our business activities could be subject to challenge under one or more of such laws. In addition, recent health care reform legislation has strengthened these laws. Further, state laws differ from each other and from federal law in significant ways, thus complicating compliance efforts.

If our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply, we may be subject to penalties, including civil and criminal penalties, damages, fines, exclusion from participation in government health care programs, such as Medicare and Medicaid, imprisonment, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

Risks Related to our Dependence on Third Parties

We may become dependent on future collaborations to develop and commercialize our product candidates and to provide the regulatory compliance, sales, marketing, and distribution capabilities required for the success of our business.

We may enter into various kinds of collaborative research and development and product marketing agreements to develop and commercialize our products. The expected future milestone payments and cost reimbursements from collaboration agreements could provide an important source of financing for our research and development programs, thereby facilitating the application of our technology to the development and commercialization of our products, but there are risks associated with entering into collaboration arrangements.

The process of establishing and maintaining collaborative relationships is difficult, time-consuming and involves significant uncertainty, such as:

- a collaboration partner may shift its priorities and resources away from our product candidates due to a change in business strategies, or a merger, acquisition, sale or downsizing;
- a collaboration partner may seek to renegotiate or terminate their relationships with us due to unsatisfactory clinical results, manufacturing issues, a change in business strategy, a change of control or other reasons;
- a collaboration partner may cease development in therapeutic areas which are the subject of our strategic collaboration;
- a collaboration partner may not devote sufficient capital or resources towards our product candidates;
- a collaboration partner may change the success criteria for a product candidate thereby delaying or ceasing development of such candidate;
- a significant delay in initiation of certain development activities by a collaboration partner will also delay payment of milestones tied to such activities, thereby impacting our ability to fund our own activities;
- a collaboration partner could develop a product that competes, either directly or indirectly, with our product candidate;
- a collaboration partner with commercialization obligations may not commit sufficient financial or human resources to the marketing, distribution or sale of a product;
- a collaboration partner with manufacturing responsibilities may encounter regulatory, resource or quality issues and be unable to meet demand requirements;
- a collaboration partner may terminate a strategic alliance;
- a dispute may arise between us and a partner concerning the research, development or commercialization of a product candidate resulting in a delay in milestones, royalty payments or termination of an alliance and possibly resulting in costly litigation or arbitration which may divert management attention and resources; and
- a partner may use our products or technology in such a way as to invite litigation from a third party.

There is a risk that a collaboration partner might fail to perform its obligations under the collaborative arrangements or may be slow in performing its obligations. In addition, a collaboration partner may experience financial difficulties at any time that could prevent it from having available funds to contribute to the collaboration. If a collaboration partner fails to conduct its product development, commercialization, regulatory compliance, sales and marketing or distribution activities successfully and in a timely manner, or if it terminates or materially modifies its agreements with us, the development and commercialization of one or more product candidates could be delayed, curtailed, or terminated because we may not have sufficient financial resources or capabilities to continue such development and commercialization on our own.

We have no marketing, sales, or distribution resources for the commercialization of any products or technologies that we might successfully develop.

We do not have any infrastructure for the sales, marketing or distribution of our products, and the cost of establishing and maintaining such an organization may exceed the cost-effectiveness of doing so. There are significant expenses and risks involved with establishing our own sales, marketing and distribution capabilities, including our ability to hire, retain and appropriately incentivize qualified individuals, generate sufficient sales leads, provide adequate training to sales and marketing personnel, and effectively manage a geographically dispersed sales and marketing team. Any failure or delay in the development of our internal sales, marketing and distribution capabilities could delay any product launch, which would adversely impact the commercialization of any approved product candidate.

If we market products through arrangements with third parties, we may pay sales commissions to sales representatives or we may sell or consign products to distributors at wholesale prices. As a result, our gross profit from product sales may be lower than it would be if we were to sell our products directly to end users at retail prices through our own sales force. There can be no assurance we will able to negotiate distribution or sales agreements with third parties on favorable terms to justify our investment in our products or achieve sufficient revenues to support our operations.

If we are unable to build our own sales force or negotiate a collaborative relationship for the commercialization of our product candidates, we may be forced to delay the potential commercialization of such candidates or reduce the scope of our sales or marketing activities for them. If we elect to increase our expenditures to fund commercialization activities ourselves, we will need to obtain additional capital, which may not be available to us on acceptable terms, or at all. We could enter into arrangements with collaborative partners at an earlier stage than otherwise would be ideal and we may be required to relinquish rights to our product candidates or otherwise agree to terms unfavorable to us, any of which may have an adverse effect on our business, operating results and prospects.

If we are unable to establish adequate sales, marketing and distribution capabilities, either on our own or in collaboration with third parties, we will not be successful in commercializing our product candidates and may not become profitable and may incur significant additional losses. We will be competing with many companies that currently have extensive and well-funded marketing and sales operations. Without an internal team or the support of a third party to perform marketing and sales functions, we may be unable to compete successfully against these more established companies.

We do not have the ability to independently conduct clinical trials required to obtain regulatory approvals for our product candidates and intend to rely on third parties to conduct, supervise and monitor our clinical trials.

We will need to rely on third parties, such as contract research organizations, data management companies, contract clinical research associates, medical institutions, clinical investigators and contract laboratories to conduct any clinical trials that we may undertake for our product candidates. We may also rely on third parties to assist with our preclinical development of product candidates.

If we outsource clinical trials, we may be unable to directly control the timing, conduct and expense of our clinical trials. However, we will remain responsible for ensuring that each of our studies is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards and our reliance on the CROs does not relieve us of our regulatory responsibilities.

We and our third-party contractors will be required to comply with the GLPs and GCPs, which are regulations and guidelines enforced by the FDA and are also required by the Competent Authorities of the Member States of the European Economic Area and comparable foreign regulatory authorities in the form of International Conference on Harmonization guidelines for any of our product candidates that are in preclinical and clinical development. The Regulatory authorities enforce GCPs through periodic inspections of trial sponsors, principal investigators and clinical trial sites. If we or our third-party contractors fail to comply with GCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of our clinical trials comply with GCP regulations. In addition, our clinical trials must be conducted with product produced under cGMP regulations. Accordingly, if our third-party contractors fail to comply with these regulations or fail to recruit a sufficient number of subjects, we may be required to repeat clinical trials, which would delay the regulatory approval process.

Our third-party contractors will not be our employees, and we will not control whether or not they devote sufficient time and resources to our future clinical and nonclinical programs. These third-party contractors may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical trials, or other product development activities which could harm our competitive position. We face the risk of potential unauthorized disclosure or misappropriation of our intellectual property by third-party contractors, which may reduce our trade secret protection and allow our potential competitors to access and exploit our proprietary technology. If our third-party contractors do not successfully carry out their contractual duties or obligations, fail to meet expected deadlines, or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements or for any other reasons, our clinical trials may be extended, delayed or terminated, and we may not be able to obtain regulatory approval for, or successfully commercialize any product candidate that we develop. As a result, our financial results and the commercial prospects for any product candidate that we develop would be harmed, our costs could increase, and our ability to generate revenues could be delayed.

If our relationship with any third-party contractors terminate, we may not be able to enter into arrangements with alternative third-party contractors or do so on commercially reasonable terms. Switching or adding additional third-party contractors involves substantial cost and requires management time and focus. In addition, there is a natural transition period when a new third party commences work. As a result, delays occur, which can materially impact our ability to meet our desired clinical development timelines. Though we intend to carefully manage our relationships with our third-party contractors, there can be no assurance that we will not encounter challenges or delays in the future or that these delays or challenges will not have an adverse impact on our business, financial condition and prospects.

Risks Related to Intellectual Property

If we are unable to obtain and enforce patents and to protect our trade secrets, others could use our technology to compete with us, which could limit opportunities for us to generate revenues by licensing our technology and selling our products.

- Our success will depend in part on our ability to obtain and enforce patents and maintain trade secrets in the United States and in other countries. If we are unsuccessful in obtaining and enforcing patents, our competitors could use our technology and create products or technologies that compete with our products and technologies, without paying license fees or royalties to us.

- The preparation, filing, and prosecution of patent applications can be costly and time consuming. Our limited financial resources may not permit us to pursue patent protection of all of our technology and products throughout the world.

- Even if we are able to obtain issued patents covering our technology or products, we may have to incur substantial legal fees and other expenses to enforce our patent rights in order to protect our technology and products from infringing uses. We may not have the financial resources to finance the litigation required to preserve our patent and trade secret rights.

There is no certainty that our pending or future patent applications will result in the issuance of patents.

We acquired rights to patent applications for technology that Lineage has developed, and we may file additional new patent applications in the future seeking patent protection for new technology or products that we develop ourselves or jointly with others. However, there is no assurance that any of our licensed patent applications, or any patent applications that we may file in the future in the United States or abroad, will result in the issuance of patents.

The process of applying for and obtaining patents can be expensive and slow.

- The preparation and filing of patent applications, and the maintenance of patents that are issued, may require substantial time and money.

- A patent interference proceeding may be instituted with the U.S. Patent and Trademark Office (the "USPTO") when more than one person files a patent application covering the same technology, or if someone wishes to challenge the validity of an issued patent. At the completion of the interference proceeding, the USPTO will determine which competing applicant is entitled to the patent, or whether an issued patent is valid. Patent interference proceedings are complex, highly contested legal proceedings, and the USPTO's decision is subject to appeal. This means that if an interference proceeding arises with respect to any of our patent applications, we may experience significant expenses and delay in obtaining a patent, and if the outcome of the proceeding is unfavorable to us, the patent could be issued to a competitor rather than to us.

- A derivation proceeding may be instituted by the USPTO or an inventor alleging that a patent or application was derived from the work of another inventor.

- Post Grant Review under the new America Invents Act will make available opposition-like proceedings in the United States. As with the USPTO interference proceedings, Post Grant Review proceedings will be very expensive to contest and can result in significant delays in obtaining patent protection or can result in a denial of a patent application.

- Oppositions to the issuance of patents may be filed under European patent law and the patent laws of certain other countries. As with USPTO interference proceedings, these foreign proceedings can be very expensive to contest and can result in significant delays in obtaining a patent or can result in a denial of a patent application.

Intellectual property we may develop using grants received from the federal government are subject to rights maintained by the government.

Research and development we perform that is funded by grants from the federal government, and any intellectual property that we create using those grants, is subject to the rights maintained by the federal government.

Our patents may not protect our technologies or products from competition.

- We might not be able to obtain any patents beyond those we already own or have licensed or sublicensed, and any patents that we do obtain might not be comprehensive enough to provide us with meaningful patent protection.

- There will always be a risk that our competitors might be able to successfully challenge the validity or enforceability of any patent issued to us.

- In addition to interference proceedings, the USPTO can reexamine issued patents at the request of a third party. Our patents may be subject to inter partes review (replacing the reexamination proceeding), a proceeding in which a third party can challenge the validity of one of our patents to have the patent invalidated. This means that patents owned or licensed by us may be subject to reexamination and may be lost if the outcome of the reexamination is unfavorable to us.

- The patents to which we have licenses to, including the licenses to HyStem are broadly licensed to other companies and in some instances, in overlapping fields of use. Asterias Biotherapeutics, Inc. ("Asterias"), a wholly-owned subsidiary of Lineage, has a non-exclusive license to HyStem patents in certain fields of use that overlap with the AgeX sublicensed fields of use. Asterias and AgeX may create competing products. In addition, AgeX, through our subsidiary ReCyte Therapeutics, is a sublicensee under a cross-license between Lineage and Asterias, which creates another potential risk of Asterias and AgeX creating competing products.

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

Filing, prosecuting and defending patents, if issued, on our technology and product candidates in all countries throughout the world would be prohibitively expensive. The requirements for patentability may differ in certain countries, particularly in developing countries. 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 may obtain patent protection, but where patent enforcement is not as strong as that in the United States. The products offered by foreign competitors may compete with our products in jurisdictions where we do not have any issued or licensed patents or where any future patent claims or other intellectual property rights may not be effective or sufficient to prevent them from competing with us.

Moreover, our ability to protect and enforce our intellectual property rights may be adversely affected by unforeseen changes in foreign intellectual property laws. Additionally, laws of some countries outside of the United States and Europe do not afford intellectual property protection to the same extent as the laws of the United States and Europe. Many companies have encountered significant problems in protecting and defending intellectual property rights in certain foreign jurisdictions. The legal systems of some countries, including India, China and certain developing countries, do not favor the enforcement of patents and other intellectual property rights. This could make it difficult for us to stop the infringement of our patents or the misappropriation of our other intellectual property rights. For example, many foreign countries have compulsory licensing laws under which a patent owner must grant licenses to third parties. Consequently, we may not be able to prevent third parties from practicing our inventions in certain countries outside the United States and Europe. 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, if our ability to enforce our patents to stop infringing activities is inadequate. These products may compete with our products, and our patents, if issued, or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Proceedings to enforce our patent rights in foreign jurisdictions, whether or not successful, could result in substantial costs and divert our efforts and resources from other aspects of our business. Furthermore, while we intend to protect our intellectual property rights in major markets, we cannot ensure that we will be able to initiate or maintain similar efforts in all jurisdictions in which we may wish to market products or license our patented technologies. Accordingly, our efforts to protect our intellectual property rights in such countries may be inadequate.

We may be subject to patent infringement claims that could be costly to defend, which may limit our ability to use disputed technologies, and which could prevent us from pursuing research and development or commercialization of some of our technologies or products, require us to pay licensing fees to have freedom to operate and/or result in monetary damages or other liability for us.

The success of our business depends significantly on our ability to operate without infringing patents and other proprietary rights of others. If the technology that we use infringes a patent held by others, we could be sued for monetary damages by the patent holder or its licensee, or we could be prevented from continuing research, development, and commercialization of technologies and products that rely on that technology, unless we are able to obtain a license to use the patent. The cost and availability of a license to a patent cannot be predicted, and the likelihood of obtaining a license at an acceptable cost would be lower if the patent holder or any of its licensees is using the patent to develop or market a technology or product with which our technologies or products would compete. If we could not obtain a necessary license, we would need to develop or obtain rights to alternative technologies, which could prove costly and could cause delays in developing our technologies or products, or we could be forced to discontinue the development or marketing of any technologies and products that were developed using the technology covered by the patent.

Risks Related to Our Relationship with Juvenescence

Our Chief Financial Officer and Chief Operating Officer are not fulltime AgeX employees.

Our Chief Financial Officer is providing services to us on a part-time basis as a consultant. Because he is not a full-time employee, we may compete for his time and attention with other companies for whom he may provide services. Our Chief Operating Officer is an employee of Juvenescence and is expected to devote 85% of his time to our affairs and the balance of his time to the affairs of Juvenescence and accordingly we may compete with Juvenescence for his time and attention.

Conflicts of interest may arise from our relationship with Juvenescence, which owns a significant percentage of our common stock and is a significant creditor and will be able to substantially influence us and exert control over matters subject to stockholder approval and the election of directors.

As of March 16, 2020, Juvenescence beneficially owned approximately 43.6% of the voting power of our outstanding common stock, which will be enable them to substantially influence us and exert control through this ownership position. For example, Juvenescence will be able to exert control over or substantially influence elections of directors, approval of our equity incentive plans, amendments to our organizational documents, or approval of any merger, amalgamation, sale of assets or other major corporate transaction. Juvenescence has controlling stakes and minority investments in several other companies engaged in various aspects of the aging industry, which companies may propose collaborations with AgeX. Juvenescence has also loaned AgeX $2 million and has agreed to provide additional loans subject to certain conditions under the New Loan Agreement as described in Note 9 to the financial statements included in this Report. Juvenescence's interests may not always coincide with our corporate interests or the interests of other stockholders, and it may exercise its voting and other rights, including rights as a creditor, in a manner with which other stockholders may not agree or that may not be in the best interests of AgeX or stockholders other than Juvenescence. So long as Juvenescence continues to own a significant amount of our equity and remains a significant creditor, it will continue to be able to strongly influence and effectively control our decisions. While the directors elected by Juvenescence will be obligated to act in accordance with their fiduciary duty, they may have equity or other interests in Juvenescence and, accordingly, their interests may be aligned with Juvenescence's interests, which may not always coincide with our corporate interests or the interests of our other stockholders.

Risks Pertaining to Our Common Stock

There is a limited history to the public trading of our common stock and there is no assurance that a market for our common stock will be sustained.

Public trading of our common stock on the NYSE American began on November 29, 2018. Accordingly, there is only a limited history of the public trading of our common stock and there can be no assurance that an active market for our common stock will be sustained.

We cannot predict the prices at which our common stock may trade. The market price of our common stock may fluctuate significantly, depending upon many factors, some of which may be beyond our control, including, but not limited to:

- a shift in our investor base;
- our quarterly or annual earnings, or those of comparable companies;
- actual or anticipated fluctuations in our operating results;

- our ability to obtain financing as needed;
- changes in laws and regulations affecting our business;
- changes in accounting standards, policies, guidance, interpretations or principles;
- announcements by us or our competitors of significant investments, acquisitions or dispositions;
- the failure of securities analysts to cover our common stock;
- changes in earnings estimates by securities analysts or our ability to meet those estimates;
- the operating performance and stock price of comparable companies;
- overall market fluctuations; and
- general economic conditions and other external factors.

Because we are engaged in the development of pharmaceutical and cell therapy products, the price of shares of our common stock may rise and fall rapidly.

The price of our common stock may rise rapidly in response to certain events, such as the commencement of clinical trials of an experimental new therapy, even though the outcome of those trials and the likelihood of ultimate FDA approval of a therapeutic product remain uncertain. Similarly, prices of our common stock may fall rapidly in response to certain events such as unfavorable results of clinical trials or a delay or failure to obtain FDA approval. Further, the failure of our earnings to meet analysts' expectations could result in a significant rapid decline in the market price of our common stock

Because we do not pay dividends, our stock may not be a suitable investment for anyone who needs to earn dividend income.

We do not have current plans to pay any cash dividends on our common stock. The declaration, amount and payment of any future dividends on shares of common stock will be at the sole discretion of our Board of Directors. Our Board of Directors may take into account general and economic conditions, our financial condition and results of operations, our available cash and current and anticipated cash needs, capital requirements, contractual, legal, tax and regulatory restrictions and implications on the payment of dividends by us to our stockholders or by our subsidiaries to us and such other factors as our Board of Directors may deem relevant. For the foreseeable future we anticipate that any earnings generated in our business will be used to finance the growth of our business and will not be paid out as dividends to our stockholders. This means that our stock may not be a suitable investment for anyone who needs to earn income from their investments.

Securities analysts may not initiate coverage or continue to cover our common stock, and this may have a negative impact on the market price of our shares.

The market price and liquidity of our common stock will depend, in part, on the research and reports that securities analysts publish about our business and our common stock. We do not have any control over these analysts. There is no guarantee that securities analysts will cover our common stock. If securities analysts do not cover our common stock, the lack of research coverage may adversely affect the market price of those shares. If securities analysts do cover our shares, they could issue reports or recommendations that are unfavorable to the price of our shares, and they could downgrade a previously favorable report or recommendation, and in either case our share price could decline as a result of the report. If one or more of these analysts ceases to cover our shares or fails to publish regular reports on our business, we could lose visibility in the financial markets, which could cause our share price or trading volume to decline.

You may experience dilution of your ownership interests if we issue additional shares of common stock or preferred stock.

In the future, we may issue our authorized but previously unissued equity securities, resulting in the dilution of the ownership interests of our present stockholders. We are currently authorized to issue an aggregate of 105,000,000 shares of capital stock consisting of 100,000,000 shares of common stock and 5,000,000 "blank check" shares of preferred stock. As of March 16, 2020, there were 37,656,415 shares of common stock issued and outstanding, and 2,895,979 shares of common stock reserved for issuance upon the exercise of outstanding stock options or other stock-based awards under our 2017 Equity Incentive Plan. No shares of preferred stock are presently outstanding. Under the terms of the New Loan Agreement, we will issue shares of common stock and common stock purchase warrants to Juvenescence. The total number of shares of common stock that we will issue to Juvenescence will depend on whether Juvenescence elects to exercise its right to convert the principal amount of outstanding loans under the New Loan Agreement into shares of our common stock and the market price of our common stock if a conversion takes place. The total number of warrants that we will issue to Juvenescence will depend on the amount of funds we borrow under the New Loan Agreement and the market price of our common stock. See Note 9 to our consolidated financial statements included elsewhere in this Report.

We may issue additional common stock or other securities that are convertible into or exercisable for common stock in order to raise additional capital, or in connection with hiring or retaining employees or consultants, or in connection with future acquisitions of licenses to technology or medical products or for other business purposes. The future issuance of any additional shares of common stock or other securities may create downward pressure on the trading price of our common stock.

We may also issue preferred stock having rights, preferences, and privileges senior to the rights of our common stock with respect to dividends, rights to share in distributions of our assets if we liquidate our company, or voting rights. Any preferred stock may also be convertible into common stock on terms that would be dilutive to holders of common stock.

We may finance a portion of our operations by organizing subsidiaries and selling shares of capital stock in those subsidiaries to private investors. Sales of subsidiary shares would reduce our ownership interest in the subsidiaries, and correspondingly dilute our shareholder's ownership interests in our consolidated enterprise. Our subsidiaries could also have their own stock option plans and the exercise of subsidiary stock options or the sale of restricted stock under those plans would also reduce our ownership interest in the subsidiaries, with a resulting dilutive effect on the ownership interest of our shareholders in our consolidated enterprise. Subsidiaries might also issue preferred stock having rights, preferences, and privileges senior to the rights of the subsidiary common stock we hold with respect to dividends, rights to share in distributions of our assets if the subsidiary is liquidated, or voting rights. Any subsidiary preferred stock may also be convertible into common stock on terms that would be dilutive to us as a holder of subsidiary common stock.

Unless our common stock continues to be listed on a national securities exchange it will become subject to the so-called "penny stock" rules that impose restrictive sales practice requirements.

If we are unable to maintain the listing of our common stock on the NYSE American or another national securities exchange, our common stock could become subject to the so-called "penny stock" rules if the shares have a market value of less than $5.00 per share. The SEC has adopted regulations that define a penny stock to include any stock that has a market price of less than $5.00 per share, subject to certain exceptions, including an exception for stock traded on a national securities exchange. The SEC regulations impose restrictive sales practice requirements on broker-dealers who sell penny stocks to persons other than established customers and accredited investors. An accredited investor generally is a person whose individual annual income exceeded $200,000, or whose joint annual income with a spouse exceeded $300,000 during the past two years and who expects their annual income to exceed the applicable level during the current year, or a person with net worth in excess of $1.0 million, not including the value of the investor's principal residence and excluding mortgage debt secured by the investor's principal residence up to the estimated fair market value of the home, except that any mortgage debt incurred by the investor within 60 days prior to the date of the transaction shall not be excluded from the determination of the investor's net worth unless the mortgage debt was incurred to acquire the residence. For transactions covered by this rule, the broker-dealer must make a special suitability determination for the purchaser and must have received the purchaser's written consent to the transaction prior to sale. This means that if we are unable maintain the listing of our common stock on a national securities exchange, the ability of stockholders to sell their AgeX common stock in the secondary market could be adversely affected.

If a transaction involving a penny stock is not exempt from the SEC's rule, a broker-dealer must deliver a disclosure schedule relating to the penny stock market to each investor prior to a transaction. The broker-dealer also must disclose the commissions payable to both the broker-dealer and its registered representative, current quotations for the penny stock, and, if the broker-dealer is the sole market-maker, the broker-dealer must disclose this fact and the broker-dealer's presumed control over the market. Finally, monthly statements must be sent disclosing recent price information for the penny stock held in the customer's account and information on the limited market in penny stocks.

We are an "emerging growth company," and may elect to comply with reduced public company reporting requirements applicable to emerging growth companies, which could make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act, and we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies" including reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile. We may take advantage of these reporting exemptions until we are no longer an "emerging growth company." We will remain an "emerging growth company" until the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of $1.07 billion or more; (ii) the last day of the fiscal year following the fifth anniversary of the date of the first sale of our common equity securities pursuant to an effective registration statement under the Securities Act; (iii) the date on which we have issued more than $1.0 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a "large accelerated filer" under the Exchange Act.

We could be subject to securities class action litigation.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because biopharmaceutical companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business.

Provisions in our certificate of incorporation and bylaws and under Delaware law could make an acquisition of our company, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our certificate of incorporation and our bylaws may discourage, delay or prevent a merger, acquisition or other change in control of our company that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, because our Board of Directors is responsible for appointing the members of our management team, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our Board of Directors. Among other things, these provisions include those establishing:

- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- the ability of our Board of Directors to authorize the issuance of shares of preferred stock and to determine the terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquirer; and
- the ability of our Board of Directors to alter our bylaws without obtaining stockholder approval.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the General Corporation Law of the State of Delaware, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our office and laboratory facilities comprise approximately 23,911 square feet of subleased space in an office and research park at 965 Atlantic Avenue, Alameda, California. We have constructed a cGMP laboratory in this space for the manufacture of our cell lines and cell based product candidates. The sublease term will expire on December 31, 2020.

Item 3. Legal Proceedings

From time to time, we may be involved in routine litigation incidental to the conduct of our business. We are not presently involved in any material litigation or proceedings, and to our knowledge no such litigation or proceedings are contemplated.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

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

Our common stock has been traded on the NYSE American under the symbol "AGE" since November 29, 2018.

As of March 2, 2020, we had 261 holders of record of our common stock. This number does not include stockholders whose shares of AgeX common stock are held in "street name" in accounts with securities broker-dealers or other financial institutions or fiduciaries.

The following table shows certain information concerning the stock options outstanding and available for issuance under all of our compensation plans and agreements as of December 31, 2019 (in thousands, except weighted average exercise price):

Plan Category	Number of Shares to be Issued upon Exercise of Outstanding Options, Warrants, and Rights	Weighted Average Exercise Price of the Outstanding Options, Warrants, and Rights	Number of Shares Remaining Available for Future Issuance under Equity Compensation Plans
AgeX Stock Option Plans Approved by Stockholders	2,895	$ 2.69	1,054

Additional information concerning our 2017 Equity Incentive Plan and the stock options may be found in Note 6 to the Financial Statements.

Item 6. Selected Financial Data

Not applicable.

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

The following Management's Discussion and Analysis of Financial Condition and Results of Operations is intended to provide information necessary to understand our audited consolidated financial statements for the years ended December 31, 2019 and 2018, and highlight certain other information which, in the opinion of management, will enhance a reader's understanding of our financial condition, changes in financial condition and results of operations. These historical financial statements may not be indicative of our future performance. This Management's Discussion and Analysis of Financial Condition and Results of Operations contains a number of forward-looking statements, all of which are based on our current expectations and could be affected by the uncertainties and risks described throughout this filing, particularly in "Risk Factors."

Emerging Growth Company Status

The Jumpstart our Business Startups Act of 2012 ("JOBS Act") permits an "emerging growth company" such as AgeX to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. However, we elected to comply with newly adopted or revised accounting standards when they become applicable to public companies because our financial statements were consolidated with those of Lineage, which is not an emerging growth company under the JOBS Act and is therefore not permitted to delay the adoption of new or revised accounting standards that become applicable to public companies. This election under the JOBS Act to not delay the adoption of new or revised accounting standards is irrevocable.

Overview

We are a biotechnology company focused on the development and commercialization of novel therapeutics targeting human aging and degenerative diseases. Our initial discovery and preclinical programs focus on utilizing brown adipose tissue in targeting diabetes, obesity, and heart disease; and induced tissue regeneration in utilizing the human body's own abilities to scarlessly regenerate tissues damaged from age or trauma. We may also pursue other early-stage pre-clinical programs.

Since inception, our operations have focused on building our technology platform, identifying potential product candidates, establishing and protecting our intellectual property and raising capital. Our revenues have been principally derived from subscription and advertising revenue from LifeMap Sciences' online databases based upon applicable subscription or advertising periods. We do not have any products approved for sale and have not generated any revenue from product sales.

Since inception, we have incurred significant operating losses and we will need to obtain additional financing in order to continue our operations, including our research and development programs. See "Liquidity and Capital Resources" for a discussion of our available capital resources and our need for financing. Our operating losses were $12.6 million and $11.2 million, for the years ended December 31, 2019 and 2018, respectively. As of December 31, 2019, we had an accumulated deficit of $86.2 million. We expect to continue to incur significant expenses and operating losses for the foreseeable future.

Critical Accounting Policies

The preparation of financial statements in conformity with accounting principles generally accepted in the United States ("GAAP"), requires management to make estimates and assumptions that affect the reported amounts in our consolidated financial statements and related notes. Our significant accounting policies are described in Note 2 to our consolidated financial statements included elsewhere in this Report. We have identified below our critical accounting policies and estimates that we believe require the greatest amount of judgment. On an ongoing basis, we evaluate our estimates that are subject to significant judgment including those related to going concern assessment of consolidated financial statements, allocations and adjustments necessary for carve-out basis of presentation, including the separate return method for income taxes, useful lives associated with long-lived assets, including evaluation of asset impairment, allowances for uncollectible accounts receivables, loss contingencies, deferred income taxes and tax reserves, including valuation allowances related to deferred income taxes, and assumptions used to value stock-based awards, or other equity instruments. Actual results could differ materially from those estimates. On an ongoing basis, we evaluate our estimates compared to historical experience and trends, which form the basis for making judgments about the carrying value of assets and liabilities. To the extent that there are material differences between our estimates and our actual results, our future consolidated financial statement presentation, financial condition, results of operations and cash flows will be affected.

We believe the assumptions and estimates associated with the following have the greatest potential impact on our consolidated financial statements.

Principles of consolidation – AgeX's consolidated financial statements include the accounts of its subsidiaries and certain research and development departments, including former Lineage personnel, transferred from Lineage to AgeX in connection with the Asset Contribution Agreement described in Note 4 to our consolidated financial statements. AgeX consolidated its direct and indirect wholly-owned or majority-owned subsidiaries because AgeX has the ability to control their operating and financial decisions and policies through its ownership, and the noncontrolling interest is reflected as a separate element of stockholders' equity on AgeX's consolidated balance sheets.

As of, and for the year ended, December 31, 2019, AgeX consolidated ReCyte Therapeutics, LifeMap Sciences, Inc. ("LifeMap Sciences"), and LifeMap Sciences, Ltd. (Israel) and included the historical expenses of certain former Lineage research and development departments (see Note 4 to our consolidated financial statements).

Going concern assessment – We assess going concern uncertainty for our consolidated financial statements to determine if we have sufficient cash and cash equivalents on hand and working capital to operate for a period of at least one year from the date our consolidated financial statements are issued or are available to be issued, which is referred to as the "look-forward period" as defined by FASB's ASU No. 2014-15. As part of this assessment, based on conditions that are known and reasonably knowable to us, we consider various scenarios, forecasts, projections, and estimates, and we make certain key assumptions, including the timing and nature of projected cash expenditures or programs, among other factors, and our ability to delay or curtail those expenditures or programs within the look-forward period in accordance with ASU No. 2014-15, if necessary.

Related party transactions – Shared Facilities and Services Agreement - As more fully described in Note 4 to our consolidated financial statements included elsewhere in this Report, Lineage provided us with the use of Lineage facilities and services under a Shared Facilities and Services Agreement (the "Shared Facilities Agreement"). Accordingly, Lineage allocated expenses such as salaries and payroll related expenses incurred and paid on our behalf based on the amount of time that particular employees devote to AgeX affairs. Other expenses such as legal, accounting and financial reporting, marketing, and travel expenses were allocated to us to the extent that those expenses were incurred by or on behalf of AgeX. Lineage also allocated certain overhead expenses such as rent and utilities, property taxes, insurance, laboratory expenses and supplies, telecommunications and other indirect expenses. These allocations were made based upon activity-based allocation drivers such as time spent, percentage of square feet of office or laboratory space used, headcount and percentage of personnel devoted to our operations or management. Management evaluated the appropriateness of the allocations on a periodic basis and believes that this basis for allocation was reasonable. The Shared Facilities Agreement terminated on September 30, 2019 and Lineage will not be providing us with further services or use of its facilities.

Related party transactions - allocated expenses from Lineage – Consistent with the principles of carve-out financial statements and presentation discussed in Note 2 to our consolidated financial statements, certain expenses were allocated by Lineage and included in our consolidated statements of operations and consolidated statements of stockholders' equity as a contribution by Lineage. Research and development expenses include allocations from Lineage primarily attributable to certain former Lineage research departments contributed to us. Those expenses are primarily comprised of former Lineage personnel and related expenses, including stock-based compensation, and other outside expenses relevant to the nature of the research projects that were contributed to us pursuant to the Asset Contribution Agreement discussed in Note 4 to our consolidated financial statements included elsewhere in this Report. Management considers the allocation methodologies used to allocate expenses as reasonable and appropriate based on historical Lineage expenses attributable to us and our operations for purposes of the standalone, carve-out consolidated financial statements included elsewhere in this Report. The expenses reflected in the consolidated financial statements may not be indicative of expenses that we will incur in the future.

Research and development – Research and development expenses include both direct expenses incurred by us or our subsidiaries and indirect overhead costs allocated by Lineage that benefited or supported our research and development functions. Direct research and development expenses consist primarily of personnel costs and related benefits, including stock-based compensation, amortization of intangible assets, outside consultants and suppliers, and license fees paid to third parties to acquire patents or licenses to use patents and other technology. Direct research and development expenses also include allocations for carve-out presentation purposes from certain former Lineage research departments discussed above under *Related party transactions - allocated expenses from Lineage*. Indirect research and development expenses include overhead expenses allocated to us by Lineage discussed under *Related party transactions - Shared Facilities and Services Agreement* above. Research and development costs are expensed as incurred. Research and development expenses incurred and reimbursed by grants from third parties or governmental agencies, including service revenues from co-development projects with customers, if any and as applicable, approximate the respective revenues recognized in the consolidated statements of operations.

General and administrative – General and administrative expenses include both direct expenses incurred by us and indirect overhead costs allocated by Lineage that benefited or supported our general and administrative functions. Direct general and administrative expenses consist primarily of compensation and related benefits, including stock-based compensation, for executive and corporate personnel, and professional and consulting fees. Direct general and administrative expenses also include allocations for carve-out presentation purposes discussed above under *Related party transactions - allocated expenses from Lineage*. Indirect general and administrative expenses include overhead expenses allocated to us by Lineage discussed under *Related party transactions - Shared Facilities and Services Agreement* above.

Income taxes – For Federal and California purposes, AgeX's activity through August 30, 2018 was included in Lineage's federal consolidated and California combined tax returns. For those periods, the income tax provision was prepared in accordance with ASC 740, *Income Taxes*, using the separate return method to determine the tax provision of AgeX for carve-out presentation purposes of its consolidated financial statements. The separate return method, amongst other things, requires that the amount of current and deferred tax expense for a group that files a consolidated income tax return be allocated among the members of that group as if each group member were a separate taxpayer. As a result, the provision for income taxes has been presented as if AgeX had filed a separate federal consolidated tax return and a California combined tax return for the periods presented. In using the separate return method, the sum of the amounts allocated to the members of the income tax return group may not equal the consolidated amount. If tax attributes recorded in the carve-out consolidated financial statements are materially different from the actual tax attributes pertaining to us or our legal entities and our subsidiaries, or to Lineage and its subsidiaries, those differences are identified and disclosed in Note 7 to our consolidated financial statements included elsewhere in the Report. Accordingly, depending on our future legal structure and related tax elections that may be taken by us, our effective tax rate in future years could vary materially from our historical effective tax rates. The historical deferred tax assets, including the operating losses and credit carryforwards generated by certain research and development departments that operated within Lineage and were transferred to us on August 17, 2017, have been presented as our tax attributes consistent with the principles of the separate return method described above.

As of December 31, 2019, the deferred tax assets and liabilities presented in Note 7 included elsewhere in this Report, including net operating loss carryforwards and research and development credits, represent the tax attributes of AgeX and its subsidiaries. However, the net operating losses and research and development credits generated before August 17, 2017 with respect to Lineage research departments that were transferred to us on that date will remain as tax attributes of Lineage.

In general, net operating losses and other tax credit carryforwards generated by legal entities in a consolidated federal tax group or a combined state tax group, collectively "the tax group", are available to other members of the tax group depending on the nature of the transaction that a member may enter into while still in the tax group. However, under the Tax Matters Agreement between Lineage and AgeX entered into on August 17, 2017, any use of a member's net operating loss and other tax credit carryforwards by the other member is subject to reimbursement by the benefiting member for the actual tax benefit realized. Since the August 30, 2018 deconsolidation of AgeX and to date, neither Lineage nor AgeX has used the tax attributes of the other.

We account for income taxes in accordance with ASC 740, which prescribes the use of the asset and liability method, whereby deferred tax asset or liability account balances are calculated at the balance sheet date using current tax laws and enacted rates in effect. Valuation allowances are established when necessary to reduce deferred tax assets when it is more likely than not that a portion or all of the deferred tax assets will not be realized. Our judgments, estimates and projections regarding future taxable income may change over time due to changes, among other factors, in market conditions, changes in tax laws, and tax planning strategies. If our assumptions and consequently our estimates change in the future, the valuation allowance may be increased or decreased, which may have a material impact on our consolidated financial statements.

The guidance also prescribes a recognition threshold and a measurement attribute for the financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. For those benefits to be recognized, a tax position must be more-likely-than-not sustainable upon examination by taxing authorities. We recognize accrued interest and penalties related to unrecognized tax benefits as income tax expense. No amounts were accrued for the payment of interest and penalties as of December 31, 2019 and 2018. We do not expect that the total amount of unrecognized tax benefits will materially change over the next twelve months. We are currently unaware of any tax issues under review.

On December 22, 2017, the United States enacted major federal tax reform legislation, Public Law No. 115-97, commonly referred to as the 2017 Tax Cuts and Jobs Act ("2017 Tax Act"), which enacted a broad range of changes to the Internal Revenue Code. Changes to taxes on corporations impacted by the 2017 Tax Act include, but not limited to, lowering the U.S. federal tax rates to a 21 percent flat tax rate, eliminating the corporate alternative minimum tax ("AMT"), imposing additional limitations on the deductibility of interest and net operating losses, allowing any net operating loss ("NOLs") generated in tax years ending after December 31, 2017 to be carried forward indefinitely and generally repealing carrybacks, reducing the maximum deduction for NOL carryforwards arising in tax years beginning after 2017 to a percentage of the taxpayer's taxable income, and allowing for additional expensing of certain capital expenditures. The 2017 Tax Act also puts into effect a number of changes impacting operations outside of the United States including, but not limited to, the imposition of a one-time tax "deemed repatriation" on accumulated offshore earnings not previously subject to U.S. tax, and shifts the U.S taxation of multinational corporations from a worldwide system of taxation to a territorial system. ASC 740 requires the effects of changes in tax rates and laws on deferred tax balances (including the effects of the one-time transition tax) to be recognized in the period in which the legislation is enacted.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 ("SAB 118") to provide guidance for companies that are not able to complete their accounting for the income tax effects of the 2017 Tax Act in the period of enactment. SAB 118 allows us to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. We applied the guidance in SAB 118 when accounting for the enactment-date effects of the 2017 Tax Act during the year ended December 31, 2018. As of December 31, 2018, we completed the accounting for all the enactment-date income tax effects of the 2017 Tax Act as further discussed in Note 7 to our consolidated financial statements included elsewhere in this Report.

Stock-based compensation – We recognize compensation expense related to employee stock option grants and other equity based awards, if any, in accordance with FASB ASC 718, *Compensation – Stock Compensation* ("ASC 718").

We use the Black-Scholes option pricing model for estimating the fair value of options granted under our 2017 Equity Incentive Plan (the "Plan"). The fair value of each restricted stock or restricted stock unit grant, if any, is determined based on the value of the common stock granted or sold. We have elected to treat stock-based awards with time-based service conditions as a single award and recognize stock-based compensation on a straight-line basis over the requisite service period.

Compensation expense for non-employee stock-based awards is recognized in accordance with ASC 718. Stock option awards issued to non-employees, principally consultants or outside contractors, as applicable, are accounted for at fair value using the Black-Scholes option pricing model. Management believes that the fair value of the stock options can more reliably be measured than the fair value of services received. We record compensation expense based on the then-current fair values of the stock options at the grant date in accordance with ASU 2018-07, *Compensation – Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting*, which simplifies the accounting for non-employee share-based payment transactions. We adopted ASU 2018-07 on January 1, 2019. As we had one stock option grant issued to a nonemployee as of the adoption date and one additional stock option grant during 2019 to the same nonemployee, the application of the new standard did not have a material impact on our consolidated financial statements. Compensation expense for non-employee grants is recorded on a straight-line basis in the consolidated statements of operations.

The Black-Scholes option pricing model requires us to make certain assumptions including the fair value of the underlying common stock, the expected term, the expected volatility, the risk-free interest rate and the dividend yield.

The fair value of the shares of common stock underlying the stock options has historically been determined by our Board of Directors. Because there was no public market for our common stock prior to November 29, 2018, our Board of Directors determined the fair value of the common stock at the time of the grant of options prior to that date by considering a number of objective and subjective factors including contemporaneous sales of our common stock to investors, valuation of comparable companies, operating and financial performance and general and industry-specific economic outlook, amongst other factors. The fair value was determined in accordance with applicable elements of the practice aid issued by the American Institute of Certified Public Accountants titled *Valuation of Privately Held Company Equity Securities Issued as Compensation*. Since our common stock began publicly trading on the NYSE American, the fair value of our common stock underlying stock options has been valued based on prevailing market prices.

The expected term of employee stock options represents the weighted-average period that the stock options are expected to remain outstanding. We estimate the expected term of options granted based upon the "simplified method" provided under *Staff Accounting Bulletin, Topic 14*, or SAB Topic 14.

Because our common stock had no publicly traded history prior to November 29, 2018, for the year ended December 31, 2019 and 2018, we estimated the expected volatility using our own stock price volatility to the extent applicable or a combination of our stock price volatility and the stock price volatility of peer companies, for a period equal to the expected term of the options. The peer companies used include selected public companies within the biotechnology industry with comparable characteristics to AgeX, including similarity in size, lines of business, market capitalization, revenue and financial leverage.

The risk-free interest rate assumption is based upon observed interest rates on the United States government securities appropriate for the expected term of our stock options.

The dividend yield assumption is based on our history and expectation of dividend payouts. We have never declared or paid any cash dividends on our common stock, and we do not anticipate paying any cash dividends in the foreseeable future.

All excess tax benefits and tax deficiencies from stock-based compensation awards accounted for under ASC 718 are recognized as an income tax benefit or expense, respectively, in the consolidated statements of operations. An excess income tax benefit arises when the tax deduction of a share-based award for income tax purposes exceeds the compensation cost recognized for financial reporting purposes, and a tax deficiency arises when the compensation cost exceeds the tax deduction.

Stock-based compensation expense for the years ended December 31, 2019 and 2018 consists of stock-based compensation under the AgeX 2017 Equity Incentive Plan, and stock-based compensation of AgeX's subsidiaries that have their own stock option plans.

Certain of our consolidated subsidiaries have their own share-based compensation plans. For share-based compensation awards granted by those privately-held consolidated subsidiaries under their respective equity plans, we determine the fair value of the options granted under those plans using similar methodologies and assumptions we used for our stock options discussed above.

Although the fair value of stock options is determined in accordance with FASB guidance, changes in the assumptions and allocations can materially affect the estimated value and therefore the amount of compensation expense recognized in the consolidated financial statements.

Long-lived intangible assets – Long-lived intangible assets, consisting primarily of acquired patents, acquired in-process research and development ("IPR&D") with alternative future uses, patent applications, and licenses to use certain patents, are stated at acquired cost, less accumulated amortization. Amortization expense is computed using the straight-line method over the estimated useful lives of the assets, generally over 10 years.

Impairment of long-lived assets – Long-lived assets, including long-lived intangible assets, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be fully recoverable. If an impairment indicator is present, we evaluate recoverability by a comparison of the carrying amount of the assets to future undiscounted net cash flows expected to be generated by the assets. If the assets are impaired, the impairment recognized is measured by the amount by which the carrying amount exceeds the estimated fair value of the assets. Through December 31, 2019, there have been no such impairment losses.

Revenue recognition – During the first quarter of 2018, we adopted FASB *ASU 2014-09, Revenues from Contracts with Customers (Topic 606)*, which created a single, principle-based revenue recognition model that supersedes and replaces nearly all existing U.S. GAAP revenue recognition guidance. We adopted ASU 2014-09 using the modified retrospective transition method applied to those contracts which were not completed as of the adoption date. Results for reporting periods beginning on January 1, 2018 and thereafter are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with our historical revenue recognition accounting under Topic 605.

We recognize revenue in a manner that depicts the transfer of control of a product or a service to a customer and reflects the amount of the consideration it expects to receive in exchange for such product or service. In doing so, We follow a five-step approach: (i) identify the contract with a customer, (ii) identify the performance obligations in the contract, (iii) determine the transaction price, (iv) allocate the transaction price to the performance obligations, and (v) recognize revenue when (or as) the customer obtains control of the product or service. We consider the terms of a contract and all relevant facts and circumstances when applying the revenue recognition standard. We apply the revenue recognition standard, including the use of any practical expedients, consistently to contracts with similar characteristics and in similar circumstances.

On January 1, 2018, the impact of the adoption and application of Topic 606 was immaterial, and no cumulative effect adjustment was made as of that date. In the applicable paragraphs below, we have summarized our revenue recognition policies for various revenue sources in accordance with Topic 606.

Subscription and advertisement revenues. LifeMap Sciences sells subscription-based products, including research databases and software tools, for biomedical, gene, and disease research. LifeMap Sciences sells these subscriptions primarily through the internet to biotech and pharmaceutical companies worldwide. LifeMap Sciences' principal subscription product is the GeneCards® Suite, which includes the GeneCards® human gene database, and the MalaCards™ human disease database.

LifeMap Sciences' performance obligations for subscriptions include a license of intellectual property related to its genetic information packages and premium genetic information tools. These licenses are deemed functional licenses that provide customers with a "right to access" to LifeMap Sciences' intellectual property during the subscription period and, accordingly, revenue is recognized over a period of time, which is generally the subscription period. Payments are typically received at the beginning of a subscription period and revenue is recognized according to the type of subscription sold.

For subscription contracts in which the subscription term commences before a payment is due, LifeMap Sciences records an accounts receivable as the subscription is earned over time and bills the customer according to the contract terms. LifeMap Sciences continuously monitors collections and payments from customers and maintains a provision for estimated credit losses and uncollectible accounts based upon its historical experience and any specific customer collection issues that have been identified. Amounts determined to be uncollectible are written off against the allowance for doubtful accounts. LifeMap Sciences has not historically provided significant discounts, credits, concessions, or other incentives from the stated price in the contract as the prices are offered on a fixed fee basis for the type of subscription package being purchased. LifeMap Sciences may issue refunds only if the packages cease to be available for reasons beyond its control. In such an event, the customer will get a refund on a pro-rata basis. Both the customer and LifeMap Sciences expect the subscription packages to be available during the entire subscription period, and LifeMap Sciences has not experienced any significant issues with the availability of the product and has not issued any material refunds. Using the most likely amount method for estimating refunds under Topic 606, including historical experience, LifeMap Sciences determined that the single most likely amount of variable consideration for refunds is immaterial as LifeMap Sciences does not expect to pay any refunds.

LifeMap Sciences' performance obligations for advertising are overall advertising services and represent a series of distinct services. Contracts are typically less than a year in duration and the fees charged may include a combination of fixed and variable fees with the variable fees tied to click throughs to the customer's products on their website. LifeMap Sciences allocates the variable consideration to each month the click through services occur and allocates the annual fee to the performance obligation period of the initial term of the contract because those amounts correspond to the value provided to the customer each month. For click-through advertising services, at the time the variable compensation is known and determinable, the service has been rendered. Revenue is recognized at that time. The annual fee is recognized over the initial subscription period because this is a service and the customers simultaneously receive and consume during the period of the subscription.

LifeMap Sciences' deferred subscription revenues primarily represent subscriptions for which cash payment has been received for the subscription term, but the subscription term has not been completed as of the balance sheet date reported. For the years ended December 31, 2019 and 2018, LifeMap Sciences recognized $1.3 million and $1.2 million, respectively, in subscription and advertisement revenues. As of December 31, 2019, there was $0.3 million included in deferred revenues in the consolidated balance sheets which is expected to be recognized as subscription revenue over the next twelve months.

LifeMap Sciences has licensed from third parties the databases and software it commercializes and has a contractual obligation to pay royalties to the licensor on subscriptions sold. These costs are included in cost of sales on the consolidated statements of operations when the cash is received and the royalty obligation is incurred as the royalty payments do not qualify for capitalization of costs to fulfill a contract under ASC 340-40, *Other Assets and Deferred Costs - Contracts with Customers*.

Grant revenues. In applying the provisions of Topic 606, we have determined that government grants are out of the scope of Topic 606 because the government entities do not meet the definition of a "customer", as defined by Topic 606, as there is not considered to be a transfer of control of good or services to the government entities funding the grant. We account for grants received to perform research and development services in accordance with ASC 730-20, *Research and Development Arrangements*, which requires an assessment, at the inception of the grant, of whether the grant is a liability or a contract to perform research and development services for others. If we or a subsidiary receiving the grant is obligated to repay the grant funds to the grantor regardless of the outcome of the research and development activities, then we are required to estimate and recognize that liability. Alternatively, if we or a subsidiary receiving the grant is not required to repay, or if it is required to repay the grant funds only if the research and development activities are successful, then the grant agreement is accounted for as a contract to perform research and development services for others, in which case, grant revenue is recognized when the related research and development expenses are incurred.

In September 2018, we were awarded a grant of up to approximately $225,000 from the National Institutes of Health (NIH). The NIH grant provides funding for continued development of our technologies for treating osteoporosis. The grant funds will be made available by the NIH as allowable expenses are incurred. For the years ended December 31, 2019 and 2018, we incurred approximately $180,000 and $20,000, respectively, of allowable expenses under the NIH grant and recognized a corresponding amount of grant revenues.

Arrangements with multiple performance obligations. Future contracts with customers may include multiple performance obligations. For such arrangements, we will allocate revenue to each performance obligation based on its relative standalone selling price. We generally determines or estimates standalone selling prices based on the prices charged, or that would be charged, to customers for that product or service. As of and for the year ended December 31, 2019, we did not have significant arrangements with multiple performance obligations.

Financial Operations Overview

To date, our revenues have been principally derived from subscription and advertising revenues from LifeMap Sciences' online databases based upon applicable subscription or advertising periods. We do not have any products approved for sale and have not generated any revenue from commercialized product sales, and we do not expect to generate any revenue from product sales for the foreseeable future.

Our operating expenses consist of research and development expenses primarily from our pre-clinical programs and general and administrative expenses. If we determine to borrow more than $500,000 under the New Loan Agreement with Juvenescence, we will be required to implement a Restructuring Plan during April 2020 to reduce spending on employee salaries and consulting fees to a degree that will result in large staff reductions which may be coupled with salary reductions for certain employees who agree to a pay reduction in order to remain employed. Management believes that implementing such a Restructuring Plan would likely require the elimination a portion of our management and administrative personnel and most of our research personnel, which in turn would mean that we would cease development of some or all of our product candidates or technologies unless research and development work could be contracted out to third party service providers within the newly imposed budgetary constraints. Accordingly, the historical amounts of revenues and expense presented and discussed in this Report are likely not going to be indicative of revenues and expenses during future periods.

Results of Operations

Comparison of Years Ended December 31, 2019 and 2018

Revenues and Cost of Sales

The amounts in the table below show our consolidated revenues by source and cost of sales for the years ended December 31, 2019 and 2018 (in thousands).

	Year Ended December 31,		$ Increase/	% Increase
	2019	2018	(Decrease)	(Decrease)
Subscription and advertising revenues	$ 1,332	$ 1,227	$ 105	8.6%
Grant revenues	180	20	160	*%
Other revenues	216	149	67	45.0%
Total revenues	1,728	1,396	332	23.8%
Cost of sales	(244)	(364)	(120)	(33.0)%
Gross profit	$ 1,484	$ 1,032	$ 452	43.8%

* Not meaningful.

Our revenues were primarily generated by LifeMap Sciences, as subscription and advertising revenues from its GeneCards® online database. Subscription and advertising revenues amounted to $1.3 million and $1.2 million for the years ended December 31, 2019 and 2018.

We recognized income of approximately $180,000 during 2019 and approximately $20,000 during 2018 from a grant from the NIH. Other revenues of $216,000 and $149,000 for the years ended December 31, 2019 and 2018, respectively, were generated entirely from non-recurring services associated with LifeMap Sciences' online database business primarily related to its GeneCards®.

Cost of sales for the year ended December 31, 2019 as compared to 2018 decreased primarily due to decrease royalty payments made or incurred by LifeMap Sciences due to a change in the applicable royalty fee terms from a percentage of net collections from customers to a fixed annual fee effective January 1, 2019.

Operating Expenses

The following table shows our consolidated operating expenses for the years ended December 31, 2019 and 2018 (in thousands).

	Year Ended December 31,		$ Increase/	% Increase/
	2019	2018	(Decrease)	(Decrease)
Research and development expenses	$ 5,904	$ 5,830	$ 74	1.3%
Acquired in-process research and development	-	800	(800)	*%
General and administrative expenses	8,139	5,647	2,492	44.1%

* Not meaningful.

Research and development expenses

Research and development expenses and acquired IPR&D decreased by $0.7 million to $5.9 million in 2019 as compared to $6.6 million in 2018. The decrease was primarily attributable to the non-recurrence of in-process research and development expense of $0.8 million that was incurred during March 2018 in connection with the purchase of certain assets from Ascendance Biotechnology, Inc. ("Ascendance") primarily related to stem cell derived cardiomyocytes (heart muscle cells) to be developed by us. Additionally, consulting, outside research and services allocable to research and development expenses decreased by $0.3 million, and shared services from Lineage decreased by $0.5 million with the termination of the Shared Facilities Agreement on September 30, 2019. These decreases were offset to some extent by increases of $0.3 million in rent and facilities related expenses allocable to research and development, $0.3 million in laboratory expense and supplies, $0.2 million in personnel and related expenses allocable to research and development, and $0.1 million in amortization and depreciation expenses.

The following table shows the amounts and percentages of our total research and development expenses, including acquired in-process research and development incurred during 2018, allocated to our primary research and development programs, during the years ended December 31, 2019 and 2018, respectively (amounts in thousands).

		Year Ended December 31,			
		Amount[(1)]		Percent of Total	
Company	Program	2019	2018	2019	2018
AgeX including ReCyte Therapeutics	PureStem® progenitor cell lines, brown adipose fat, iTR technology, and pre-clinical cardiovascular therapy research and development	$ 4,496	$ 4,343	76.2%	65.5%
AgeX	Acquired in-process research and development	-	800	-%	12.1%
LifeMap Sciences [(2)]	Biomedical, gene, and disease databases and tools	1,408	1,487	23.8%	22.4%
Total research and development expenses and acquired IPR&D		$ 5,904	$ 6,630	100.0%	100.0%

(1) Amount includes research and development expenses incurred both directly by us or the named subsidiary and indirect overhead costs allocated by Lineage that benefit or support our research and development programs. See Notes 2 and 4 to our consolidated financial statements included elsewhere in this Report.

(2) See Notes 2 and 4 to our consolidated financial statements included elsewhere in this Report.

General and administrative expenses

The following table shows the amount and percentages of our consolidated general and administrative expenses incurred during the years ended December 31, 2019 and 2018, respectively (amounts in thousands).

	Year Ended December 31,			
	Amount [1]		Percent of Total	
Company	2019	2018	2019	2018
AgeX including ReCyte Therapeutics	$ 7,305	$ 4,803	89.8%	85.1%
LifeMap Sciences [2]	834	844	10.2%	14.9%
Total general and administrative expenses	$ 8,139	$ 5,647	100.0%	100.0%

(1) Amount includes both direct expenses incurred by us or the named subsidiary and indirect overhead costs allocated by Lineage that benefit or support our general and administrative functions. See Notes 2 and 4 to our consolidated financial statements included in this Report.

(2) See Notes 2 and 4 to our consolidated financial statements included in this Report.

General and administrative expenses for the year ended December 31, 2019 increased by $2.5 million to $8.1 million as compared to $5.6 million in 2018. This increase was primarily attributable to the following: $1.0 million in professional fees for consulting and accounting services; $0.8 million in insurance premiums; $0.5 million of noncash stock-based compensation expense; $0.2 million in license and patent related expenses; $0.2 million in general office, rent and facilities related expenses; $0.1 million in rent and facilities related expenses allocable to general and administrative; and $0.1 million in director fees. These increases were offset to some extent by decreases of $0.2 million in investor and public relations related expenses and $0.2 million in shared services from Lineage with the termination of the Shared Facilities Agreement on September 30, 2019.

Other income, net

Other income, net, in 2019 and 2018 consist primarily of net foreign currency transaction gains and losses recognized by LifeMap Sciences for intercompany payables and receivables denominated in currency other than United States dollars, gain on disposition of assets, and interest income and interest expense, net.

Gain on sale of equity method investment in Ascendance

On March 23, 2018, Ascendance, a company in which we held shares of common stock accounted for on the equity method, was acquired by a third party in a merger and we received $3.2 million in cash for our Ascendance common stock. We recognized a gain on sale for the same amount included in other income, net, during the year ended December 31, 2018. We recognized an additional $354,000 on sale of our Ascendance common stock for the year ended December 31, 2019 when we received a final payment for our Ascendance common stock during 2019.

Income taxes

For Federal and California purposes, our activity through August 30, 2018 was included in Lineage's federal consolidated and California combined tax returns. For the year ended December 31, 2019, the provision for income taxes has been presented on a separate federal consolidated tax return and a California combined tax return using the separate return method, as we will file separately from Lineage for periods after August 30, 2018, the date in which Lineage deconsolidated AgeX as discussed in Note 7 to our consolidated financial statements included elsewhere in this Report.

Beginning in 2018, the 2017 Tax Act subjects a U.S. stockholder to tax on Global Intangible Low Tax Income "GILTI" earned by certain foreign subsidiaries. In general, GILTI is the excess of a U.S. shareholder's total net foreign income over a deemed return on tangible assets. The provision further allows a deduction of 50% of GILTI, however this deduction is limited to the company's pre-GILTI U.S. income. For the year ended December 31, 2018, we included an immaterial amount of GILTI in U.S. gross income related to LifeMap Sciences, Ltd., which was fully offset by current year operating losses. For the year ended December 31, 2019, our foreign income inclusion was less than the deemed return on tangible assets, therefore no GILTI was included in income for 2019. Current interpretations under ASC 740 state that an entity can make an accounting policy election to either recognize deferred taxes for temporary basis differences expected to reverse as GILTI in future years or to provide for the tax expense related to GILTI in the year the tax is incurred as a period expense. We have elected to account for GILTI as a current period expense when incurred.

For the year ended December 31, 2019, we experienced a domestic loss from continuing operations but generated foreign income attributable primarily to foreign currency transaction gains for those periods. This income was principally related to the remeasurement of the U.S. dollar denominated intercompany advances payable by LifeMap Sciences, Ltd. to LifeMap Sciences, Inc., for which a foreign income tax provision of $148,000 was recorded for the year ended December 31, 2019. Due to losses incurred for 2019, we did not record a domestic provision or benefit for income taxes for the year ended December 31, 2019.

As of December 31, 2019, we had net operating loss carryforwards of approximately $42.0 million for U.S. federal income tax purposes. Of this amount, $10.1 million is attributable to LifeMap Sciences, which includes $3.6 million in NOLs generated while it was included in the consolidated Lineage tax group and would be available to offset income of AgeX in the future. The remaining LifeMap Sciences NOLs of $6.5 million are attributable to NOLs generated for the tax years during which LifeMap Sciences filed a separate federal income tax return and, accordingly, those NOLs are available only to LifeMap Sciences' taxable income within AgeX in future years. In general, NOLs and other tax credit carryforwards generated by legal entities in a consolidated federal tax group are available to other members of the tax group depending on the nature of the transaction that a member may enter into while still in the consolidated federal tax group. However, under the Tax Matters Agreement between Lineage and AgeX, any use of a member's NOLs and other tax credit carryforwards by the other member is subject to reimbursement by the benefiting member for the actual tax benefit realized. Since the August 30, 2018 deconsolidation of AgeX, and to date, neither Lineage nor AgeX has used the tax attributes of the other.

As of December 31, 2019, we had net operating losses of approximately $36.1 million for California purposes. As we and our subsidiaries have been included in the combined California tax return with Lineage, up to the date of deconsolidation on August 30, 2018, those state net operating losses will remain with AgeX.

Federal net operating losses generated on or prior to December 31, 2017, expire in varying amounts between 2028 and 2037, while federal net operating losses generated after December 31, 2017, carryforward indefinitely. The state net operating losses expire in varying amounts between 2028 and 2039.

As of December 31, 2019, AgeX had research and development tax credit carryforwards for federal and state tax purposes of $1.1 million and $957,000, respectively. Although this LifeMap Sciences credit has been included as part of the AgeX credit carryforwards, LifeMap Sciences filed a separate federal income tax return prior to January 1, 2018 and its prior research credit carryforwards may not be used to offset federal taxable income of AgeX. As AgeX and its subsidiaries were included in the California combined return with Lineage, these credits noted above will remain with AgeX. The federal tax credits expire between 2028 and 2039, while the state tax credits have no expiration date.

A valuation allowance is provided when it is more likely than not that some or all of the deferred tax assets will not be realized. We established a full valuation allowance for all periods presented due to the uncertainty of realizing future tax benefits from our net operating loss carryforwards and other deferred tax assets.

Liquidity and Capital Resources

Operating Losses and Going Concern Considerations

We have incurred operating losses and negative cash flows since inception and had an accumulated deficit of $86.2 million as of December 31, 2019. We expect to continue to incur operating losses and negative cash flows.

We have made certain adjustments to our operating plans and budgets to reduce our projected cash expenditures in order to extend the period over which we can continue our operations with our available cash resources. Some of these adjustments entail the deferral of certain work on the development of our product candidates and technologies, which is likely to delay our progress in those research and development efforts. However, notwithstanding those adjustments, based on our most recent projected cash flows, our cash and cash equivalents and potential additional loans that may become available to us from Juvenescence under the Secured Convertible Facility Agreement (the "New Loan Agreement") discussed in Note 9 to our consolidated financial statements included elsewhere in this Report, would not be sufficient to satisfy our anticipated operating and other funding requirements for the next twelve months from the date of filing of this Report. These factors raise substantial doubt regarding our ability to continue as a going concern. See Notes 4 and 9 to our consolidated financial statements included elsewhere in this Report for additional information about our loan agreements with Juvenescence. We will need to raise additional capital in the near term to be able to meet our operating expenses. If we are unable to raise capital promptly when needed, we would be forced to delay, reduce or eliminate our operations, including our research and development programs.

While we expect to borrow an initial $500,000 under the New Loan Agreement, all additional loans to us from Juvenescence under the New Loan Agreement are subject to Juvenescence's discretion, and accordingly there is no assurance that we will be able to borrow additional funds under the New Loan Agreement when we need funding for our operations. The New Loan Agreement prohibits us and our subsidiaries ReCyte Therapeutics and Reverse Bio from borrowing funds or engaging in certain other transactions without the consent of Juvenescence unless we repay all amounts owed to Juvenescence under the New Loan Agreement and the $2 million we owe under the August 2019 Loan Facility Agreement discussed in Note 4 to our consolidated financial statements. The implementation of a Restructuring Plan under the terms of the New Loan Agreement could require AgeX to make significant changes to its operations and research and development plans. The New Loan Agreement also requires AgeX and the Guarantor Subsidiaries to grant Juvenescence a security interest and lien on substantially all of our respective assets if AgeX makes more than two draws of funds (generally meaning if AgeX borrows more than $1,000,000). These factors and the impact of dilution through the issuance of shares of our common stock and warrants under other provisions of the New Loan Agreement could make AgeX less attractive to new equity investors and could impair our ability to finance our operations or the operations of our subsidiaries unless Juvenescence agrees, in its discretion, to lend us funds under the New Loan Agreement. We do not have any other committed sources of funds for additional financing.

To the extent that we are able to raise additional capital from sources other than the New Loan Agreement, such as through the sale of AgeX equity or convertible debt securities or the sale of equity or convertible debt securities of any of our subsidiaries, the ownership interest of our present stockholders will be diluted, and the terms of any securities we or our subsidiaries issue may include liquidation or other preferences that adversely affect the rights of our common stockholders. Additional debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends, and may involve the issuance of convertible debt or stock purchase warrants that would dilute the equity interests of our stockholders. The New Loan Agreement requires us to issue shares of our common stock and common stock purchase

warrants to Juvenescence in total amounts that will vary depending on the amount of funds we borrow, the market price of our common stock, and in the case of issuances of common stock, whether Juvenescence elects to convert any portion of the outstanding loan balance into common stock. See “Risk Factors” and Note 9 to our consolidated financial statements. If we raise funds through additional strategic partnerships or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us.

Cash used in operating activities

For the year ended December 31, 2019, our total research and development expenses were $5.9 million and our general and administrative expenditures were $8.1 million. Net loss attributable to us for the year ended December 31, 2019 amounted to $12.2 million. Net cash used in operating activities during this period amounted to $10.2 million. The difference between the net loss attributable to us and net cash used in operating activities during the year ended December 31, 2019 was primarily attributable to the following noncash items: $1.9 million in stock-based compensation expense, $1.0 million in depreciation and amortization, and $0.1 million foreign currency remeasurement. These non-cash amounts were partially offset by $0.6 million in insurance premium liability, $0.4 million we received as a final payment for our Ascendance common stock sold in 2018, and $0.2 million in net loss attributable to noncontrolling interest. Changes in working capital also provided $0.1 million from operating activities.

Cash used in investing activities

During the year ended December 31, 2019, net cash used in investing activities was $0.4 million, which was attributable to $0.7 million paid for the purchase of equipment, construction at our new office and laboratory facility, and a security deposit under the lease of our new office and research facility, offset by a $0.4 final payment received for the sale of our Ascendance common stock in 2018.

Cash provided by financing activities

During the year ended December 31, 2019, net cash provided by financing activities amounted to $6.3 million, which was attributable to $4.5 million of proceeds received from the exercise of warrants to purchase 1,800,000 shares of AgeX common stock, and $1.8 million drawn from the $2.0 million loan facility provided by Juvenescence.

Off-Balance Sheet Arrangements

As of December 31, 2019, we did not have any off-balance sheet arrangements, as defined in Item 303(a) (4) (ii) of SEC Regulation S-K.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Not applicable.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Stockholders and Board of Directors
AgeX Therapeutics, Inc.
Alameda, California

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of AgeX Therapeutics, Inc. (the "Company") as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the two years in the period ended December 31, 2019, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2019**,** in conformity with accounting principles generally accepted in the United States of America.

Going Concern Uncertainty

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1, the Company has had recurring losses and negative operating cash flows since inception, an accumulated deficit at December 31, 2019, and insufficient cash and cash equivalents and loan proceeds at December 31, 2019 to fund operations for twelve months from the date of issuance. All of these matters raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

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

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

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

/s/ OUM & CO. LLP

San Francisco, California
March 30, 2020
We have served as the Company's auditor since 2017.

Item 8. Financial Statements and Supplementary Data

AGEX THERAPEUTICS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(*In thousands, except par value amounts*)

	December 31,	
	2019	**2018**
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$ 2,352	$ 6,707
Accounts and grants receivable, net	363	131
Prepaid expenses and other current assets	1,339	1,015
Total current assets	4,054	7,853
Property and equipment, net	1,126	90
Deposits and other long-term assets	111	19
Intangible assets, net	2,151	2,709
TOTAL ASSETS	$ 7,442	$ 10,671
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts payable and accrued liabilities	$ 1,582	$ 1,366
Related party payables, net	64	132
Deferred revenues	283	317
Right-of-use lease liability	428	-
Insurance premium liability and other current liabilities	940	625
Total current liabilities	3,297	2,440
Loan due to Juvenescence, net of debt issuance cost	1,528	-
TOTAL LIABILITIES	4,825	2,440
Commitments and contingencies (Note 8)		
STOCKHOLDERS' EQUITY		
Preferred stock, $0.0001 par value, authorized 5,000 shares; none issued and outstanding as of December 31, 2019 and 2018	-	-
Common stock, $0.0001 par value, 100,000 shares authorized; 37,649 and 35,830 shares issued and outstanding as of December 31, 2019 and 2018, respectively	4	4
Additional paid-in capital	88,353	81,499
Accumulated other comprehensive income (loss)	69	(2)
Accumulated deficit	(86,208)	(74,054)
AgeX Therapeutics, Inc. stockholders' equity	2,218	7,447
Noncontrolling interest	399	784
Total stockholders' equity	2,617	8,231
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 7,442	$ 10,671

See accompanying notes to the consolidated financial statements.

AGEX THERAPEUTICS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share data)

	Year Ended December 31,	
	2019	**2018**
REVENUES:		
Subscription and advertisement revenues	$ 1,332	$ 1,227
Grant revenues	180	20
Other revenues	216	149
Total revenues	1,728	1,396
Cost of sales	(244)	(364)
Gross profit	1,484	1,032
OPERATING EXPENSES:		
Research and development	5,904	5,830
Acquired in-process research and development	-	800
General and administrative	8,139	5,647
Total operating expenses	14,043	12,277
Loss from operations	(12,559)	(11,245)
OTHER INCOME, NET:		
Interest income, net	29	116
Gain on sale of equity method investment in Ascendance	-	3,215
Other income, net	294	183
Total other income, net	323	3,514
NET LOSS BEFORE INCOME TAXES	(12,236)	(7,731)
Income tax provision	(148)	-
NET LOSS	(12,384)	(7,731)
Net loss attributable to noncontrolling interest	230	229
NET LOSS ATTRIBUTABLE TO AGEX	$ (12,154)	$ (7,502)
NET LOSS PER COMMON SHARE:		
BASIC AND DILUTED	$ (0.33)	$ (0.21)
WEIGHTED AVERAGE NUMBER OF COMMON SHARES OUTSTANDING:		
BASIC AND DILUTED	37,271	34,914

See accompanying notes to the consolidated financial statements.

AGEX THERAPEUTICS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(In thousands)

	Year Ended December 31,	
	2019	**2018**
NET LOSS	$ (12,384)	$ (7,731)
Other comprehensive income/(expense), net of tax:		
Foreign currency translation adjustments	71	(70)
COMPREHENSIVE LOSS	(12,313)	(7,801)
Less: Comprehensive loss attributable to noncontrolling interest	230	229
COMPREHENSIVE LOSS ATTRIBUTABLE TO AGEX COMMON STOCKHOLDERS	$ (12,083)	$ (7,572)

See accompanying notes to the consolidated financial statements.

AGEX THERAPEUTICS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands)

	Common Stock		Additional			Accumulated Other	Total
	Number of Shares	Par Value	Paid-In Capital	Accumulated Deficit	Noncontrolling Interest	Comprehensive Income/(Loss)	Stockholders' Equity
BALANCE AT DECEMBER 31, 2017	33,750	$ 3	$ 73,761	$ (66,552)	$ 1,039	$ 68	$ 8,319
Issuance of shares	2,000	1	4,999	-	-	-	5,000
Issuance of shares to acquire in-process research and development	80	-	240	-	-	-	240
Sale of warrants	-	-	1,000	-	-	-	1,000
Stock-based compensation	-	-	1,285	-	-	-	1,285
Stock-based compensation allocated from Lineage	-	-	184	-	-	-	184
Stock-based compensation in subsidiaries	-	-	-	-	4	-	4
Transactions with noncontrolling interests	-	-	30	-	(30)	-	-
Foreign currency translation adjustment	-	-	-	-	-	(70)	(70)
Net loss	-	-	-	(7,502)	(229)	-	(7,731)
BALANCE AT DECEMBER 31, 2018	35,830	$ 4	$ 81,499	$ (74,054)	$ 784	$ (2)	$ 8,231
Issuance of common stock from exercise of warrants	1,800	-	4,500	-	-	-	4,500
Issuance of common stock to Juvenescence	19	-	56	-	-	-	56
Issuance of warrants to Juvenescence	-	-	236	-	-	-	236
Stock-based compensation	-	-	1,907	-	-	-	1,907
Lapse of subsidiary options	-	-	155	-	(155)	-	-
Foreign currency translation adjustment	-	-	-	-	-	71	71
Net loss	-	-	-	(12,154)	(230)	-	(12,384)
BALANCE AT DECEMBER 31, 2019	37,649	$ 4	$ 88,353	$ (86,208)	$ 399	$ 69	$ 2,617

See accompanying notes to the consolidated financial statements.

AGEX THERAPEUTICS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,	
	2019	**2018**
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss attributable to AgeX	$ (12,154)	$ (7,502)
Net loss attributable to noncontrolling interest	(230)	(229)
Adjustments to reconcile net loss attributable to AgeX to net cash used in operating activities:		
Gain on sale of equity method investment in Ascendance	(354)	(3,215)
Acquired in-process research and development	-	800
Depreciation expense	91	58
Amortization of intangible assets	558	477
Amortization of right-of-use asset	302	-
Amortization of debt issuance cost	54	-
Stock-based compensation	1,907	1,285
Stock-based compensation allocated from Lineage	-	184
Subsidiary stock-based compensation	-	4
Foreign currency remeasurement gain (loss) and other	76	(68)
Changes in operating assets and liabilities:		
Accounts receivable and other receivables	(232)	(24)
Prepaid expenses and other current assets	473	(219)
Accounts payable and accrued liabilities	169	648
Related party payables	(68)	(128)
Insurance premium liability	(599)	(74)
Deferred revenues	(34)	137
Other current liabilities	(119)	(129)
Net cash used in operating activities	(10,160)	(7,995)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Proceeds from the sale of equity method investment in Ascendance	354	3,215
Purchase of in-process research and development	-	(1,872)
Security deposit (paid) received and other, net	(74)	5
Purchase of equipment and other	(641)	(21)
Net cash (used in) provided by investing activities	(361)	1,327
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from issuance of common stock	-	5,000
Proceeds from sale of warrants	-	1,000
Proceeds from exercise of warrants	4,500	-
Draw down on loan facility from Juvenescence	1,800	-
Repayment of financing liability	(35)	-
Net cash provided by financing activities	6,265	6,000
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	1	-
NET INCREASE IN CASH, CASH EQUIVALENTS AND RESTRICTED CASH	(4,255)	(668)
CASH, CASH EQUIVALENTS AND RESTRICTED CASH:		
Beginning of year	6,707	7,375
End of year	$ 2,452	$ 6,707
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:		
Cash paid during the year for interest	$ 12	$ 11
SUPPLEMENTAL SCHEDULE OF NONCASH FINANCING AND INVESTING ACTIVITIES:		
Issuance of common stock to Juvenescence (Note 4)	$ 56	$ -
Issuance of warrants to Juvenescence (Note 4)	$ 236	$ -
Issuance of common stock for acquired in-process research and development	$ -	$ 240

See accompanying notes to the consolidated financial statements.

1. Organization, Basis of Presentation and Liquidity

AgeX Therapeutics, Inc. ("AgeX") was incorporated in January 2017 in the state of Delaware as a subsidiary of Lineage Cell Therapeutics, Inc. ("Lineage," formerly known as BioTime, Inc.), a publicly traded, clinical-stage biotechnology company.

AgeX is a biotechnology company focused on the development and commercialization of novel therapeutics targeting human aging and degenerative diseases. AgeX's initial discovery and pre-clinical programs focus on utilizing brown adipose tissue ("brown fat") in targeting diabetes, obesity, and heart disease; and induced tissue regeneration ("iTR") in utilizing the human body's own abilities to scarlessly regenerate tissue damaged from age or trauma. AgeX may also pursue other early-stage pre-clinical programs. AgeX is an "emerging growth company" as defined in the Jumpstart our Business Startups Act of 2012.

Lineage's sale of significant ownership interest in AgeX to Juvenescence – On August 30, 2018, Lineage consummated the sale of 14,400,000 shares of common stock of AgeX owned by Lineage to Juvenescence Limited ("Juvenescence"). Prior to the transaction, Juvenescence owned 5.6% of AgeX's issued and outstanding common stock. Upon completion of the transaction, Lineage's ownership in AgeX was reduced from 80.4% to 40.2% of AgeX's issued and outstanding shares of common stock, and Juvenescence's ownership in AgeX was increased from 5.6% to 45.8% of AgeX's issued and outstanding shares of common stock. AgeX did not receive any proceeds from the transaction. As a result of that transaction, AgeX ceased to be a subsidiary of Lineage because Lineage experienced a "loss of control" of a subsidiary, as defined by generally accepted accounting principles in the U.S. ("GAAP"). Loss of control is deemed to have occurred when, among other things, a parent company owns less than a majority of the outstanding common stock in the subsidiary, lacks a controlling financial interest in the subsidiary and, is unable to unilaterally control the subsidiary through other means such as having, or being able to obtain, the power to elect a majority of the subsidiary's Board of Directors based solely on contractual rights or ownership of shares holding a majority of the voting power of the subsidiary's voting securities. All of these loss-of-control factors were present with respect to Lineage's ownership interest in AgeX as of August 30, 2018. Accordingly, Lineage deconsolidated AgeX's consolidated financial statements and results from its consolidated financial statements and results beginning on August 30, 2018.

On November 28, 2018 (the "Distribution Date"), Lineage distributed to its shareholders, on a pro rata basis, 12,697,028 shares of the AgeX common stock it then held (the "Distribution"). Immediately after the Distribution, Lineage retained 1,718,972 shares of AgeX common stock, representing approximately 4.8% of the common stock then issued and outstanding. Following the Distribution, AgeX common stock began publicly trading on the NYSE American under the symbol "AGE" (see Notes 4, 7 and 9).

Going Concern and Liquidity – Since inception, AgeX has financed its operations through contributions and advances from its former parent company, Lineage, the sale of its common stock and warrants, exercises of warrants (see Notes 4 and 5), a loan facility from Juvenescence, and research grants. Lineage provided AgeX with the use of Lineage facilities and services under a Shared Facilities and Services Agreement (the "Shared Facilities Agreement") through September 30, 2019, as described in Note 4. AgeX has incurred operating losses and negative cash flows since inception and had an accumulated deficit of $86.2 million as of December 31, 2019. AgeX expects to continue to incur operating losses and negative cash flows.

AgeX has made certain adjustments to its operating plans and budgets to reduce its projected cash expenditures in order to extend the period over which it can continue its operations with its available cash resources. Some of these adjustments will entail the deferral of certain work on the development of AgeX's product candidates and technologies, which is likely to delay progress in those research and development efforts. Notwithstanding those adjustments, based on AgeX's most recent projected cash flows AgeX believes that its cash and cash equivalents of $2.4 million as of December 31, 2019 and the remaining $0.2 million that AgeX subsequently drew under the loan facility from Juvenescence discussed in Note 4, plus the loan facility by Juvenescence to advance up to $8.0 million to AgeX for operating capital discussed in Note 9, would not be sufficient to satisfy AgeX's anticipated operating and other funding requirements for the next twelve months from the issuance of these consolidated financial statements. These conditions raise substantial doubt about AgeX's ability to continue as a going concern. AgeX will need to obtain substantial additional funding in connection with its continuing operations after that date. If AgeX is unable to raise capital when needed, AgeX would be forced to further delay, reduce or eliminate its research and development programs.

Basis of presentation – For periods prior to August 30, 2018, Lineage consolidated the results of AgeX and AgeX's subsidiaries into Lineage's consolidated results based on Lineage's ability to control AgeX's operating and financial decisions and policies through the majority ownership of AgeX common stock throughout the periods presented. As discussed above, beginning on August 30, 2018, Lineage deconsolidated AgeX's consolidated financial statements and results from its consolidated financial statements and results.

The consolidated financial statements of AgeX are presented in accordance with U.S. generally accepted accounting principles ("GAAP").

Through September 30, 2019, to the extent AgeX did not have its own employees or facilities for its operations, Lineage or Lineage commonly controlled and consolidated subsidiaries provided certain employees for administrative or operational services, including laboratory space and administrative facilities, as necessary, for the benefit of AgeX, under the Shared Facilities Agreement. Lineage allocated expenses such as salaries and payroll related expenses incurred and paid on behalf of AgeX based on the amount of time that particular employees devoted to AgeX affairs. Other expenses such as legal, accounting and financial reporting, marketing, and travel expenses were allocated to AgeX to the extent that those expenses were incurred by or on behalf of AgeX. Lineage also allocated certain overhead expenses such as rent and utilities, property taxes, insurance, laboratory expenses and supplies, telecommunications and other indirect expenses. These allocations were made based upon activity-based allocation drivers such as time spent, percentage of square feet of office or laboratory space used, headcount and percentage of personnel devoted to AgeX's operations or management. Management evaluated the appropriateness of the allocations on a periodic basis and believes that this basis for allocation was reasonable. AgeX terminated the Shared Facilities Agreement effective September 30, 2019.

Principles of consolidation – AgeX's consolidated financial statements include the accounts of its subsidiaries and certain research and development departments, including former Lineage personnel, transferred from Lineage to AgeX in connection with the Asset Contribution Agreement (see Note 4). AgeX consolidated its direct and indirect wholly-owned or majority-owned subsidiaries because AgeX has the ability to control their operating and financial decisions and policies through its ownership, and the noncontrolling interest is reflected as a separate element of stockholders' equity on AgeX's consolidated balance sheets.

As of and for the years ended December 31, 2019 and 2018, AgeX consolidated ReCyte Therapeutics, Inc. ("ReCyte Therapeutics"), LifeMap Sciences, Inc. ("LifeMap Sciences"), and LifeMap Sciences, Ltd. (Israel) and included the historical expenses of certain former Lineage research and development departments (see Note 4).

As of and for the year ended December 31, 2019, AgeX consolidated the following subsidiaries:

Subsidiary	Field of Business	AgeX Ownership	Country
ReCyte Therapeutics	Early stage pre-clinical research and development involved in stem cell-derived endothelial and cardiovascular related progenitor cells for the treatment of vascular disorders, and ischemic conditions	94.8%	USA
LifeMap Sciences(1)	Biomedical, gene and disease databases and tools	81.7%	USA

(1) LifeMap Sciences includes LifeMap Sciences, Inc. and its wholly-owned subsidiary LifeMap Sciences, Ltd. an Israeli company.

All material intercompany accounts and transactions between AgeX and its subsidiaries have been eliminated in consolidation.

Use of estimates – The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period with consideration given to materiality. Significant estimates and assumptions which are subject to significant judgment include those related to going concern assessment of consolidated financial statements, allocations and adjustments necessary for carve-out basis of presentation, including the separate return method for income taxes, useful lives associated with long-lived assets, including evaluation of asset impairment, allowances for uncollectible accounts receivables, loss contingencies, deferred income taxes and tax reserves, including valuation allowances related to deferred income taxes, and assumptions used to value stock-based awards or other equity instruments. Actual results could differ materially from those estimates. To the extent there are material differences between the estimates and actual results, AgeX's future results of operations will be affected.

Reclassifications – A reclassification was made from amounts included in accounts payable and accrued liabilities to related party payables, net, on the consolidated balance sheet and from the prepaid expenses and other current assets related to insurance premium liabilities on the consolidated statement of cash flows as of December 31, 2018 to conform and be comparable to the presentation on the consolidated balance sheet and consolidated statement of cash flows as of December 31, 2019. The reclassifications had no effect on net earnings or cash flows as previously reported.

2. Summary of Significant Accounting Policies

Going concern assessment – AgeX assesses going concern uncertainty for its consolidated financial statements to determine if AgeX has sufficient cash and cash equivalents on hand and working capital to operate for a period of at least one year from the date the consolidated financial statements are issued or are available to be issued, which is referred to as the "look-forward period" as defined by Financial Accounting Standard Board's ("FASB") ASU No. 2014-15. As part of this assessment, based on conditions that are known and reasonably knowable to AgeX, AgeX will consider various scenarios, forecasts, projections, and estimates, and AgeX will make certain key assumptions, including the timing and nature of projected cash expenditures or programs, and its ability to delay or curtail those expenditures or programs, if necessary, among other factors. Based on this assessment, as necessary or applicable, AgeX makes certain assumptions concerning its ability to curtail or delay research and development programs and expenditures within the look-forward period in accordance with ASU No. 2014-15.

Cash and cash equivalents – AgeX considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents. As of December 31, 2019 and 2018, AgeX's cash balances totaled $2.4 million and $6.7 million, respectively, and consist entirely of bank account deposits and amounts held in money market funds.

Concentrations of credit risk – Financial instruments that potentially subject AgeX to significant concentrations of credit risk consist primarily of cash and cash equivalents. AgeX limits the amount of credit exposure of cash balances by maintaining its accounts in high credit quality financial institutions. Cash equivalent deposits with financial institutions may occasionally exceed the limits of insurance on bank deposits; however, AgeX has not experienced any losses on such accounts.

Fair value measurements – Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. To increase the comparability of fair value measures, the following hierarchy prioritizes the inputs to valuation methodologies used to measure fair value (ASC 820-10-50), *Fair Value Measurements and Disclosures*:

- Level 1 – Inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.
- Level 2 – Inputs to the valuation methodology include quoted prices for similar assets or liabilities in active markets, and inputs that are observable for the assets or liabilities, either directly or indirectly, for substantially the full term of the financial instruments.
- Level 3 – Inputs to the valuation methodology are unobservable; that reflect management's own assumptions about the assumptions market participants would make and significant to the fair value.

In determining fair value, AgeX utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible, and also considers counterparty credit risk in its assessment of fair value. For the periods presented, AgeX has no financial assets or liabilities recorded at fair value on a recurring basis, except for cash and cash equivalents primarily consisting of money market funds. These assets are measured at fair value using the period-end quoted market prices as a Level 1 input.

The carrying amounts of accounts receivable, net, prepaid expenses and other current assets, related party amounts due to affiliates, accounts payable, accrued liabilities and other current liabilities approximate fair values because of the short-term nature of these items.

Accounts receivable, net – AgeX establishes an allowance for doubtful accounts based on the evaluation of the collectability of its receivables after considering a variety of factors, including the length of time receivables are past due, significant events that may impair the customer's ability to pay, such as a bankruptcy filing or deterioration in the customer's operating results or financial position, and historical experience. If circumstances related to customers change, estimates of the recoverability of receivables would be further adjusted. For subscription contracts in which the subscription term commences before a payment is due, LifeMap Sciences records an accounts receivable as the subscription is earned over time and bills the customer according to the contract terms. LifeMap Sciences continuously monitors collections and payments from customers and maintains a provision for estimated credit losses and uncollectible accounts based upon its historical experience and any specific customer collection issues that have been identified. Amounts determined to be uncollectible are written off against the allowance for doubtful accounts. Accounts receivable, net, include allowance for doubtful accounts of approximately $321,000 as of December 31, 2019 and 2018, for those amounts deemed uncollectible by AgeX or LifeMap Sciences.

Equipment and furniture, net – Equipment and furniture is stated at cost and is being depreciated using the straight-line method over their estimated useful lives ranging from 3 to 10 years. Maintenance and repairs are expensed as incurred whereas significant renewals and betterments are capitalized. When assets are retired or otherwise disposed of, the cost and the related accumulated depreciation are removed from the respective accounts and any resulting gain or loss is reflected in AgeX's results of operations.

Long-lived intangible assets – Long-lived intangible assets, consisting primarily of acquired patents, patent applications, and licenses to use certain patents, including acquired in-process research and development ("IPR&D") with alternative future uses, are stated at acquired cost, less accumulated amortization (see Note 3). Amortization expense is computed using the straight-line method over the estimated useful lives of the assets, generally over 10 years.

Impairment of long-lived assets – Long-lived assets, including long-lived intangible assets, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be fully recoverable. If an impairment indicator is present, AgeX evaluates recoverability by a comparison of the carrying amount of the assets to future undiscounted net cash flows expected to be generated by the assets. If the assets are impaired, the impairment recognized is measured by the amount by which the carrying amount exceeds the estimated fair value of the assets. Through 2019, there have been no impairment losses.

Transactions with noncontrolling interests of subsidiaries – AgeX accounts for a change in ownership interests in its subsidiaries that does not result in a change of control of the subsidiary under the provisions of ASC 810-10-45-23, *Consolidation – Other Presentation Matters,* which prescribes the accounting for changes in ownership interest that do not result in a change in control of the subsidiary, as defined by GAAP, before and after the transaction. Under this guidance, changes in a controlling stockholder's ownership interest that do not result in a change of control, as defined by GAAP, in the subsidiary are accounted for as equity transactions. Accordingly, if the controlling stockholder retains control, no gain or loss is recognized in the statements of operations of the controlling stockholder. Similarly, the controlling stockholder will not record any additional acquisition adjustments to reflect its subsequent purchases of additional shares in the subsidiary if there is no change of control. Only a proportional and immediate transfer of carrying value between the controlling and the noncontrolling stockholders occurs based on the respective ownership percentages.

Research and development – Research and development expenses include both direct expenses incurred by AgeX or its subsidiaries and indirect overhead costs allocated by Lineage that benefit or support AgeX's research and development functions. Direct research and development expenses consist primarily of personnel costs and related benefits, including stock-based compensation, amortization of intangible assets, outside consultants and suppliers, and license fees paid to third parties to acquire patents or licenses to use patents and other technology. Indirect research and development expenses allocated by Lineage to AgeX under the Shared Facilities Agreement (see Note 4), were primarily based on headcount or space occupied, as applicable, and included laboratory supplies, laboratory expenses, rent and utilities, common area maintenance, telecommunications, property taxes and insurance. Research and development expenses incurred and reimbursed by grants from third parties or governmental agencies, including service revenues from co-development projects with customers, if any and as applicable, approximate the respective revenues recognized in the consolidated statements of operations.

General and administrative – General and administrative expenses include both direct expenses incurred by AgeX and indirect overhead costs allocated by Lineage that benefit or support AgeX's general and administrative functions. Direct general and administrative expenses consist primarily of compensation and related benefits, including stock-based compensation, for executive and corporate personnel, and professional and consulting fees. Indirect general and administrative expenses allocated by Lineage to AgeX under the Shared Facilities Agreement (see Note 4) were primarily based on headcount or space occupied, as applicable, and included costs for financial reporting and compliance, rent and utilities, common area maintenance, telecommunications, property taxes and insurance.

Foreign currency translation and other comprehensive income or loss, foreign currency transaction gains and losses – In countries in which AgeX operates where the functional currency is other than the U.S. dollar, assets and liabilities are translated using published exchange rates in effect at the consolidated balance sheet date. Revenues and expenses and cash flows are translated using an approximate weighted average exchange rate for the period. Resulting foreign currency translation adjustments are recorded as other comprehensive income or loss, net of tax, in the consolidated statements of comprehensive income or loss and included as a component of accumulated other comprehensive income or loss on the consolidated balance sheets. Foreign currency translation adjustments are immaterial for all periods presented.

For transactions denominated in other than the functional currency of AgeX or its subsidiaries, AgeX recognizes transaction gains and losses in the consolidated statements of operations and classifies the gain or loss based on the nature of the item that generated it. The majority of AgeX's foreign currency transaction gains and losses were generated by LifeMap Sciences Ltd.'s intercompany payable due to LifeMap Sciences**,** Inc., which are U.S. dollar-denominated, while LifeMap Sciences Ltd.'s functional currency is the Israeli New Shekel ("NIS"). Accordingly, foreign currency remeasurement gains and losses related to this intercompany payable are included in other income, net.

Income taxes – For Federal and California purposes, AgeX's activity through August 30, 2018 was included in Lineage's federal consolidated and California combined tax returns. For this period, the income tax provision was prepared in accordance with ASC 740, *Income Taxes*, using the separate return method to determine the tax provision of AgeX for carve-out presentation purposes of its consolidated financial statements. The separate return method, among other items, requires that the amount of current and deferred tax expense for a group that files a consolidated income tax return be allocated among the members of that group as if each group member were a separate taxpayer. As a result, the provision for income taxes has been presented as if AgeX had filed a separate federal consolidated tax return and a California combined tax return for those periods. In using the separate return method, the sum of the amounts allocated to the members of the income tax return group may not equal the consolidated amount. If tax attributes recorded in the carve-out consolidated financial statements are materially different from the actual tax attributes pertaining to the legal entities of AgeX and its subsidiaries, or to Lineage and its subsidiaries, those differences are identified and disclosed in Note 7. Accordingly, depending on the future legal structure of AgeX and related tax elections that may be taken by AgeX, the effective tax rate of AgeX in future years could vary materially from its historical effective tax rates. The historical deferred tax assets, including the operating losses and credit carryforwards generated by certain research and development departments that operated within Lineage and were transferred to AgeX on August 17, 2017 (Note 4), have been presented as tax attributes of AgeX consistent with the principles of the separate return method described above. As of December 31, 2019, the deferred tax assets and liabilities presented in Note 7, including net operating loss carryforwards and research and development credits, represent the tax attributes of the AgeX and its subsidiaries.

However, the net operating losses and research and development credits generated before August 17, 2017, the contribution date to AgeX, will remain as tax attributes of Lineage (see Note 7). In general, net operating losses and other tax credit carryforwards generated by legal entities in a consolidated federal tax group or a combined state tax group, collectively "the tax group", are available to other members of the tax group depending on the nature of the transaction that a member may enter into while still in the tax group. However, under the Tax Matters Agreement between Lineage and AgeX entered into on August 17, 2017, any use of a member's net operating loss and other tax credit carryforwards by the other member is subject to reimbursement by the benefiting member for the actual tax benefit realized. Since the August 30, 2018 deconsolidation of AgeX and to date, neither Lineage nor AgeX has used the tax attributes of the other.

AgeX accounts for income taxes in accordance with ASC 740, which prescribes the use of the asset and liability method, whereby deferred tax asset or liability account balances are calculated at the balance sheet date using current tax laws and enacted rates in effect. Valuation allowances are established when necessary to reduce deferred tax assets when it is more likely than not that a portion or all of the deferred tax assets will not be realized. AgeX's judgments, estimates and projections regarding future taxable income may change over time due to changes, among other factors, in market conditions, changes in tax laws, and tax planning strategies. If AgeX's assumptions and consequently its estimates change in the future, the valuation allowance may be increased or decreased, which may have a material impact on AgeX's consolidated financial statements.

The guidance also prescribes a recognition threshold and a measurement attribute for the financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. For those benefits to be recognized, a tax position must be more-likely-than-not sustainable upon examination by taxing authorities. AgeX recognizes accrued interest and penalties related to unrecognized tax benefits as income tax expense. No amounts were accrued for the payment of interest and penalties as of December 31, 2019 and 2018. AgeX does not expect that the total amount of unrecognized tax benefits will materially change over the next twelve months. AgeX is currently unaware of any tax issues under review.

On December 22, 2017, the United States enacted major federal tax reform legislation, Public Law No. 115-97, commonly referred to as the 2017 Tax Cuts and Jobs Act ("2017 Tax Act"), which enacted a broad range of changes to the Internal Revenue Code. Changes to taxes on corporations impacted by the 2017 Tax Act include, but not limited to, lowering the U.S. federal tax rates to a 21% flat tax rate, eliminating the corporate alternative minimum tax ("AMT"), imposing additional limitations on the deductibility of interest and net operating losses, allowing any net operating loss ("NOLs") generated in tax years ending after December 31, 2017 to be carried forward indefinitely and generally repealing carrybacks, reducing the maximum deduction for NOL carryforwards arising in tax years beginning after 2017 to a percentage of the taxpayer's taxable income, and allowing for additional expensing of certain capital expenditures. The 2017 Tax Act also puts into effect a number of changes impacting operations outside of the United States including, but not limited to, the imposition of a one-time tax "deemed repatriation" on accumulated offshore earnings not previously subject to U.S. tax, and shifts the U.S taxation of multinational corporations from a worldwide system of taxation to a territorial system. ASC 740 requires the effects of changes in tax rates and laws on deferred tax balances (including the effects of the one-time transition tax) to be recognized in the period in which the legislation is enacted (see Note 7).

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 ("SAB 118") to provide guidance for companies that are not able to complete their accounting for the income tax effects of the 2017 Tax Act in the period of enactment. SAB 118 allows AgeX to record provisional amounts during a measurement period not to extend beyond one year of the enactment date (see Note 7). AgeX applied the guidance in SAB 118 when accounting for the enactment-date effects of the 2017 Tax Act during the year ended December 31, 2018. As of December 31, 2018, AgeX completed its accounting for all the enactment-date income tax effects of the 2017 Tax Act further discussed in Note 7.

Beginning in 2018, the 2017 Tax Act subjects a U.S. stockholder to tax on Global Intangible Low Tax Income (GILTI) earned by certain foreign subsidiaries. In general, GILTI is the excess of a U.S. shareholder's total net foreign income over a deemed return on tangible assets. The provision further allows a deduction of 50% of GILTI, however this deduction is limited by the company's pre-GILTI U.S. income. For 2018, AgeX included an immaterial amount of GILTI in U.S. gross income related to LifeMap Sciences, Ltd., which was fully offset by current year operating losses. For the year ended December 31, 2019, our foreign income inclusion was less than the deemed return on tangible assets, therefore no GILTI was included in income for 2019. Current interpretations under ASC 740 state that an entity can make an accounting policy election to either recognize deferred taxes for temporary basis differences expected to reverse as GILTI in future years or to provide for the tax expense related to GILTI in the year the tax is incurred as a period expense. AgeX has elected to account for GILTI as a current period expense when incurred.

Stock-based compensation – AgeX recognizes compensation expense related to employee option grants and restricted stock grants, if any, in accordance with FASB ASC 718, *Compensation – Stock Compensation* ("ASC 718").

AgeX estimates the fair value of employee stock-based payment awards on the grant-date and recognizes the resulting fair value, net of estimated forfeitures for grants prior to 2017, over the requisite service period. Upon adoption of Accounting Standards Update ("ASU") 2016-09 on January 1, 2017 as further discussed below, forfeitures are accounted for as they occur instead of based on the number of awards that were expected to vest prior to adoption of ASU 2016-09.

AgeX uses the Black-Scholes option pricing model for estimating the fair value of options granted under AgeX's 2017 Equity Incentive Plan (the "Plan"). The fair value of each restricted stock grant, if any, is determined based on the value of the common stock granted or sold. AgeX has elected to treat stock-based payment awards with time-based service conditions as a single award and recognizes stock-based compensation on a straight-line basis over the requisite service period.

Compensation expense for non-employee stock-based awards is recognized in accordance with ASC 718 (see *Recently adopted accounting pronouncements below*). Stock option awards issued to non-employees, principally consultants or outside contractors, as applicable, are accounted for at fair value using the Black-Scholes option pricing model. Management believes that the fair value of the stock options can more reliably be measured than the fair value of services received. AgeX records compensation expense based on the then-current fair values of the stock options at the grant date. Compensation expense for non-employee grants is recorded on a straight-line basis in the consolidated statements of operations.

The Black-Scholes option pricing model requires AgeX to make certain assumptions including the fair value of the underlying common stock, the expected term, the expected volatility, the risk-free interest rate and the dividend yield (see Note 6).

The fair value of the shares of common stock underlying the stock options has historically been determined by the Board of Directors. Because there was no public market for AgeX's common stock prior to November 29, 2018, the Board of Directors determined the fair value of the common stock at the time of the grant of options prior to that date by considering a number of objective and subjective factors including contemporaneous sales of common stock to investors, valuation of comparable companies, operating and financial performance and general and industry-specific economic outlook, amongst other factors. The fair value was determined in accordance with applicable elements of the practice aid issued by the American Institute of Certified Public Accountants titled *Valuation of Privately Held Company Equity Securities Issued as Compensation*. Since our common stock began publicly trading on the NYSE American, the fair value of our common stock underlying stock options has been valued based on prevailing market prices.

The expected term of employee stock options represents the weighted-average period that the stock options are expected to remain outstanding. AgeX estimates the expected term of options granted using the "simplified method" provided under *Staff Accounting Bulletin, Topic 14*, or SAB Topic 14.

Because AgeX's common stock had no publicly traded history prior to November 29, 2018, for the years ended December 31, 2019 and 2018, AgeX estimated the expected volatility using its own stock price volatility to the extent applicable or a combination of its stock price volatility and the stock price volatility of peer companies, for a period equal to the expected term of the options. The peer companies used include selected public companies within the biotechnology industry with comparable characteristics to AgeX, including similarity in size, lines of business, market capitalization, revenue and financial leverage.

The risk-free interest rate assumption is based upon observed interest rates on the United States government securities appropriate for the expected term of AgeX's stock options.

The dividend yield assumption is based on AgeX's history and expectation of dividend payouts. AgeX has never declared or paid any cash dividends on its common stock, and AgeX does not anticipate paying any cash dividends in the foreseeable future.

All excess tax benefits and tax deficiencies from stock-based compensation awards accounted for under ASC 718 are recognized as an income tax benefit or expense, respectively, in the consolidated statements of operations. An excess income tax benefit arises when the tax deduction of a share-based award for income tax purposes exceeds the compensation cost recognized for financial reporting purposes and, a tax deficiency arises when the compensation cost exceeds the tax deduction.

Stock-based compensation expense for the years ended December 31, 2019 and 2018 consists of stock-based compensation under the AgeX 2017 Equity Incentive Plan (Note 6) and stock-based compensation of AgeX's subsidiaries that have their own stock option plans.

As discussed above, certain of AgeX's consolidated subsidiaries have their own share-based compensation plans. For share-based compensation awards granted by those privately-held consolidated subsidiaries under their respective equity plans, AgeX determines the fair value of the options granted under those plans using similar methodologies and assumptions AgeX used for its stock options discussed above.

Although the fair value of stock options is determined in accordance with FASB guidance, changes in the assumptions and allocations can materially affect the estimated value and therefore the amount of compensation expense recognized in the consolidated financial statements.

Segments – AgeX's executive management team, as a group, represents the entity's chief operating decision makers. To date, AgeX's executive management team has viewed AgeX's operations as one segment that includes the research and development of regenerative medicine technologies targeting the diseases of aging and metabolic disorders, oncology, and neurological diseases and disorders, blood and vascular system diseases and disorders, and pluripotent cell technologies. As a result, the financial information disclosed materially represents all of the financial information related to AgeX's sole operating segment.

Basic and diluted net loss per share attributable to common stockholders – Basic loss per share is calculated by dividing net loss attributable to AgeX common stockholders by the weighted average number of shares of common stock outstanding, net of unvested restricted stock or restricted stock units, subject to repurchase by AgeX, if any, during the period. Diluted loss per share is calculated by dividing the net income attributable to AgeX common stockholders, if any, by the weighted average number of shares of common stock outstanding, adjusted for the effects of potentially dilutive common stock issuable under outstanding stock options, warrants, and restricted stock units, using the treasury-stock method, and convertible preferred stock, if any, using the if-converted method, and treasury stock held by subsidiaries, if any.

For the years ended December 31, 2019 and 2018, because AgeX reported a net loss attributable to common stockholders, all potentially dilutive common stock, comprised of stock options, restricted stock units and warrants, is antidilutive.

The following weighted average common stock equivalents were excluded from the computation of diluted net loss per share of common stock for the periods presented because including them would have been antidilutive (in thousands):

	Year Ended December 31,	
	2019	**2018**
Stock options	2,735	2,269
Warrants	58	2,000
Restricted stock units	41	-

Revenue recognition

During the first quarter of 2018, AgeX adopted FASB *ASU 2014-09, Revenues from Contracts with Customers (Topic 606)*, which created a single, principle-based revenue recognition model that supersedes and replaces nearly all existing U.S. GAAP revenue recognition guidance. AgeX adopted ASU 2014-09 using the modified retrospective transition method applied to those contracts which were not completed as of the adoption date. Results for reporting periods beginning on January 1, 2018 and thereafter are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with AgeX's historical revenue recognition accounting under Topic 605. AgeX's largest source of revenue is currently sourced from subscription and advertising revenues generated by its majority-owned subsidiary, LifeMap Sciences.

AgeX recognizes revenue in a manner that depicts the transfer of control of a product or a service to a customer and reflects the amount of the consideration it expects to receive in exchange for such product or service. In doing so, AgeX follows a five-step approach: (i) identify the contract with a customer, (ii) identify the performance obligations in the contract, (iii) determine the transaction price, (iv) allocate the transaction price to the performance obligations, and (v) recognize revenue when (or as) the customer obtains control of the product or service. AgeX considers the terms of a contract and all relevant facts and circumstances when applying the revenue recognition standard. AgeX applies the revenue recognition standard, including the use of any practical expedients, consistently to contracts with similar characteristics and in similar circumstances.

On January 1, 2018, the impact of the adoption and application of Topic 606 was immaterial, and no cumulative effect adjustment was made as of that date. In the applicable paragraphs below, AgeX has summarized its revenue recognition policies for its various revenue sources in accordance with Topic 606.

Revenue recognition by source and geography. Revenues are recognized when control of the promised goods or services is transferred to customers, or in the case of governmental entities funding a grant, when allowable expenses are incurred, in an amount that reflects the consideration AgeX or a subsidiary, depending on which company has the customer or the grant, expects to be entitled to in exchange for those goods or services.

The following table presents AgeX's consolidated revenues disaggregated by source (in thousands).

	Year Ended December 31,	
REVENUES:	**2019**	**2018**
Subscription and advertisement revenues	$ 1,332	$ 1,227
Service and other revenues	216	149
Grant revenues	180	20
Total revenues	$ 1,728	$ 1,396

The following table presents consolidated revenues (in thousands), disaggregated by geography, based on the billing addresses of customers.

	Year Ended December 31,	
REVENUES:	**2019**	**2018**
United States	$ 986	$ 813
Foreign	742	583
Total revenues	$ 1,728	$ 1,396

Subscription and advertisement revenues – LifeMap Sciences sells subscription-based products, including research databases and software tools, for biomedical, gene, and disease research. LifeMap Sciences sells these subscriptions primarily through the internet to biotech and pharmaceutical companies worldwide. LifeMap Sciences' principal subscription product is the GeneCards® Suite, which includes the GeneCards® human gene database, and the MalaCards™ human disease database.

LifeMap Sciences' performance obligations for subscriptions include a license of intellectual property related to its genetic information packages and premium genetic information tools. These licenses are deemed functional licenses that provide customers with a "right to access" to LifeMap Sciences' intellectual property during the subscription period and, accordingly, revenue is recognized over a period of time, which is generally the subscription period. Payments are typically received at the beginning of a subscription period and revenue is recognized according to the type of subscription sold.

For subscription contracts in which the subscription term commences before a payment is due, LifeMap Sciences records an accounts receivable as the subscription is earned over time and bills the customer according to the contract terms. LifeMap Sciences continuously monitors collections and payments from customers and maintains a provision for estimated credit losses and uncollectible accounts based upon its historical experience and any specific customer collection issues that have been identified. Amounts determined to be uncollectible are written off against the allowance for doubtful accounts. LifeMap Sciences has not historically provided significant discounts, credits, concessions, or other incentives from the stated price in the contract as the prices are offered on a fixed fee basis for the type of subscription package being purchased. LifeMap Sciences may issue refunds only if the packages cease to be available for reasons beyond its control. In such an event, the customer will get a refund on a pro-rata basis. Both the customer and LifeMap Sciences expect the subscription packages to be available during the entire subscription period, and LifeMap Sciences has not experienced any significant issues with the availability of the product and has not issued any material refunds. Using the most likely amount method for estimating refunds under Topic 606, including historical experience, LifeMap Sciences determined that the single most likely amount of variable consideration for refunds is immaterial as LifeMap Sciences does not expect to pay any refunds.

LifeMap Sciences' performance obligations for advertising are overall advertising services and represent a series of distinct services. Contracts are typically less than a year in duration and the fees charged may include a combination of fixed and variable fees with the variable fees tied to click throughs to the customer's products on their website. LifeMap Sciences allocates the variable consideration to each month the click through services occur and allocates the annual fee to the performance obligation period of the initial term of the contract because those amounts correspond to the value provided to the customer each month. For click-through advertising services, at the time the variable compensation is known and determinable, the service has been rendered. Revenue is recognized at that time. The annual fee is recognized over the initial subscription period because this is a service and the customers simultaneously receive and consume during the period of the subscription.

LifeMap Sciences' deferred subscription revenues primarily represent subscriptions for which cash payment has been received for the subscription term, but the subscription term has not been completed as of the balance sheet date reported. For the years ended December 31, 2019 and 2018, LifeMap Sciences recognized $1.3 million and $1.2 million, respectively, in subscription and advertisement revenues. As of December 31, 2019, there was $0.3 million included in deferred revenues in the consolidated balance sheets which is expected to be recognized as subscription revenue over the next twelve months.

LifeMap Sciences has licensed from third parties the databases and software it commercializes and has a contractual obligation to pay royalties to the licensor on subscriptions sold. These costs are included in cost of sales on the consolidated statements of operations when the cash is received and the royalty obligation is incurred as the royalty payments do not qualify for capitalization of costs to fulfill a contract under ASC 340-40, *Other Assets and Deferred Costs - Contracts with Customers*.

Grant revenues – In applying the provisions of Topic 606, AgeX has determined that government grants are out of the scope of Topic 606 because the government entities do not meet the definition of a "customer", as defined by Topic 606, as there is not considered to be a transfer of control of good or services to the government entities funding the grant. AgeX accounts for grants received to perform research and development services in accordance with ASC 730-20, *Research and Development Arrangements*, which requires an assessment, at the inception of the grant, of whether the grant is a liability or a contract to perform research and development services for others. If AgeX or a subsidiary receiving the grant is obligated to repay the grant funds to the grantor regardless of the outcome of the research and development activities, then AgeX is required to estimate and recognize that liability. Alternatively, if AgeX or a subsidiary receiving the grant is not required to repay, or if it is required to repay the grant funds only if the research and development activities are successful, then the grant agreement is accounted for as a contract to perform research and development services for others, in which case, grant revenue is recognized when the related research and development expenses are incurred.

In September 2018, AgeX was awarded a grant of up to approximately $225,000 from the National Institutes of Health (NIH). The NIH grant provides funding for continued development of AgeX technologies for treating osteoporosis. The grant funds will be made available by the NIH as allowable expenses are incurred. For the years ended December 31, 2019 and 2018, AgeX incurred approximately $180,000 and $20,000, respectively, of allowable expenses under the NIH grant and recognized a corresponding amount of grant revenues.

On April 5, 2018, ReCyte Therapeutics was awarded a grant of up to approximately $386,000 from the NIH. The NIH grant provides funding for continued development of ReCyte Therapeutics' technologies for treating stroke. The grant funds will be made available by the NIH to ReCyte Therapeutics as allowable expenses are incurred. As of December 31, 2019, no allowable expenses were incurred under the NIH grant.

Arrangements with multiple performance obligations. AgeX's contracts with customers may include multiple performance obligations. For such arrangements, AgeX allocates revenue to each performance obligation based on its relative standalone selling price. AgeX generally determines or estimates standalone selling prices based on the prices charged, or that would be charged, to customers for that product or service. As of and for the year ended December 31, 2019, AgeX did not have significant arrangements with multiple performance obligations.

Recently adopted accounting pronouncements

Leases. On January 1, 2019, AgeX adopted ASU 2016-02, *Leases* (Topic 842, "ASC 842") and its subsequent amendments affecting AgeX: (i) ASU 2018-10, *Codification Improvements to Topic 842, Leases,* and (ii) ASU 2018-11, *Leases (Topic 842): Targeted improvements,* using the modified retrospective method.

AgeX management determines if an arrangement is a lease at inception. Leases are classified as either financing or operating, with classification affecting the pattern of expense recognition in the consolidated statements of operations. When determining whether a lease is a financing lease or an operating lease, ASC 842 does not specifically define criteria to determine "major part of remaining economic life of the underlying asset" and "substantially all of the fair value of the underlying asset." For lease classification determination, AgeX continues to use (i) 75% or greater to determine whether the lease term is a major part of the remaining economic life of the underlying asset and (ii) 90% or greater to determine whether the present value of the sum of lease payments is substantially all of the fair value of the underlying asset. Under the available practical expedients, and as applicable, AgeX accounts for the lease and non-lease components as a single lease component. AgeX recognizes right-of-use ("ROU") assets and lease liabilities for leases with terms greater than twelve months in the consolidated balance sheet.

ROU assets represent an entity's right to use an underlying asset during the lease term and lease liabilities represent an entity's obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. If the lease agreement does not provide an implicit rate in the contract, an entity uses its incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments. The operating lease ROU asset also includes any lease payments made and excludes lease incentives. The lease terms may include options to extend or terminate the lease when it is reasonably certain that the entity will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

Upon adoption of ASC 842 and based on the practical expedients available under that standard, AgeX did not reassess any expired or existing contracts, reassess the lease classification for any expired or existing leases and reassess initial direct costs for exiting leases. AgeX also elected not to capitalize leases that have terms of twelve months or less.

The adoption of ASC 842 had no impact on AgeX's consolidated balance sheet as of January 1, 2019, as AgeX did not have operating leases as of December 31, 2018 (see Note 8). AgeX's sublease of its current office and laboratory facility, which commenced on April 2, 2019, is subject to ASC 842. AgeX recognized its lease as a right-of-use asset included in property and equipment, net (see Note 3) and operating lease liability on its balance sheet in accordance with ASC 842 as of December 31, 2019 (see Note 8). During 2019, AgeX as a sublessor subleased portions of its office and laboratory space to certain unaffiliated third parties. These subleases are not subject to ASC 842.

Stock-based compensation. In June 2018, the FASB issued ASU 2018-07, *Compensation - Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting*, which simplifies the accounting for non-employee share-based payment transactions. The new standard expands the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from non-employees. ASU 2018-07 is effective for fiscal years beginning after December 15, 2018 (including interim periods within that fiscal year). AgeX adopted ASU 2018-07 on January 1, 2019. As AgeX had one stock option grant issued to a nonemployee as of the adoption date and one additional stock option grant during 2019 to the same nonemployee, the application of the new standard did not have a material impact on its consolidated financial statements.

Recently issued accounting pronouncements not yet adopted

The following accounting standard, which is not yet effective, is presently being evaluated by AgeX to determine the impact that it might have on its consolidated financial statements.

In December 2019, the FASB issued ASU 2019-02, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*, which modifies ASC 740 to simplify the accounting for income taxes. The new standard removes certain exceptions for recognizing deferred taxes for investments, performing intraperiod allocation and calculating income taxes in interim periods. The new standard also adds guidance to reduce complexity in certain areas, including recognizing deferred taxes for tax goodwill and allocating taxes to members of a consolidated group. ASU 2019-02 is effective for fiscal year, and interim periods within those fiscal years, beginning after December 15, 2020, with early adoption permitted. AgeX does not anticipate that the adoption of the new standard will have a material impact on its consolidated financial statements.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement*, which modifies certain disclosure requirements for reporting fair value measurements. ASU 2018-13 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. AgeX adopted this standard effective January 1, 2020 which did not have a material impact on its consolidated financial statements.

3. Selected Balance Sheet Components

Property and equipment, net

At December 31, 2019 and 2018, property and equipment was comprised of the following (in thousands):

	December 31,	
	2019	2018
Equipment, furniture and fixtures	$ 954	$ 245
Right-of-use assets[(1)]	726	-
Accumulated depreciation and amortization	(554)	(155)
Property and equipment, net	$ 1,126	$ 90

(1) AgeX adopted ASC 842 on January 1, 2019. For additional information on this standard and right-of-use assets and liabilities see Notes 2 and 8.

Depreciation and amortization expense amounted to $393,000 and $58,000 for the years ended December 31, 2019 and 2018, respectively.

Intangible assets, net

Intangible assets, net are primarily comprised of acquired licenses and other rights by LifeMap Sciences from a third party for certain databases it commercializes, which includes the GeneCards® human gene database, and the MalaCards™ human disease database. These databases are available primarily through the internet and sold as subscriptions or on a fee per use basis for use by researchers at pharmaceutical and biotechnology companies and other institutions.

On August 13, 2018, AgeX entered into an Asset Purchase Agreement (the "Purchase Agreement") with Escape Therapeutics, Inc. ("Escape") pursuant to which AgeX acquired certain patents and patent applications related primarily to methods of modifying cells and tissues and certain pluripotent stem cell lines so as to reduce their risk of being rejected when transplanted. This technology is called "UniverCyte™". AgeX paid Escape $1,072,436 in cash and issued 80,000 shares of AgeX common stock, with an approximate value of $240,000, for aggregate acquisition cost of $1.3 million for the UniverCyte™ assets. The Purchase Agreement was considered an asset acquisition rather than a business combination in accordance with ASC 805-50, *Business Combinations*.

ASC 730-10-25(c), *Research and Development – Intangible Assets Purchased from Others*, provides guidance for acquisition and capitalization of the cost of intangible assets purchased from others in an asset acquisition that have alternative future uses in other research and development projects. These intangible assets are referred to as acquired in-process research and development with alternative future uses and are accounted for as intangible assets and amortized to research and development over their useful life. Acquired IPR&D in an asset acquisition that does not have any alternative future uses is expensed under the same guidance. As an initial focus, AgeX intends to use the UniverCyte™ technology in the development of its two lead products, AGEX-BAT1 and AGEX-VASC1 for the treatment of Type II diabetes and cardiovascular aging, respectively. Accordingly, AgeX recorded the UniverCyte™ technology acquired from Escape as IPR&D intangible assets with alternative future uses in accordance with ASC 730-10-25(c) and is amortizing those assets to research and development expense over their estimated 10 year useful life.

Pursuant to the Purchase Agreement, if AgeX does not expend a certain level of funds toward the research and development of pluripotent stem cell or progenitor cell products and processes utilizing the acquired patents and the development or improvement of the acquired patents, AgeX will pay Escape additional amounts and the royalty rate for net sales of products, processes and services will be tripled until total expenditures reach the required threshold. The aggregate cash payments AgeX may make to Escape for not reaching the predetermined level of expenses can be up to $1.0 million. AgeX has met the research and development expenditure threshold for 2019 and accordingly, no amounts have been accrued as of December 31, 2019 for this provision of the Purchase Agreement.

In addition to the purchase price, AgeX will pay Escape a royalty of less than 1% on net sales of products, processes and services under the acquired patents, if the assets are commercialized. Additional shares of AgeX common stock totaling up to $4.3 million of market value will also be issued to Escape upon the attainment of development and regulatory approval milestones by AgeX for each product covered by the acquired patents. Contingent consideration in an asset acquisition is generally recorded when probable and estimable in accordance with ASC 450, *Contingencies*. Accordingly, none of the milestone payments have been accrued since the attainment of any milestone in the Purchase Agreement was not probable as of December 31, 2019.

Escape has agreed to indemnify AgeX from certain liabilities. The Purchase Agreement contains representations, warranties and agreements customary for a transaction of this nature.

AgeX has also agreed to engage Escape's chief executive officer as a consultant for a period of up to three years to assist AgeX in utilizing the acquired patents. AgeX pays $200,000 per year in consulting fees as services are performed included in research and development expenses.

At December 31, 2019 and 2018, intangible assets, primarily consisting of acquired in-process research and development and patents, and accumulated amortization were as follows (in thousands):

	December 31,	
	2019	2018
Intangible assets	$ 5,586	$ 5,586
Accumulated amortization	(3,435)	(2,877)
Intangible assets, net	$ 2,151	$ 2,709

Amortization expense amounted to $558,000 and $477,000 for the years ended December 31, 2019 and 2018, respectively.

Accounts payable and accrued liabilities

At December 31, 2019 and 2018, accounts payable and accrued liabilities were comprised of the following (in thousands):

	December 31,	
	2019	2018
Accounts payable	$ 420	$ 150
Accrued compensation	263	254
Accrued vendors and other expenses	899	962
Accounts payable and accrued liabilities	$ 1,582	$ 1,366

4. Related Party Transactions

Shared Facilities and Service Agreement

On August 17, 2017, AgeX and Lineage executed the Shared Facilities Agreement. The Shared Facilities Agreement was terminated by AgeX effective September 30, 2019. Under the terms of the Shared Facilities Agreement, Lineage agreed to permit AgeX to use Lineage's Alameda, California office and laboratory facilities and certain equipment for the purpose of conducting business. Lineage also provided accounting, billing, bookkeeping, payroll, treasury, payment of accounts payable, and other administrative services to AgeX.

Lineage charged AgeX a "Use Fee" for services received and usage of facilities, equipment, and supplies. For each billing period, Lineage prorated and allocated costs incurred as a Use Fee to AgeX. Such costs generally included services of Lineage employees, consultants, and contractors; equipment use, insurance, lease expense, fees for services of accountants, lawyers, and other professionals; software; supplies; and utilities. Allocation depended on key cost drivers including actual documented use, square footage of facilities used, time spent, costs incurred by or for AgeX, or upon proportionate usage by Lineage and AgeX, as reasonably estimated by Lineage. Lineage charged AgeX a 5% markup on such allocated costs under the terms of the Shared Facilities Agreement. The allocated cost of Lineage employees and contractors who provided services was based upon records maintained of the number of hours or percentage of time of such personnel devoted to the performance of services. The Use Fee was determined and invoiced to AgeX on a monthly basis for each calendar month of each calendar year. In addition to the Use Fees, AgeX reimbursed Lineage for any out of pocket costs incurred by Lineage for the purchase of office supplies, laboratory supplies, and other goods and materials and services for the account or use of AgeX.

The Shared Facilities Agreement was not considered a lease under the provisions of ASC 842 discussed in Note 2, because, among other factors, a significant part of the Shared Facilities Agreement is a contract for services, not a tangible asset, and is cancelable by either party without penalty.

In aggregate, Lineage charged such Use Fees to AgeX and subsidiaries as follows (in thousands):

	Year Ended December 31,	
	2019	2018
Research and development	$ 701	$ 1,278
General and administrative	239	400
Total Use Fees	$ 940	$ 1,678

AgeX has accounted for payables to an affiliate, net of receivables from that affiliate, if any, for shared services and other transactions that AgeX has entered into with that affiliate. AgeX recorded those payables and receivables on a net basis where AgeX and the affiliate intended to exercise a right of offset of the payable and the receivable and to settle the balances net by having the party that owes the other party pay the net balance owed. AgeX has treated Lineage and Juvenescence as affiliates for this purpose.

As of December 31, 2019, and 2018, AgeX had ($7,000) and $34,000, respectively, in related party (receivables from)/payables to Lineage, included in related party payables, net on the consolidated balance sheets.

Transactions with Juvenescence

On August 13, 2019, AgeX and Juvenescence entered into a Loan Facility Agreement (the "Loan Agreement") pursuant to which Juvenescence has provided to AgeX a $2.0 million line of credit for a period of 18 months. Through December 31, 2019, AgeX drew $1.8 million of the line of credit. AgeX may not draw down funds after the Repayment Date in February 2021 or if an "Event of Default" under the Loan Agreement has occurred and is continuing and AgeX may not draw down more than $700,000 during any 30 day period.

In lieu of accrued interest, AgeX issued to Juvenescence 19,000 shares of AgeX common stock, with an approximate value of $56,000, concurrently with the first draw down of funds under the Loan Agreement. However, if AgeX fails to repay the loan when due, interest at the rate of 10% per annum, compounded daily, will accrue on the unpaid balance from the date the payment was due.

In lieu of repayment of funds borrowed, AgeX or Juvenescence may convert the loan balance (including principal and accrued interest, if any) into AgeX common stock or "units" if AgeX consummates a "Qualified Offering" which means a sale of common stock (or common stock paired with warrants or other convertible securities in "units") in which the gross sale proceeds are at least $7.5 million.

Events of Default under the Loan Agreement include: (i) AgeX fails to pay any amount in the manner and at the time provided in the Loan Agreement and the failure to pay is not remedied within 10 business days; (ii) AgeX fails to perform any of its obligations under the Loan Agreement and if the failure can be remedied it is not remedied to the satisfaction of Juvenescence within 10 business days after notice to AgeX; (iii) other indebtedness for money borrowed in excess of $100,000 becomes due and payable or can be declared due and payable prior to its due date or if indebtedness for money borrowed in excess of $25,000 is not paid when due; (iv) AgeX stops payment of its debts generally or discontinues its business or becomes unable to pay its debts as they become due or enters into any arrangement with creditors generally, (v) AgeX becoming insolvent or in liquidation or administration or other insolvency procedures, or a receiver, trustee or similar officer is appointed in respect of all or any part of its assets and such appointment continues undischarged or unstayed for sixty days, (vi) it becomes illegal for AgeX to perform its obligations under the Loan Agreement or any governmental permit, license, consent, exemption or similar requirement for AgeX to perform its obligations under the Loan Agreement or to carry out its business is not obtained or ceases to remain in effect; (vii) the issuance or levy of any judgment, writ, warrant of attachment or execution or similar process against all or any material part of the property or assets of AgeX if such process is not released, vacated or fully bonded within sixty calendar days after its issue or levy; (viii) any injunction, order or judgement of any court is entered or issued which in the opinion of Juvenescence materially and adversely affects the ability of AgeX to carry out its business or to pay amounts owed to Juvenescence under the Loan Agreement, and (ix) there is a change in AgeX's financial condition that in the opinion of Juvenescence materially and adversely affects, or is likely to so affect, its ability to perform any of its obligations under the Loan Agreement.

As consideration for the line of credit under the Loan Agreement, AgeX issued to Juvenescence warrants to purchase 150,000 shares of AgeX common stock. The exercise price of the warrants is $2.60 per share, which was the volume weighted average price on the NYSE American (VWAP) of AgeX common stock over the twenty trading days prior to the date the warrants were issued. The warrants will expire at 5:00 p.m. New York time three years after the date of issue. The number of shares issuable upon exercise of the warrants and the exercise price per share are subject to adjustment upon the occurrence of certain events such as a stock split or reverse split or combination of the common stock, stock dividend, recapitalization or reclassification of the common stock, and similar events. The estimated value of these warrants was $236,000 which was determined in accordance with the Black-Scholes option pricing model with inputs as specified in the relevant warrant agreement.

AgeX has entered into a Registration Rights Agreement to use commercially reasonable efforts to register the 19,000 shares issuable under the Loan Agreement and the 150,000 warrants and underlying shares for resale under the Securities Act of 1933, as amended (the "Securities Act"), upon request of Juvenescence if Form S-3 is available to AgeX. Juvenescence will also have "piggy-back" registration rights if AgeX files a registration statement for the sale of shares for itself or other stockholders. AgeX will bear the expenses of the registration statement but not underwriting or broker's commissions related to the sale of warrants or shares. AgeX and Juvenescence will indemnify each other from certain liabilities in connection the registration, offer, and sale of securities under a registration statement, including liabilities arising under the Securities Act.

Since October 2018, AgeX's Chief Operating Officer ("COO"), who is also an employee of Juvenescence, is devoting a majority of his time to AgeX's operations. AgeX reimburses Juvenescence for his services on an agreed-upon fixed annual amount of approximately $280,000. As of December 31, 2019, AgeX had approximately $71,000 payable to Juvenescence for COO services rendered included in related party payables on the consolidated balance sheets.

Transactions with Ascendance.

On March 21, 2018, AgeX and Ascendance Biotechnology, Inc. ("Ascendance") entered into an Asset Purchase Agreement (the "Asset Agreement") in which AgeX purchased for $800,000 in cash certain assets consisting in value primarily of in-process research and development assets related to stem cell derived cardiomyocytes (heart muscle cells) to be developed by AgeX. The transaction was considered an asset acquisition rather than a business combination in accordance with ASC 805-50. The $800,000 purchase price was expensed on the acquisition date as acquired in-process research and development in accordance with ASC 730-10-25(c) as those assets have no alternative future uses.

Disposition of ownership interest in Ascendance

On March 23, 2018, Ascendance was acquired by a third party in a merger through which AgeX received approximately $3.2 million in cash for its shares of Ascendance common stock. AgeX recognized a $3.2 million gain as a sale of its equity method investment in Ascendance, which is included in other income, net, for the year ended December 31, 2018. At the close of the merger, $955,000 of cash that otherwise would have been payable to the Ascendance stockholders on a pro rata basis based on share ownership was deposited into an escrow account where it was held through the term of the escrow, which expired in June 2019. The funds were held in the escrow account to cover certain potential indemnity payments and other obligations that might arise after the merger. During 2019, the escrow funds were paid to the former Ascendance shareholders and AgeX received $354,000 as its pro rata share of the funds, as additional proceeds from the sale of the Ascendance investment included in other income, net, for the year ended December 31, 2019.

Sale and exercise of warrants by AgeX

In February 2018, AgeX sold warrants, as described in Note 5, to certain investors, including to Alfred D. Kingsley, who was at the time AgeX's Executive Chairman and the Chairman of Lineage's Board of Directors. On March 18, 2019, Mr. Kingsley purchased a total of 248,600 shares of AgeX common stock through the exercise of his warrants at an exercise price of $2.50 per share and paid a total purchase price of $621,500.

5. Stockholders' Equity

Preferred Stock

AgeX is authorized to issue up to 5,000,000 shares of $0.0001 par value preferred stock. To date, no preferred shares are issued and outstanding.

Common Stock

AgeX has 100,000,000 shares of $0.0001 par value common stock authorized. The holders of AgeX's common stock are entitled to receive ratably dividends when, as, and if declared by the Board of Directors out of funds legally available. Upon liquidation, dissolution, or winding up, the holders of AgeX common stock are entitled to receive ratably the net assets available after the payment of all debts and other liabilities and subject to the prior rights of AgeX outstanding preferred shares, if any.

The holders of common stock are entitled to one vote for each share held on all matters submitted to a vote of AgeX stockholders. The holders of common stock have no preemptive, subscription, or redemption rights. The outstanding shares of common stock are fully paid and non-assessable.

On August 17, 2017, AgeX received its initial assets and cash from Lineage and certain investors. Lineage contributed certain assets and cash to AgeX in exchange for 28,800,000 shares of AgeX common stock pursuant to the Asset Contribution Agreement discussed in Note 4. As discussed in Note 2, these 28,800,000 shares of AgeX common stock have been reflected as outstanding as of the earliest reporting period presented. Concurrently with the acquisition of assets from Lineage under the Asset Contribution Agreement, AgeX sold 4,950,000 shares of its common stock for $10.0 million in cash primarily to investors other than Lineage (see Note 4).

The AgeX shares were offered and sold without registration under the Securities Act of 1933, as amended (the "Securities Act"), in reliance on exemptions from registration under Section 4(a)(2) of the Securities Act and Rule 506 of Regulation D and Regulation S thereunder. AgeX has agreed to use commercially reasonable efforts to register the shares of AgeX common stock issued to the AgeX investors for sale under the Securities Act.

See Note 4 for Related Party Transactions with Lineage that impacted AgeX's consolidated statements of stockholders' equity for the years ended December 31, 2019 and 2018.

On June 7, 2018, AgeX sold 2.0 million shares of common stock for $2.50 per share to Juvenescence for aggregate cash proceeds to AgeX of $5.0 million.

On August 13, 2018, AgeX issued 80,000 shares with an approximate value of $240,000 as part of the consideration paid to Escape for the asset acquisition discussed in Note 3.

As of December 31, 2019 and December 31, 2018, there were 37,649,000 and 35,830,000 shares of AgeX common stock issued and outstanding, respectively.

Sale of Warrants by AgeX

On February 28, 2018, AgeX sold Warrants to purchase 1,473,600 shares of AgeX common stock for $0.50 per Warrant for aggregate cash proceeds to AgeX of $736,800, which included $124,300 from Alfred D. Kingsley, AgeX's then Executive Chairman and the Chairman of Lineage's Board of Directors. On July 10, 2018, AgeX sold additional Warrants to purchase 526,400 shares of common stock for $0.50 per warrant for aggregate net cash proceeds to AgeX of $263,200. The Warrants were exercisable at $2.50 per share. On March 18, 2019, holders of the Warrants purchased a total of 1,800,000 shares of AgeX common stock through the exercise of Warrants at an exercise price of $2.50 per share, for total proceeds to AgeX of $4.5 million. Any unexercised Warrants expired on that date.

On August 13, 2019, in lieu of accrued interest under the Loan Agreement, AgeX issued to Juvenescence 19,000 shares of AgeX common stock concurrently with the first draw down of funds. Furthermore, as consideration for the line of credit under the Loan Agreement, AgeX issued to Juvenescence warrants to purchase 150,000 shares of AgeX common stock. See Note 4.

6. Stock-based Compensation

Equity Incentive Plan

Under the 2017 Equity Incentive Plan (the "Plan"), AgeX reserved 4,000,000 shares of common stock for the grant of stock options or the sale of restricted stock ("Restricted Stock") or for the settlement of hypothetical units issued with reference to common stock ("Restricted Stock Units"). AgeX may also grant stock appreciation rights ("SARs") under the Plan. The Plan also permits AgeX to issue such other securities as its Board of Directors (the "Board") or the Compensation Committee (the "Committee") administering the Plan may determine. Awards of stock options, Restricted Stock, SARs, and Restricted Stock Units ("Awards") may be granted under the Plan to AgeX employees, directors, and consultants.

Awards may vest and thereby become exercisable or have restrictions on forfeiture lapse on the date of grant or in periodic installments or upon the attainment of performance goals, or upon the occurrence of specified events.

No person shall be granted, during any one year period, options to purchase, or SARs with respect to, more than 1,000,000 shares in the aggregate, or any Awards of Restricted Stock or Restricted Stock Units with respect to more than 500,000 shares in the aggregate. If an Award is to be settled in cash, the number of shares on which the Award is based shall not count toward the individual share limit.

No Awards may be granted under the Plan more than ten years after the date upon which the Plan was adopted by the Board, and no options or SARS granted under the Plan may be exercised after the expiration of ten years from the date of grant.

Stock Options

Options granted under the Plan may be either "incentive stock options" within the meaning of Section 422(b) of the Internal Revenue Code of 1986, as amended (the "Code"), or "non-qualified" stock options that do not qualify incentive stock options. Incentive stock options may be granted only to AgeX employees and employees of subsidiaries. The exercise price of stock options granted under the Plan must be equal to the fair market of AgeX common stock on the date the option is granted. In the case of an optionee who, at the time of grant, owns more than 10% of the combined voting power of all classes of AgeX stock, the exercise price of any incentive stock option must be at least 110% of the fair market value of the common stock on the grant date, and the term of the option may be no longer than five years. The aggregate fair market value of common stock (determined as of the grant date of the option) with respect to which incentive stock options become exercisable for the first time by an optionee in any calendar year may not exceed $100,000.

The exercise price of an option may be payable in cash or in common stock having a fair market value equal to the exercise price, or in a combination of cash and common stock, or other legal consideration for the issuance of stock as the Board or Committee may approve.

Generally, options will be exercisable only while the optionee remains an employee, director or consultant, or during a specific period thereafter, but in the case of the termination of an employee, director, or consultant's services due to death or disability, the period for exercising a vested option shall be extended to the earlier of 12 months after termination or the expiration date of the option.

Restricted Stock and Restricted Stock Units

In lieu of granting options, AgeX may enter into purchase agreements with employees under which they may purchase or otherwise acquire Restricted Stock or Restricted Stock Units subject to such vesting, transfer, and repurchase terms, and other restrictions. The price at which Restricted Stock may be issued or sold will be not less than 100% of fair market value. Employees or consultants, but not executive officers or directors, who purchase Restricted Stock may be permitted to pay for their shares by delivering a promissory note or an installment payment agreement that may be secured by a pledge of their Restricted Stock. Restricted Stock may also be issued for services actually performed by the recipient prior to the issuance of the Restricted Stock. Unvested Restricted Stock for which AgeX has not received payment may be forfeited, or AgeX may have the right to repurchase unvested shares upon the occurrence of specified events, such as termination of employment.

Subject to the restrictions set with respect to the particular Award, a recipient of Restricted Stock generally shall have the rights and privileges of a stockholder, including the right to vote the Restricted Stock and the right to receive dividends; provided that, any cash dividends and stock dividends with respect to the Restricted Stock shall be withheld for the recipient's account, and interest may be credited on the amount of the cash dividends withheld. The cash dividends or stock dividends so withheld and attributable to any particular share of Restricted Stock (and earnings thereon, if applicable) shall be distributed to the recipient in cash or, at the discretion of the Board or Committee, in shares of common stock having a fair market value equal to the amount of such dividends, if applicable, upon the release of restrictions on the Restricted Stock and, if the Restricted Stock is forfeited, the recipient shall have no right to the dividends.

The terms and conditions of a grant of Restricted Stock Units shall be determined by the Board or Committee. No shares of common stock shall be issued at the time a Restricted Stock Unit is granted. A recipient of Restricted Stock Units shall have no voting rights with respect to the Restricted Stock Units. Upon the expiration of the restrictions applicable to a Restricted Stock Unit, AgeX will either issue to the recipient, without charge, one share of common stock per Restricted Stock Unit or cash in an amount equal to the fair market value of one share of common stock.

At the discretion of the Board or Committee, each Restricted Stock Unit (representing one share of common stock) may be credited with cash and stock dividends paid in respect of one share ("Dividend Equivalents"). Dividend Equivalents shall be withheld for the recipient's account, and interest may be credited on the amount of cash Dividend Equivalents withheld. Dividend Equivalents credited to a recipient's account and attributable to any particular Restricted Stock Unit (and earnings thereon, if applicable) shall be distributed in cash or in shares of common stock having a fair market value equal to the amount of the Dividend Equivalents and earnings, if applicable, upon settlement of the Restricted Stock Unit. If a Restricted Stock Unit is forfeited, the recipient shall have no right to the related Dividend Equivalents.

SARs

An SAR is the right to receive, upon exercise, an amount payable in cash or shares, or a combination of shares and cash, equal to the number of shares subject to the SAR that is being exercised, multiplied by the excess of (a) the fair market value of a common stock on the date the SAR is exercised, over (b) the exercise price specified in the SAR Award agreement. SARs may be granted either as free standing SARs or in tandem with options. No SAR may be exercised later than 10 years after the date of grant.

The exercise price of an SAR shall not be less than 100% of the fair market value of one share of common stock on the date of grant. An SAR granted in conjunction with an option shall have the same exercise price as the related option, shall be transferable only upon the same terms and conditions as the related option, and shall be exercisable only to the same extent as the related option; provided, however, that the SAR by its terms shall be exercisable only when the fair market value per share exceeds the exercise price per share of the SAR or related option. Upon any exercise of an SAR granted in tandem with an option, the number of shares for which the related option shall be exercisable shall be reduced by the number of shares for which the SAR has been exercised. The number of shares for which an SAR issued in tandem with an option shall be exercisable shall be reduced by the number of shares for which the related option has been exercised.

Equity Incentive Plan Awards

A summary of the Plan activity and related information follows (in thousands except weighted average exercise price):

	Shares Available for Grant	Number of Options Outstanding	Number of RSUs Outstanding	Weighted Average Exercise Price
January 1, 2018	2,761	1,239	-	$ 2.00
Options granted	(1,038)	1,038	-	2.91
Options forfeited	8	(8)	-	2.00
Outstanding at December 31, 2018	1,731	2,269	-	2.42
Restricted stock units granted	(100)	-	50	-
Options granted	(677)	677	-	3.92
Options forfeited and cancelled	100	(100)	-	3.48
December 31, 2019	1,054	2,846	50	$ 2.74
Exercisable at December 31, 2019		1,630		$ 2.55

There were no exercises of stock options during the years ended December 31, 2019 and 2018. Total proceeds if all options granted and outstanding as of December 31, 2019 were exercised would be approximately $7.8 million.

At December 31, 2019, AgeX had approximately $2.4 million of total unrecognized compensation expense related to the Plan that will be recognized over a weighted-average period of 2.67 years.

The aggregate intrinsic value of options outstanding was $13,000 and options exercisable was $6,000 as of December 31, 2019.

Stock-based Compensation Expense

AgeX recorded stock-based compensation expense in the following categories on the accompanying consolidated statements of operations for the years ended December 31, 2019 and 2018 (in thousands):

	Year Ended December 31,	
	2019	2018
Research and development	$ 133	$ 148
General and administrative	1,774	1,325
Total stock-based compensation expense	$ 1,907	$ 1,473

The weighted-average estimated fair value of stock options granted during the years ended December 31, 2019 and 2018 was $2.45 per share and $1.99 per share, respectively, using the Black-Scholes option pricing model with the following weighted-average assumptions:

	Year Ended December 31,	
	2019	2018
Expected life (in years)	6.01	6.05
Risk-free interest rates	1.96%	2.99%
Volatility	74.53%	76.4%
Dividend yield	-%	-%

The determination of stock-based compensation is inherently uncertain and subjective and involves the application of valuation models and assumptions requiring the use of judgment. If AgeX had made different assumptions, its stock-based compensation expense and net loss for the years ended December 31, 2019 and 2018 may have been significantly different. See Note 2 for a discussion of the factors used in determining these assumptions.

AgeX does not recognize deferred income taxes for incentive stock option compensation expense and records a tax deduction only when a disqualified disposition has occurred.

7. Income Taxes

Net loss from continuing operations before provision for income taxes are as follows:

	December 31,	
	2019	2018
Domestic	$ (13,051)	(7,542)
Foreign	815	(189)
Net loss before income tax provision	$ (12,236)	(7,731)

On December 22, 2017, in response to the enactment of the 2017 Tax Act (see Note 2), the SEC staff issued SAB 118 that allows AgeX to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. The repatriation tax is based primarily on LifeMap Sciences Ltd., an Israeli subsidiary of LifeMap Sciences (see Note 4), accumulated foreign earnings and profits that LifeMap Sciences previously excluded from U.S. income taxes. The federal taxable income was offset by operating losses and resulted in no federal income tax due. AgeX applied the guidance in SAB 118 when accounting for the enactment-date effects of the 2017 Tax Act during the year ended December 31, 2018. As of December 31, 2018, AgeX completed its accounting for all the enactment-date income tax effects of the 2017 Tax Act discussed below.

AgeX remeasured certain deferred tax assets and liabilities based on the enacted tax rate at which they are expected to reverse in the future.

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes.

The primary components of the net deferred tax assets and liabilities as of December 31, 2019 and 2018 were as follows (in thousands):

	December 31,	
Deferred tax assets/(liabilities):	2019	2018
Net operating loss carryforwards	$ 12,402	$ 9,893
Research and development credit carryforwards	2,069	1,734
Patents and fixed assets	454	292
Stock-based compensation	659	241
Operating lease liability	428	-
Other, net	124	83
Operating lease ROU assets	(424)	-
Valuation allowance	(15,712)	(12,243)
Total net deferred tax assets	$ -	$ -

A valuation allowance is provided when it is more likely than not that all or some portion of the deferred tax assets will not be realized. AgeX established a full valuation allowance for all periods presented due to the uncertainty of realizing future tax benefits from its net operating loss carryforwards and other deferred tax assets.

Income taxes differed from the amounts computed by applying the U.S. federal income tax rate indicated to pretax losses from operations as a result of the following:

	December 31,	
	2019	2018
Computed tax benefit at federal statutory rate	21%	21%
Research and development and other credits	1%	1%
State tax benefit, net of effect on federal income taxes	5%	3%
Permanent differences	-%	(1)%
Change in valuation allowance	(28)%	(23)%
Foreign rate differential	-%	(1)%
	(1)%	-%

As of December 31, 2019, AgeX has net operating loss carryforwards of approximately $42.0 million for U.S. federal income tax purposes. Of this amount, $10.1 million is attributable to LifeMap Sciences, which includes $3.6 million in NOLs generated while it was included in the consolidated Lineage tax group and would be available to offset income of AgeX in the future. The remaining LifeMap Sciences' NOLs of $6.5 million are attributable to NOLs generated for the tax years during which LifeMap Sciences filed a separate federal income tax return and, accordingly, those NOLs are available only to LifeMap Sciences' taxable income within AgeX in future years. In general, NOLs and other tax credit carryforwards generated by legal entities in a consolidated federal tax group are available to other members of the tax group depending on the nature of the transaction that a member may enter into while still in the consolidated federal tax group. However, under the Tax Matters Agreement between Lineage and AgeX, any use of a member's NOLs and other tax credit carryforwards by the other member is subject to reimbursement by the benefiting member for the actual tax benefit realized. Since the August 30, 2018 deconsolidation of AgeX and to date, neither Lineage nor AgeX has used the tax attributes of the other.

On March 23, 2018, Ascendance was acquired by a third party in a merger through which AgeX received approximately $3.2 million in cash for its shares of Ascendance common stock. For financial reporting purposes, AgeX recognized a $3.2 million gain on the sale of its equity method investment in Ascendance (see Note 4). The sale was a taxable transaction to AgeX generating a taxable gain of approximately $2.2 million. AgeX had sufficient current year losses from operations to offset the entire gain resulting in no income taxes due. At the close of the merger, $955,000 of cash that otherwise would have been payable to the Ascendance stockholders on a pro rata basis based on share ownership was deposited into an escrow account where it was held through the term of the escrow, which expired in June 2019. The funds were held in the escrow account to cover certain potential indemnity payments and other obligations that might arise after the merger. During 2019, the escrow funds were paid to the former Ascendance shareholders and AgeX received $354,000 as its pro rata share of the funds as additional proceeds from the sale of its Ascendance investment (see Note 4) included in other income, net, for the year ended December 31, 2019. AgeX has sufficient current year losses from operations to offset this gain resulting in no income taxes due.

As further discussed in Note 1, on August 30, 2018, Lineage consummated the sale of 14,400,000 shares of AgeX common stock to Juvenescence. AgeX received no proceeds from that transaction because the shares sold were owned by Lineage. Prior to the transaction, Juvenescence owned 5.6% of AgeX's issued and outstanding common stock. Upon completion of the transaction, Lineage's ownership in AgeX was reduced from 80.4% to 40.2% of AgeX's issued and outstanding shares of common stock, and Juvenescence's ownership in AgeX was increased from 5.6% to 45.8% of AgeX's issued and outstanding shares of common stock. Accordingly, since August 31, 2018, AgeX has not been included in Lineage's consolidated federal and state income tax returns and AgeX has filed its own, standalone income tax returns with its subsidiaries.

As of December 31, 2019, AgeX has net operating losses of approximately $36.1 million for California purposes. As AgeX and its subsidiaries have been included in the combined California tax return with Lineage, up to the date of deconsolidation on August 30, 2018, those state net operating losses will remain with AgeX. In general, NOLs and other tax credit carryforwards generated by legal entities in a combined state tax group are available to other members of the tax group depending on the nature of the transaction that a member may enter into while still in the combined state tax group. However, under the Tax Matters Agreement between Lineage and AgeX, any use of a member's NOLs and other tax credit carryforwards by the other member is subject to reimbursement by the benefiting member for the actual tax benefit realized. Federal net operating losses generated on or prior to December 31, 2017, expire in varying amounts between 2028 and 2037, while federal net operating losses generated after December 31, 2017, carryforward indefinitely. The state net operating losses expire in varying amounts between 2028 and 2039.

As of December 31, 2019, AgeX has research and development tax credit carryforwards for federal and state tax purposes of $1.1 million and $957,000, respectively. Although this LifeMap Sciences credit has been included as part of the AgeX credit carryforwards, LifeMap Sciences filed a separate federal income tax return prior to January 1, 2018 and its prior research credit carryforwards may not be used to offset federal taxable income of AgeX. As AgeX and its subsidiaries were included in the California combined return with Lineage, these credits noted above will remain with AgeX. The federal tax credits expire between 2028 and 2039, while the state tax credits have no expiration date.

Beginning in 2018, the 2017 Tax Act subjects a U.S. stockholder to tax on Global Intangible Low Tax Income "GILTI" earned by certain foreign subsidiaries. In general, GILTI is the excess of a U.S. shareholder's total net foreign income over a deemed return on tangible assets. The provision further allows a deduction of 50% of GILTI, however this deduction is limited to the company's pre-GILTI U.S. income. For the year ended December 31, 2018, we included an immaterial amount of GILTI in U.S. gross income related to LifeMap Sciences, Ltd., which was fully offset by current year operating losses. For the year ended December 31, 2019, our foreign income inclusion was less than the deemed return on tangible assets, therefore no GILTI was included in income for 2019. Current interpretations under ASC 740 state that an entity can make an accounting policy election to either recognize deferred taxes for temporary basis differences expected to reverse as GILTI in future years or to provide for the tax expense related to GILTI in the year the tax is incurred as a period expense. We have elected to account for GILTI as a current period expense when incurred.

For the year ended December 31, 2019, we experienced a domestic loss from continuing operations but generated foreign income attributable primarily to foreign currency transaction gains for those periods. This income was principally related to the remeasurement of the U.S. dollar denominated intercompany advances payable by LifeMap Sciences, Ltd. to LifeMap Sciences, Inc., for which a foreign income tax provision of $148,000 was recorded for the year ended December 31, 2019. Due to losses incurred for 2019, we did not record a domestic provision or benefit for income taxes for the year ended December 31, 2019.

Other Income Tax Matters

Internal Revenue Code Section 382 places a limitation ("Section 382 Limitation") on the amount of taxable income that can be offset by net operating loss ("NOL") carryforwards after a change in control (generally greater than 50% change in ownership within a three-year period) of a loss corporation. California has similar rules. Generally, after a control change, a loss corporation cannot deduct NOL carryforwards in excess of the Section 382 Limitation. Due to these "change in ownership" provisions, utilization of the NOL and tax credit carryforwards may be subject to an annual limitation regarding their utilization against taxable income in future periods.

AgeX and its subsidiaries may be subject to potential income tax examination by U.S. federal or states authorities. These potential examinations may include inquiries regarding the timing and amount of deductions, and compliance with U.S. federal and state tax laws. AgeX filed its first consolidated federal tax return in 2018. For AgeX subsidiaries that did operate and filed separate tax returns prior to 2018, those entities are not subject to tax examination by major taxing authorities for tax years before 2015. However, the taxing authorities may still make adjustments to the net operating loss and credit carryforwards used in open years by AgeX or any of its subsidiaries. Any potential examinations may include inquiries regarding the timing and amount of deductions, and compliance with U.S. federal and state tax laws.

8. Commitments and Contingencies

Lease Agreement

On April 2, 2019, the term of a sublease that AgeX entered into during March 2019 (the "AgeX Lease") went into effect for an office and research facility (the "New Facility") comprising approximately 23,911 square feet of space in a building in an office and research park at 965 Atlantic Avenue, Alameda, California that serves as AgeX's principal offices and research laboratory.

Base monthly rent is $35,866.50 for the initial 12 months of the sublease term and then will increase to $36,942.50. In addition, AgeX will pay real property taxes, insurance and operating expenses pertaining to the building in which the New Facility is located. The AgeX Lease will expire on December 31, 2020.

AgeX is responsible for the maintenance and repair of the New Facility, including electrical, plumbing, HVAC and other systems serving the New Facility but excluding structural and other external portions of the building in which the New Facility is located, and other external areas such as parking, landscaping and walkways associated with the building.

AgeX will be in default under the AgeX Lease, and the sublandlord may terminate the AgeX Lease and may exercise other remedies against AgeX for losses and damages under the AgeX Lease and applicable law, if any one or more of the following events occurs: (a) AgeX fails to pay any rent or any other sum required to be paid for a period of ten (10) days after written notice of delinquency is delivered by the sublandlord; provided, however, that if AgeX fails to pay rent or other sums due within ten (10) days of the date due three or more times during any twelve month period, then any subsequent failure to pay any rent or other sum when due shall constitute a default without the requirement of any written notice; (b) a material default by AgeX in the performance of any other terms, covenants or conditions of the AgeX Lease where the failure continues for thirty (30) days after written notice from the sublandlord; provided that if AgeX defaults in the performance of the same obligation three or more times in any twelve month period and notice from the sublandlord was given in each instance, no cure period shall thereafter be applicable; (c) AgeX becomes bankrupt or insolvent, makes an assignment for the benefit of creditors, bankruptcy or reorganization proceedings are commenced by or against AgeX, and in the case of an involuntary proceeding are not discharged within 60 days, the appointment of a receiver for a substantial part of AgeX's assets, or the levy upon the sublease or AgeX's estate in the sublease by attachment or execution, or (d) AgeX abandons the New Facility.

AgeX has agreed to indemnify the sublandlord against certain liabilities arising under laws pertaining to hazardous materials. The indemnity of the sublandlord will pertain to any deposit, spill, discharge or release of hazardous materials that occurs during the term of the AgeX Lease or from AgeX's failure to comply with requirements of governmental authorities.

The AgeX Lease requires AgeX to maintain certain liability and other insurance and contains customary provisions pertaining to matters such as damage or destruction of the New Facility, taking by eminent domain or similar process, restrictions on subletting and assignment, and other matters.

In connection with the AgeX Lease, as of December 31, 2019 AgeX incurred $436,000 in tenant improvement expenses that it funded and completed in November 2019. This amount is being amortized over the remaining lease term.

Subleases

During 2019, AgeX, as a sublessor, entered into sublease agreements (the "AgeX Subleases") with unrelated parties (the "Sublessees") to lease approximately 11,121 square feet of space at AgeX's New Facility. The first Sublessee will pay AgeX $3,088.50 per month and the second Sublessee will pay AgeX $15,405.40 per month for the first twelve months of the AgeX Sublease and $16,311.60 per month for the duration of the AgeX Subleases. The AgeX Subleases which will expire on December 31, 2020. The Sublessee will also be responsible to reimburse AgeX for Sublessees' pro rata portion of the maintenance and repair of the New Facility, including electrical, plumbing, HVAC and other systems serving the New Facility but excluding structural and other external portions of the building in which the New Facility is located, and other external areas such as parking, landscaping and walkways associated with the building.

Adoption of ASC 842

The tables below provide the amounts recorded in connection with the adoption of ASC 842 as of, and during, the year ended December 31, 2019, for the AgeX Lease. AgeX recorded a right-of-use asset of $726,000 and a right-of-use liability for the same amount for the AgeX Lease in April 2019, which is considered a noncash investing activity.

The following table presents supplemental cash flow information related to the AgeX Lease for the year ended December 31, 2019 (in thousands):

Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows for operating lease	$	323

The following table presents supplemental balance sheet information related to the AgeX Lease as of December 31, 2019 (in thousands, except lease term and discount rate):

Operating lease		
Right-of-use asset, net	$	424
Right-of-use lease liability	$	428
Weighted average remaining lease term		
Operating lease		1 year
Weighted average discount rate		
Operating lease		6%

The following table presents future minimum lease commitments as of December 31, 2019 (in thousands):

	Operating Lease Payments
Year Ending December 31, 2020	$ 440
Less imputed interest	(12)
Total	$ 428

Litigation – General

AgeX is subject to various claims and contingencies in the ordinary course of its business, including those related to litigation, business transactions, employee-related matters, and others. When AgeX is aware of a claim or potential claim, it assesses the likelihood of any loss or exposure. If it is probable that a loss will result and the amount of the loss can be reasonably estimated, AgeX will record a liability for the loss. If the loss is not probable or the amount of the loss cannot be reasonably estimated, AgeX discloses the claim if the likelihood of a potential loss is reasonably possible and the amount involved could be material. AgeX is not aware of any claims likely to have a material adverse effect on its financial condition or results of operations.

Employment Contracts

AgeX has entered into employment contracts with certain executive officers. Under the provisions of the contracts, AgeX may be required to incur severance obligations for matters relating to changes in control, as defined, and involuntary terminations.

Indemnification

In the normal course of business, AgeX may provide indemnifications of varying scope under AgeX's agreements with other companies or consultants, typically for AgeX's pre-clinical programs. Pursuant to these agreements, AgeX will generally agree to indemnify, hold harmless, and reimburse the indemnified parties for losses and expenses suffered or incurred by the indemnified parties arising from claims of third parties in connection with AgeX's pre-clinical programs. Indemnification provisions could also cover third-party infringement claims with respect to patent rights, copyrights, or other intellectual property pertaining to AgeX's pre-clinical programs. AgeX has also agreed to indemnify the sublessor and owner of the New Facility with respect to certain matters that may arise during the term of the AgeX Lease. The term of these indemnification obligations will generally continue in effect after the termination or expiration of the particular research, development, services, license, or lease agreement to which they relate. The potential future payments AgeX could be required to make under these indemnification agreements will generally not be subject to any specified maximum amount. Historically, AgeX has not been subject to any claims or demands for indemnification. AgeX also maintains various liability insurance policies that limit AgeX's financial exposure. As a result, AgeX believes the fair value of these indemnification agreements is minimal. Accordingly, AgeX has not recorded any liabilities for these agreements as of December 31, 2019 and 2018.

9. Subsequent Events

New Loan Agreement

On March 30, 2020 AgeX and Juvenescence entered into a new Secured Convertible Facility Agreement (the "New Loan Agreement") pursuant to which Juvenescence has agreed to provide to AgeX an $8.0 million line of credit for a period of 18 months on substantially the same terms as the Loan Agreement described in Note 4, except that (a) all loans to AgeX under the New Loan Agreement in excess of an initial $500,000 advance are subject to Juvenescence's discretion, (b) AgeX may not draw more than $1 million in any single draw, (c) in lieu of accrued interest, AgeX will issue to Juvenescence 28,500 shares of AgeX common stock when AgeX has borrowed an aggregate of $3 million under the New Loan Agreement, (d) AgeX will issue to Juvenescence warrants to purchase shares of AgeX common stock ("New Warrants") in amounts determined by the warrant formula described below, (e) the Repayment Date for outstanding principal balance of the loan under the New Loan Agreement will be March 30, 2023, (f) if AgeX requests additional loans after making the first two draws of funds (which are expected to total $1 million) under the New Loan Agreement, a Security and Pledge Agreement (the "Security Agreement") will go into effect granting Juvenescence a security interest in all of the assets of AgeX and Agex's subsidiaries ReCyte Therapeutics and Reverse Bioengineering, Inc. (the "Guarantor Subsidiaries" or each a "Guarantor Subsidiary") (g) the Guarantor Subsidiaries will guarantee AgeX's obligations under the New Loan Agreement if AgeX makes more than two draws of funds under the New Loan Agreement and (h) Juvenescence has the right to convert the principal amount of outstanding loans under the New Loan Agreement into shares of AgeX common stock at the Market Price as defined in the New Loan Agreement. Further, in addition to the Events of Default described in Note 4, additional Events of Default will arise under the New Loan Agreement if (i) AgeX or any of the Guarantor Subsidiaries sells, leases, licenses, consigns, transfers, or otherwise disposes of a material part of its assets other than inventory in the ordinary course of business or certain intercompany transactions, or certain other limited permitted transactions, unless Juvenescence approves, (ii) the security interests under the Security Agreement, if in effect, are not valid or perfected, or AgeX or a Guarantor Subsidiary contests the validity of its obligations under the New Loan Agreement or Security Agreement or other related agreement with Juvenescence, or there is a loss, theft, damage or destruction of a material portion of the collateral, (iii) any representation, warranty, or other statement made by AgeX or a Guarantor Subsidiary under the New Loan Agreement is incomplete, untrue, incorrect, or misleading, or (iv) AgeX or a Guarantor Subsidiary suspends or ceases to carry on all or a material part of its business or threatens to do so.

Although the New Loan Agreement provides that Juvenescence may lend us up to $8 million, all loans in excess of the initial $500,000 are subject to Juvenescence's discretion. Juvenescence will require that AgeX implement a plan prior to April 30, 2020 to reduce spending on employee salaries and consulting fees and to pay no bonuses for 2019 in order to borrow more than the initial $500,000, although such additional borrowings will remain subject to Juvenescence's discretion.

Each time AgeX receives an advance of funds under the New Loan Agreement, AgeX will issue to Juvenescence a number of New Warrants equal to 50% of the number determined by dividing the amount of the advance by the applicable Market Price. The Market Price will be the closing price per share of AgeX common stock on the NYSE American or other national securities exchange on the date of the applicable notice from AgeX requesting a draw of funds that triggers the obligation to issue New Warrants; provided, however that if AgeX common stock is not traded on a national securities exchange the Market Price shall

be determined with reference to closing prices quoted or bid and asked prices on the OTC Bulletin Board or similar quotation system averaged over twenty consecutive trading days. The exercise price of the New Warrants will be the applicable Market Price. The New Warrants will expire at 5:00 p.m. New York time three years after the date of issue.

AgeX has entered into an amendment to its Registration Rights Agreement described in Note 4 and include the 28,500 shares issuable under the New Loan Agreement and the New Warrants and underlying shares as registrable securities under the Registration Rights Agreement.

Covid-19 Pandemic

The outbreak of the corona virus COVID-19 could disrupt AgeX's operations due to employee absenteeism whether due to illness or quarantines. Supply chains for chemical reagents and other supplies used in AgeX's laboratory could be disrupted if the manufacturers or shippers experience operational disruptions related to COVID-19 illness or quarantines. COVID-19 illness could also impact members of the AgeX Board of Directors making it more difficult to convene quorums of the Board of Directors or its committees needed to conduct meetings for the management of AgeX. We cannot presently predict the extent to which the virus may impact our operations.

The anticipated economic consequences of the COVID-19 pandemic have adversely impacted financial markets and could adversely affect AgeX's ability to raise capital when needed through the sale of shares of common stock or other equity or debt securities.

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

Not applicable.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

It is management's responsibility to establish and maintain adequate internal control over all financial reporting pursuant to Rule 13a-15 under the Exchange Act. Our management, including our principal executive officer and our principal financial officer, have reviewed and evaluated the effectiveness of our disclosure controls and procedures as of the end of our fourth quarter. Following this review and evaluation, management collectively determined that our disclosure controls and procedures are effective to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act (i) is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms; and (ii) is accumulated and communicated to management, including our chief executive officer and our chief financial officer, as appropriate to allow timely decisions regarding required disclosure.

This Report does not include a report of management's assessment regarding internal control over financial reporting or an attestation report of AgeX's registered public accounting firm due to a transition period established by rules of the Securities and Exchange Commission for newly public companies.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the fourth quarter of our fiscal year ended December 31, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

On March 30, 2020 AgeX entered into the New Loan Agreement with Juvenescence described in Note 9 to our consolidated financial statements included elsewhere in this Report. AgeX also entered into a Warrant Agreement ("New Warrant Agreement") governing the issuance of the New Warrants described in Note 9, and an amendment to the August 2019 Registration Rights Agreement as described in Note 9. The foregoing descriptions of the New Loan Agreement, the New Warrants, and the amendment of the Registration Rights Agreement (the "Amendment") in Note 9 to our consolidated financial statements are incorporated herein by reference and are qualified in all respects by full texts of the New Loan Agreement, the New Warrant Agreement and the Amendment.

PART III

Item 10. Directors, Executive Officers, and Corporate Governance

Directors

The names and ages of our directors are:

Gregory H. Bailey, M.D., 64, joined our Board of Directors in August 2018 and became the Chairman of our Board of Directors in October 2018. Dr. Bailey is currently the Chief Executive Officer of Juvenescence Limited, a privately held company focused on the development of therapies for ageing and age-related diseases. Dr. Bailey is also a director of Manx Financial Group, plc, BioHaven Inc, SalvaRx Inc and Portage Biotech. Dr. Bailey has founded and served as a director of a number of private and public companies and previously served as a managing partner of Palantir Group, Inc., a merchant bank involved in a number of biotech company startups and financings. Dr. Bailey practiced emergency medicine for ten years before entering finance. Dr. Bailey received his M.D. from the University of Western Ontario. We believe that Dr. Bailey is qualified to serve on our Board based on his years of experience in medicine and as an executive and in finance for the biotechnology industry.

Annalisa Jenkins, M.B.B.S., F.R.C.P., 54, has served as a member of our Board of Directors since October 2018. From November 2017 until April 2019, Dr. Jenkins served as the Chief Executive Officer of PlaqueTec Ltd., a biotechnology company focusing on coronary artery disease treatment and prevention. Previously, Dr. Jenkins served as the Chief Executive Officer and a member of the board of directors of Dimension Therapeutics, Inc., a biotechnology company focused on rare and metabolic diseases associated with the liver, from September 2014 until its sale to Ultragenyx Pharmaceutical Inc. in November 2017. From October 2013 to March 2014, Dr. Jenkins served as executive vice president, head of global research and development for Merck Serono Pharmaceuticals, a biopharmaceutical company. Previously, from September 2011 to October 2013, she served as Merck Serono's executive vice president, global development and medical, and was a member of Merck Serono's executive committee. Prior to that, Dr. Jenkins pursued a 15-year career at Bristol-Myers Squibb Company, a biopharmaceutical company, where, from July 2009 to June 2011, she was a senior vice president and head of global medical affairs. Dr. Jenkins is currently a committee member of the science board to the FDA, which advises FDA leadership on complex scientific and technical issues. Dr. Jenkins serves on the board of directors of Avrobio, Inc., Oncimmune Holdings plc and a number of privately held biotechnology and life science companies. Dr. Jenkins previously served on the board of Silence Therapeutics. Dr. Jenkins graduated with a degree in medicine from St. Bartholomew's Hospital in the University of London and subsequently trained in cardiovascular medicine in the UK National Health Service. Earlier in her career, Dr. Jenkins served as a medical officer in the British Royal Navy. We believe that Dr. Jenkins is qualified to serve on our Board based on her years of experience in medicine and as an executive in the biopharma industry.

Michael H. May, 51, joined our Board of Directors during August 2019. Dr. May is President and Chief Executive Officer of CCRM Enterprises and the Center for Commercialization of Regenerative Medicine or CCRM, a public-private consortium founded under Canada's Centres of Excellence for Commercialization and Research Program to generate sustainable health and economic benefits through global collaboration in cell and gene therapy, and regenerative medicine. Dr. May co-founded Rimon Therapeutics Ltd., a Toronto-based tissue engineering company developing novel medical polymers that possess drug-like activity, and served as President and Chief Executive Officer of Rimon from 2000 to 2006, and President and Chief Operating Officer from 2006 to 2010. Dr. May serves on a number of boards of directors and advisory committees in the field of stem cell research and regenerative medicine, including at the International Society for Cell Therapy (ISCT) and the Alliance for Regenerative Medicine (ARM). Dr. May completed his PhD in Chemical Engineering at the University of Toronto in 1998 as an NSERC Scholar and was awarded the Martin Walmsley Fellowship for Technological Entrepreneurship. We believe that Dr. May is qualified to serve on our Board based on his years of experience in tissue engineering and the fields of stem cell research and regenerative medicine.

Michael D. West, Ph.D., 66, joined the Board of Directors during January 2017 and has served as our Chief Executive Officer since that date. Dr. West was appointed Chief Executive Officer of Lineage Cell Therapeutics, Inc. (formerly BioTime, Inc.) during October 2007 and then served as Co-Chief Executive Officer from October 2015 until September 2018. Dr. West also served as interim President and Chief Executive Officer of Asterias Biotherapeutics, Inc. from April 2014 to June 2014, and as Vice President of Technology Integration of Asterias until December 2015. Dr. West served as a director of: Lineage from 2002 until September 2018; Asterias from 2012 until September 2018; and OncoCyte Corporation from 2013 to 2016. Prior to becoming Chief Executive Officer of Lineage, Dr. West served as Chief Executive Officer, President, and Chief Scientific Officer of Ocata Therapeutics, Inc., a company engaged in developing human stem cell technology for use in regenerative medicine. Dr. West also founded Geron Corporation of Menlo Park, California, and from 1990 to 1998, he was a Director and Vice-President, where he initiated and managed programs in telomerase diagnostics, oligonucleotide-based telomerase inhibition as anti-tumor therapy, and the cloning and use of telomerase in telomerase-mediated therapy wherein telomerase is utilized to immortalize human cells. From 1995 to 1998 he organized and managed the research between Geron and its academic collaborators, James Thomson and John Gearhart, which led to the first isolation of human embryonic stem and human embryonic germ cells. Dr. West received a B.S. from Rensselaer Polytechnic Institute in 1976, an M.S. in Biology from Andrews University in 1982, and a Ph.D. from Baylor College of Medicine in 1989 concentrating on the biology of cellular aging. Dr. West is an internationally renowned pioneer and expert in stem cell research, and we believe that he is qualified to serve on our Board based on his years of executive experience in the fields of stem cell research and regenerative medicine.

Previous Arrangement for the Designation of Directors

Pursuant to a Shareholders Agreement between our former parent company Lineage Cell Therapeutics, Inc. ("Lineage"), formerly known as BioTime, Inc., and our current largest stockholder Juvenescence Limited ("Juvenescence"), Lineage had the right to designate two members of our Board of Directors and Juvenescence had the right to designate three members of our Board of Directors. Under the Shareholders Agreement, the remaining members of the Board of Directors were to be independent of Lineage and Juvenescence and mutually agreed to and designated by Lineage and Juvenescence. Pursuant to the Shareholders Agreement, Juvenescence designated Gregory Bailey and Annalisa Jenkins as directors. Lineage had previously appointed Michael D. West and Michael H. Mulroy as directors. The Shareholders Agreement is no longer in effect, having expired on November 28, 2018 (the "Distribution Date") when Lineage distributed to its shareholders, on a pro rata basis, 12,697,028 shares of the AgeX common stock it then held (the "Distribution").

Audit Committee

We have established an Audit Committee of the Board of Directors. The members of the Audit Committee are initially Annalisa Jenkins, and Michael May, each of whom qualifies as being "independent" under Section 8.03(A) and 8.03(B) of the NYSE American Company Guide and under Rule 10A-3 of the Exchange Act., John Mauldin also served as a member of the Audit Committee during 2019. Annalisa Jenkins is the Chair of the Audit Committee. The purpose of the Audit Committee is to recommend the engagement of our independent registered public accountants, to review their performance and the plan, scope, and results of the audit, and to review and approve the fees we pay to our independent registered public accountants. The Audit Committee also will review our accounting and financial reporting procedures and controls, and all transactions between us and our executive officers, directors, and stockholders who beneficially own 5% or more of any class of our voting securities. We have adopted a written charter for our Audit Committee which we have posted on our website at *www.agexinc.com*. The Board of Directors has also determined that Dr. Jenkins is "financially sophisticated" within the meaning of the rules and regulations of the NYSE American and qualifies as an "audit committee financial expert" as defined under applicable rules and regulations of the SEC and the NYSE American.

Code of Ethics

We have adopted a Code of Business Conduct and Ethics ("Code of Ethics") that applies to our principal executive officers, our principal financial officer and accounting officer, our other executive officers, and our directors. The purpose of the Code of Ethics is to promote (i) honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships; (ii) full, fair, accurate, timely, and understandable disclosure in reports and documents that we file with or submit to the SEC and in our other public communications; (iii) compliance with applicable governmental rules and regulations; (iv) prompt internal reporting of violations of the Code of Ethics to an appropriate person or persons identified in the Code of Ethics; and (v) accountability for adherence to the Code of Ethics. A copy of our Code of Ethics has been posted on our internet website and can be found at *www.agex.com*. We intend to disclose any future amendments to certain provisions of our Code of Ethics, and any waivers of those provisions granted to our principal executive officers, principal financial officer, principal accounting officer or controller or persons performing similar functions, by posting the information on our website within four business days following the date of the amendment or waiver.

Executive Officers

Our executive officers are Michael D. West, Chief Executive Officer, Russell L. Skibsted, Chief Financial Officer, and Hal Sternberg, Vice President of Research.

Russell L. Skibsted, 61, was appointed as our Chief Financial Officer during July 2017. Mr. Skibsted served as Chief Financial Officer of Lineage (formerly BioTime, Inc.) from November 2015 to January 2019, and served as Chief Financial Officer of OncoCyte Corporation, a former subsidiary of Lineage, from November 2015 until November 2017, and as Chief Financial Officer of Asterias Biotherapeutics, Inc., a former subsidiary of Lineage, from March 2016 until November 2016. Mr. Skibsted served as Chief Financial Officer of Proove Biosciences, Inc. from 2014 to November 2015. From 2013 to 2014 Mr. Skibsted was Managing Director and Chief Financial Officer of RSL Ventures, where he provided financial consulting services to public and private companies in the life sciences sector. Mr. Skibsted served as Senior Vice President, Chief Financial Officer and Secretary of Aeolus Pharmaceuticals, a publicly traded biopharma company, from 2010 to 2013, and was Senior Vice President and Chief Business Officer of Spectrum Pharmaceuticals, a publicly traded, biopharmaceutical company, from 2006 to 2009. Previously, from 2004 to 2006, Mr. Skibsted served as Chief Financial Officer of Hana Biosciences, and from 2000 to 2004 he served as Chief Financial Officer and Portfolio Management Partner of Asset Management Company, a venture capital firm. Mr. Skibsted holds a B.A. in Economics from Claremont McKenna College and an MBA from the Stanford Graduate School of Business.

Nafees N. Malik, MBChB, MPhil, 42, was appointed as our Chief Operating Officer during October 2018. He was also appointed Head of Cell and Gene Therapy at Juvenescence UK Ltd during October 2018. He founded and was managing director of Asklepian Consulting Limited from June 2013 where he focused on the strategic and commercial analysis of cell and gene therapies and regenerative medicine. Dr. Malik received his medical degree from the University of Liverpool and his Master of Philosophy degree in Bioscience Enterprise from the University of Cambridge.

Hal Sternberg, Ph.D., 66, was appointed Vice President of Research in August 2017. Prior to serving in that role, Dr. Sternberg was Vice President of Research of Lineage for over 25 years and was one of Lineage co-founders. Prior to co-founding and joining Lineage, Dr. Sternberg held various positions at the University of California at Berkeley from 1982 to 1988, where he supervised a team of researchers studying Alzheimer's Disease. Dr. Sternberg holds a M.S. in Chemistry and Ph.D. in Biochemistry from the University of Maryland.

Delinquent Section 16(a) Reports

Section 16(a) of Exchange Act, requires our directors and executive officers and persons who own more than ten percent (10%) of a registered class of our equity securities ("Reporting Persons") to file with the SEC initial reports of ownership and reports of changes in ownership of our common stock and other AgeX equity securities. Officers, directors and greater than ten percent beneficial owners are required by SEC regulations to furnish us with copies of all reports they file under Section 16(a).

To our knowledge, based solely on our review of the copies of Forms, 3 and 4 and amendments thereto filed during the last fiscal year, and Forms 5 and amendments thereto filed with respect to the last fiscal year, by the Reporting Persons, or written representation from the Reporting Persons that no Form 5 was required, all Section 16(a) filing requirements applicable to our officers, directors, and greater than ten percent beneficial owners were complied with during the fiscal year ended December 31, 2019, except that a Form 3 was filed late by Michael H. May, a member of our Board of Directors, and a Form 4 was filed late by John F. Mauldin, who was then a member of our Board of Directors.

Item 11. Executive Compensation

Emerging Growth Company and Smaller Reporting Company

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012 and a "smaller reporting company" as defined in the rules and regulations of the SEC. As an emerging growth company and as a smaller reporting company we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable, in general, to public companies that are not emerging growth companies or smaller reporting companies. Accordingly, this Report includes reduced disclosure about our executive compensation arrangements.

The following table shows certain information relating to the compensation of our Chief Executive Officer and the two highest paid individuals who were serving as executive officers at year end and in each case whose total compensation exceeded $100,000 during 2019. We refer to these individuals as our "Named Executive Officers.

Summary Compensation Table

The following table sets forth the compensation awarded to, earned by, or paid to our Named Executive Officers in respect of their service to the Company for the fiscal years ended December 31, 2019 and 2018.

Name and principal position	Year	Salary	Bonus	Option Awards[1]	All Other Compensation[2]	Total
Michael D. West	2019	$ 543,054	$ -	$ 484,647(3)	$ 14,000	$ 1,041,701
Chief Executive Officer	2018	575,433(4)	39,000(5)	1,025,497	10,477	1,650,407
Hal Sternberg	2019	250,374	25,000(6)	40,597	13,052	329,023
Vice President, Research	2018	242,665	30,000(6)	20,058	4,270	296,993
Nafees Malik[7]	2019	279,540(8)	50,000(8)	189,453	-	518,993
Chief Operating Officer	2018	58,650(8)	-	723,590	-	782,240

(1) Amounts shown in this column do not reflect dollar amounts actually received by our Named Executive Officers. Instead, these amounts reflect the aggregate grant date fair value of each stock option granted, computed in accordance with the provisions of FASB ASC Topic 718, *Compensation-Stock Compensation*. We used the Black-Scholes Pricing Model to compute option fair values based on applicable exercise and stock prices, an expected option term, volatility assumptions, and risk-free interest rates. Our Named Executive Officers will only realize compensation upon exercise of the stock options and to the extent the trading price of our common stock is greater than the exercise price of such stock options at the time of exercise.

One fourth of the options will vest upon completion of 12 full months of continuous employment measured from the date of grant, and the balance of the options vest in 36 equal monthly installments commencing on the first anniversary of the date of grant, based on the completion of each month of continuous service as an employee or director of AgeX or its subsidiaries.

(2) Amounts represent 401(k) matching contributions by us for the periods presented unless described otherwise.

(3) Dr. West's equity awards in 2019 reflect the fair value of 100,000 stock options and 50,000 restricted stock units.

(4) Pursuant to the Shared Facilities Agreement, Dr. West's salary for his services as Chief Executive Officer of AgeX for the period January 1 through September 17, 2018 was paid by Lineage, with 80% of such amount allocated to AgeX and reimbursed to Lineage. Since October 15, 2018 we have compensated Dr. West directly for his services as Chief Executive Officer under the terms of his employment agreement.

(5) Pursuant to the Shared Facilities Agreement, Dr. West's pro-rated bonus for his services as Chief Executive Officer of AgeX from January 1 through September 17, 2018 was paid by Lineage, with 80% of such amount allocated to AgeX and reimbursed to Lineage.

(6) Amounts represent the discretionary annual cash bonus paid to Dr. Sternberg during the periods presented.

(7) Dr. Malik has served as our Chief Operating Officer as a consultant through Juvenescence since October 2018. Dr. Malik is an employee of Juvenescence and has been devoting a majority of his time to AgeX's operations for which AgeX reimburses Juvenescence for his services.

(8) Amounts represent consulting fees and bonus payments made to Juvenescence for Dr. Malik.

Employment Agreements and Change of Control Provisions

Michael D. West

We have entered into an employment agreement with our Chief Executive Officer Michael D. West, effective October 18, 2018 (the "West Employment Agreement"). Pursuant to the West Employment Agreement, Dr. West's annual base salary was initially set at $525,000 and was increased by our Board of Directors to $544,687, a 3.75% increase, effective March 11, 2019. Under the West Employment Agreement, Dr. West is eligible to earn an annual incentive cash bonus with a target of no less than 50% of annual base salary. Actual bonus amounts will be based on Dr. West's attainment of individual performance goals at target levels set by the Board of Directors for the applicable calendar year. If such performance goals for the applicable year are fully achieved, the Board of Directors may approve a bonus amount exceeding the target bonus level.

Under the West Employment Agreement, Dr. West was initially granted options to purchase 500,000 shares of our common stock with an exercise price of $3.00 per share, with one fourth of the options vesting following 12 full months of continuous service as an employee of AgeX, measured from the date of grant, and the balance vesting in 36 equal monthly installments commencing on the first anniversary of the date of grant, based upon the completion of each month of continuous service as an employee of AgeX. Such options expire on the earliest of (1) 10 years from the date of grant, (2) three months after Dr. West ceases to provide continuous service to us (other than due to death or disability) or (3) one year after Dr. West ceases to provide continuous service to us due to death or disability. Dr. West received a discretionary grant of additional stock options and RSUs during 2019.

Hal Sternberg

We have entered into an employment agreement with our Vice President of Research Hal Sternberg (the "Sternberg Employment Agreement"). Dr. Sternberg's initial annual base salary from January 1 through March 4, 2018 was $235,000, and was increased by our Board of Directors during March 2018 to $242,050 and again during March 2019 to $251,127. Dr. Sternberg may receive bonuses at the discretion of our Board of Directors or Compensation Commitee based on Dr. Sternberg's performance and achievement of goals or milestone set by the Board of Directors or Compensation Committee from time to time.

Severance and Change of Control Arrangements for Dr. West and Dr. Sternberg

Pursuant to the West Employment Agreement and Sternberg Employment Agreement, each officer is entitled to severance benefits under certain circumstances.

If we terminate Dr. West's employment without "cause" or he resigns for "good reason" at any time, he will be entitled to (1) 12 months base salary, (2) all accrued but unpaid salary earned prior to or as of the date of termination or resignation, (3) full payment of Dr. West's target bonus due for such year and (4) for a period of six months, all benefits under any health insurance plan of AgeX. In addition, if we terminate Dr. West's employment without "cause" or he resigns for "good reason," (1) all of Dr. West's outstanding equity awards that would otherwise have vested during the 12 months following termination or resignation will become fully vested and exercisable immediately and (2) with respect to any outstanding vested but unexercised options, the exercise period following termination or resignation will be extended to the earlier of the (A) 12 months after termination or (B) the natural expiration date of the applicable option. If we terminate Dr. West's employment without "cause," or he resigns for "good reason," following a "Change of Control," (1) Dr. West will be entitled to all of the benefits and payments that he would have been entitled to if his employment had been otherwise terminated without "cause" or if he resigned for "good reason," as set forth above, and (2) all of Dr. West's unvested options and restricted stock units, if any, will become fully vested and exercisable immediately. The severance compensation may be paid in a lump sum or, at our election, in installments consistent with the payment of Dr. West's salary while employed by us. In order to receive the severance benefits, Dr. West must execute a general release of all claims against us.

If we terminate Dr. Sternberg's employment without "cause" within 12 months of employment, he will be entitled to three months base salary. If we terminate Dr. Sternberg's employment without "cause" after 12 months of employment, he will be entitled to six months base salary. If we terminate Dr. Sternberg's employment following a "Change of Control" within 12 months of employment, he will be entitled to three months based salary and accelerated vesting of 50% of any then unvested stock options granted. If we terminate Dr. Sternberg's employment following a "Change in Control" after 12 months of employment, he will receive six months base salary and vesting of 100% of any then unvested stock options granted. If Dr. Sternberg's employment is terminated for "cause," due to death or disability or from Dr. Sternberg's resignation, Dr. Sternberg will be entitled to all accrued but unpaid salary earned prior to or as of the date of termination or resignation. The severance compensation may be paid in a lump sum or, at our election, in installments consistent with the payment of Dr. Sternberg's salary while employed by us. In order to receive the severance benefits, Dr. Sternberg must execute a general release of all claims against us and must return all our property in his possession.

"Change of Control," as defined in each of the West Employment Agreement and Sternberg Employment Agreement, means any one of the following:

- the acquisition of our voting securities by a person or an Affiliated Group entitling the holder to elect a majority of our directors, except that an increase in the amount of voting securities held by a person or Affiliated Group who on the date of the Employment Agreement beneficially owned more than 10% of our voting securities will not be a Change of Control. In addition, an acquisition of voting securities by one or more persons acting as an underwriter in connection with a sale or distribution of voting securities will not constitute a Change of Control;

- the sale of all or substantially all of our assets; or

- a merger or consolidation in which we merge or consolidate into another corporation or entity in which our shareholders immediately before the merger or consolidation do not own, in the aggregate, voting securities of the surviving corporation or entity entitling them, in the aggregate (and without regard to whether they constitute an Affiliated Group) to elect a majority of the directors or persons holding similar powers of the surviving corporation or entity.

A Change of Control will not occur if all of the persons acquiring our voting securities or assets, or merging or consolidating with us, are one or more of our direct or indirect subsidiaries or parent corporations. "Affiliated Group" means (A) a person and one or more other persons in control of, controlled by, or under common control with, such person; and (B) two or more persons who, by written agreement among them, act in concert to acquire voting securities entitling them to elect a majority of our directors.

Equity Awards Outstanding At December 31, 2019

The following table summarizes certain information concerning outstanding stock options granted by us under our 2017 Equity Incentive Plan (the "Incentive Plan") and the stock option plans of certain of our subsidiaries and held by our Named Executive Officers as of December 31, 2019.

AgeX and Subsidiary Option and Stock Awards

Name	Stock Option Plan Name	Number of Securities Underlying Unexercised Options Exercisable	Number of Securities Underlying Unexercised Options Unexercisable	Option Exercise Price	Option Expiration Date	Number of Shares or Units of Stock that have Not Vested	Market Value of Shares or Units of Stock that have Not Vested
Michael D. West	AgeX Therapeutics, Inc. 2017 Equity Incentive Plan	-	100,000(1)	$ 4.28	March 10, 2029	-	-
		145,833	354,167(2)	$ 3.00	October 17, 2028	-	-
		513,333	146,667(3)	$ 2.00	October 9, 2027	-	-
		-	-	-	-	50,000(4)	$ 214,000
	LifeMap Sciences, Inc. 2011 Stock Option Plan	99,140	-	$ 1.75	September 30, 2020	-	-
	ReCyte Therapeutics, Inc. 2011 Stock Option Plan	500,000	-	$ 2.05	December 28, 2020	-	-
Hal Sternberg	AgeX Therapeutics, Inc. 2017 Equity Incentive Plan	-	15,000(1)	$ 4.28	March 10, 2029	-	-
		6,875	8,125(5)	$ 2.00	March 14, 2028	-	-
		18,229	16,771(6)	$ 2.00	November 14, 2027	-	-
Nafees Malik	AgeX Therapeutics, Inc. 2017 Equity Incentive Plan	-	70,000(1)	$ 4.28	March 10, 2029	-	-
		102,083	247,917(2)	$ 3.00	October 17, 2028	-	-

(1) One fourth of the options will vest upon completion of 12 full months of continuous service as an employee of AgeX or any subsidiary, measured from the date of grants March 11, 2019 and the balance of the options will vest in 36 equal monthly installments commencing on the first anniversary of the date of grant, based upon the completion of each month of continuous service as an employee of AgeX or any subsidiary.

(2) One fourth of the options vested on October 17, 2019, and the balance of the options will vest in 36 equal monthly installments commencing on the first anniversary of the date of grant, based upon the completion of each month of continuous service as an employee of AgeX or any subsidiary.

(3) One third of the options vested on August 17, 2018 and the balance of the options will vest in 24 equal monthly installments thereafter, based upon the completion of each month of continuous service as an employee or director of AgeX.

(4) The RSUs were granted under AgeX's 2017 Equity Incentive Plan on March 11, 2019, at which time the closing price on the NYSE American was $4.28 per share. None of the RSUs vested during 2019. The RSUs are subject to time-based vesting over a 4 year period with the first 25% vesting on the first anniversary date and the remainder vesting in equal quarterly installment over the remaining 3 years but must be reported here at the aggregate grant date fair value, as if the RSUs were fully vested and exercisable at the date of grant. Each RSU represents a contingent right to receive one AgeX common stock.

(5) One fourth of the options will vest vested on March 14, 2019, and the balance of the options will vest in 36 equal monthly installments commencing on the first anniversary of the date of grant, based upon the completion of each month of continuous service as an employee of AgeX or a subsidiary.

(6) One fourth of the options vested on November 15, 2018, and the balance of the options will vest in 36 equal monthly installments thereafter, based upon the completion of each month of continuous service as an employee or director of AgeX.

Risk Considerations and Recoupment Policies

The Compensation Committee of our Board of Directors considers, in establishing and reviewing the executive compensation program, whether the program encourages unnecessary or excessive risk taking. Most of our executive compensation arrangements include a fixed salary that provides a steady income so that executives do not feel pressured to focus exclusively on stock price performance or short term financial targets to the detriment of our long-term operational and strategic objectives. We supplement fixed salaries with discretionary bonus awards based on the executive's performance as well as the performance of AgeX. The stock options that we have granted to our executive officers under the Incentive Plan vest over four to five years, assuring that the executives take a long-term perspective in viewing their equity ownership. Our compensation arrangement with our Chief Financial Officer provides a weekly fee of $1,500 plus an hourly fee for services in excess of one day per week. We have not granted stock options to our Chief Financial Officer.

Because we have not adopted compensation plans, or made incentive awards, based on quantified financial performance measures, we have not adopted specific policies regarding the adjustment or recovery of awards or payments if the relevant performance measures are restated or otherwise adjusted in a manner that would reduce the size of an award or payment. We may adopt such policies, however, if we adopt incentive compensation plans or grant incentive bonuses based on financial performance measures or if we are required to do by the rules of any national securities exchange or interdealer quotation system on which our common stock or other equity securities are listed.

Equity Incentive Plan

The following summary of the Incentive Plan is a summary only and does not purport to include all of the terms of the Incentive Plan, and is qualified by the full terms of the Incentive Plan. The Incentive Plan permits us to grant awards ("Awards") consisting of stock options, the grant or sale of restricted stock ("Restricted Stock"), the grant of stock appreciation rights ("SARs"), and the grant of hypothetical units issued with reference to our common stock ("Restricted Stock Units"), for up to 4,000,000 shares of our common stock. Awards may be granted under the Incentive Plan to employees, directors, and consultants of AgeX and our subsidiaries, including also subsidiaries that we may form or acquire in the future. The Incentive Plan will be administered by our Board of Directors (the "Board") or by a committee authorized by our Board ("Committee"), who will make all determinations with regard to the grant and terms of Awards, subject to the terms of the Incentive Plan.

Awards may vest and thereby become exercisable or have restrictions on forfeiture lapse on the date of grant or in periodic installments or upon the attainment of performance goals, or upon the occurrence of specified events as determined by the Board or the Committee. The Board or Committee, in its discretion, may accelerate the vesting of an Award after the date of grant.

No person shall be granted, during any one year period, options to purchase, or SARs with respect to, more than 1,000,000 shares in the aggregate, or any Awards of Restricted Stock or Restricted Stock Units with respect to more than 500,000 shares in the aggregate. If an Award is to be settled in cash, the number of shares on which the Award is based shall not count toward the individual share limit.

No Awards may be granted under the Incentive Plan more than ten years after the date upon which the Incentive Plan was adopted by the Board, and no options or SARS granted under the Incentive Plan may be exercised after the expiration of ten years from the date of grant.

Stock Options

Options granted under the Incentive Plan may be either "incentive stock options" within the meaning of Section 422(b) of the Internal Revenue Code of 1986, as amended, or the Code, or "non-qualified" stock options that do not qualify incentive stock options. Incentive stock options may be granted only to employees of AgeX and its subsidiaries. The exercise price of stock options granted under the Incentive Plan must be equal to the fair market of our common stock on the date the option is granted. In the case of an optionee who, at the time of grant, owns more than 10% of the combined voting power of all classes of our stock, the exercise price of any incentive stock option must be at least 110% of the fair market value of our common stock on the grant date, and the term of the option may be no longer than five years. The aggregate fair market value of common stock (determined as of the grant date of the option) with respect to which incentive stock options become exercisable for the first time by an optionee in any calendar year may not exceed $100,000.

The exercise price of an option may be payable in cash or in shares of our common stock having a fair market value equal to the exercise price, or in a combination of cash and common stock, or other legal consideration for the issuance of stock as the Board or Committee may approve.

Generally, options will be exercisable only while the optionee remains an employee, director or consultant, or during a specific period thereafter as approved by the Board or Committee, which will generally be three months, but in the case of the termination of an employee, director, or consultant's services due to death or disability, the period for exercising a vested option shall be extended to the earlier of 12 months after termination or the expiration date of the option.

The number of shares covered by the Incentive Plan, and the number of shares and the exercise price per share of each outstanding option, shall be proportionately adjusted for any increase or decrease in the number of issued and outstanding shares of common stock resulting from a subdivision or consolidation of shares or the payment of a stock dividend, or any other increase or decrease in the number of issued and outstanding shares of common stock effected without receipt of consideration by us.

Restricted Stock and Restricted Stock Units

In lieu of granting options, we may enter into purchase agreements with employees under which they may purchase or otherwise acquire Restricted Stock or Restricted Stock Units subject to such vesting, transfer, and repurchase terms and restrictions as the Board or Committee may determine. We may permit employees or consultants who purchase Restricted Stock to pay for their shares by delivering a promissory note or an installment payment agreement that may be secured by a pledge of their Restricted Stock. We may also issue Restricted Stock for services actually performed by the recipient prior to the issuance of the Restricted Stock.

The Board or Committee may require that Restricted Stock shall be held by us or in escrow pending the expiration or release of the applicable restrictions. Unvested Restricted Stock for which we have not received payment may be forfeited to us, or we may have the right to repurchase unvested shares upon the occurrence of specified events, such as termination of employment.

Subject to the restrictions set by the Board or Committee, a recipient of Restricted Stock generally shall have the rights and privileges of a stockholder, including the right to vote the Restricted Stock and the right to receive dividends; provided that, any cash dividends and stock dividends with respect to the Restricted Stock shall be withheld by us for the recipient's account, and interest may be credited on the amount of the cash dividends withheld at a rate and subject to such terms as determined by the Board or Committee. The cash dividends or stock dividends so withheld and attributable to any particular share of Restricted Stock (and earnings thereon, if applicable) shall be distributed to the recipient in cash or, at the discretion of the Board or Committee, in common stock having a fair market value equal to the amount of such dividends, if applicable, upon the release of restrictions on the Restricted Stock and, if the Restricted Stock is forfeited, the recipient shall have no right to the dividends.

The terms and conditions of a grant of Restricted Stock Units shall be determined by the Board or Committee. No common stock shall be issued at the time a Restricted Stock Unit is granted, and we will not be required to set aside a fund for the payment of any such award. A recipient of Restricted Stock Units shall have no voting rights with respect to the Restricted Stock Units. Upon the expiration of the restrictions applicable to a Restricted Stock Unit, we will either issue to the recipient, without charge, one share of common stock per Restricted Stock Unit or cash in an amount equal to the fair market value of one share of common stock.

At the discretion of the Board or Committee, each Restricted Stock Unit (representing one share of common stock) may be credited with cash and stock dividends paid in respect of one share ("Dividend Equivalents"). Dividend Equivalents shall be withheld by us for the recipient's account, and interest may be credited on the amount of cash Dividend Equivalents withheld at a rate and subject to such terms as determined by the Board or Committee. Dividend Equivalents credited to a recipient's account and attributable to any particular Restricted Stock Unit (and earnings thereon, if applicable) shall be distributed in cash or, at the discretion of the Board or Committee, in common stock having a fair market value equal to the amount of the Dividend Equivalents and earnings, if applicable, upon settlement of the Restricted Stock Unit. If a Restricted Stock Unit is forfeited, the recipient shall have no right to the related Dividend Equivalents.

SARs

An SAR is the right to receive, upon exercise, an amount payable in cash or shares or a combination of shares and cash, as determined by the Board or Committee, equal to the number of shares subject to the SAR that is being exercised, multiplied by the excess of (a) the fair market value of a share of common stock on the date the SAR is exercised, over (b) the exercise price specified in the SAR Award agreement. SARs may be granted either as free standing SARs or in tandem with options, and with such terms and conditions as the Board or Committee may determine. No SAR may be exercised later than 10 years after the date of grant.

The exercise price of an SAR will be determined by the Board or Committee, but shall not be less than 100% of the fair market value of one share of common stock on the date of grant. An SAR granted in conjunction with an option shall have the same exercise price as the related option, shall be transferable only upon the same terms and conditions as the related option, and shall be exercisable only to the same extent as the related option; provided, however, that the SAR by its terms shall be exercisable only when the fair market value per share exceeds the exercise price per share of the SAR or related option. Upon any exercise of an SAR granted in tandem with an option, the number of shares for which the related option shall be exercisable shall be reduced by the number of shares for which the SAR has been exercised. The number of shares for which an SAR issued in tandem with an option shall be exercisable shall be reduced by the number of shares for which the related option has been exercised.

Withholding

To the extent provided by the terms of an Award Agreement or as may be approved by the AgeX Board or Committee, an optionee or recipient of a Restricted Stock or Restricted Stock Unit Award or SAR may satisfy any federal, state or local tax withholding obligation relating to the Award by any of the following means (in addition to our right to withhold from any compensation paid to the Award recipient) or by a combination of such means: (a) tendering a cash payment; (b) authorizing us to withhold shares of common stock from the shares otherwise issuable to the recipient as a result of the exercise or acquisition of shares under the Award, provided, however, that no shares are withheld with a value exceeding the minimum amount of tax required to be withheld by law; or (c) delivering to us previously owned and unencumbered shares of our common stock.

Changes in Shares Under the Plan

In the event of changes in the outstanding common stock or in our capital structure by reason of any stock or extraordinary cash dividend, stock split, reverse stock split, an extraordinary corporate transaction such as any recapitalization, reorganization, merger, consolidation, combination, exchange, or other relevant change in capitalization, the terms of Awards granted under the Incentive Plan, and the maximum number of shares subject to all Awards under the Incentive Plan or with respect to which any one person may be granted Awards during any one year period, will be equitably adjusted or substituted, as to the number, price or kind of shares or other consideration subject to the Awards to the extent necessary to preserve the economic intent of the Awards. In making such adjustments, the Board or Committee shall generally ensure that the adjustments will not constitute a modification, extension or renewal of an incentive stock option within the meaning of Section 424(h)(3) of the Code, and in the case of non-qualified options, ensure that any adjustments will not constitute a modification of such non-qualified options within the meaning of Section 409A of the Code, and that adjustments or substitutions of Awards intended to qualify as "performance-based compensation" under Section 162(m) of the Code will not cause us to be denied a tax deduction on account of Section 162(m) of the Code.

Restrictions on Transfers of Options

Under the Plan, stock options may be transferred to a limited class of defined "Permitted Transferees," such as the option holder's immediate family members, family trusts and family controlled companies. In addition, options may be transferred to a securities broker/dealer to exercise the options on the option holder's behalf as a means of the option holder obtaining the funds needed to exercise the option, provided that the fair market value of the shares being acquired exceeded the exercise price of the option at the close of the market on the trading day preceding the exercise date.

Repricing Prohibition

The Plan prohibits any modification of the purchase price or exercise price of an outstanding option or other Award if the change would effect a "repricing' without stockholder approval. As defined in the Plan, "repricing" means a reduction in the exercise price of an outstanding option or SAR or cancellation of an "underwater" or "out-of-the-money" Award in exchange for other Awards or cash. An "underwater" or "out-of-the-money" Award is defined to mean an Award for which the exercise price is less than the "fair market value" of our common stock. The fair market value will generally be determined by the AgeX Board, but if our common stock becomes publicly traded, the fair market value will be the closing price of the common stock on a national securities exchange or inter-dealer quotation system on which the common stock is traded.

Limitation on Share Recycling

Shares subject to an Award shall not again be made available for issuance or delivery under the Incentive Plan if those shares are (a) shares tendered in payment of an option, (b) shares delivered or withheld by us to satisfy any tax withholding obligation, (c) shares covered by a stock-settled SAR or other Award that were not issued upon the settlement of the Award, or (d) shares repurchased by us using the proceeds from option exercises. Only shares subject to an Award that is cancelled or forfeited or expires prior to exercise or realization may be regranted under the Incentive Plan.

The foregoing description of the Incentive Plan is qualified in its entirety by reference to the Incentive Plan, a copy of which is filed as an Exhibit to our Registration Statement on Form 10 and is incorporated herein by reference.

Other Compensation Plans

We do not have any pension plans, defined benefit plans, or non-qualified deferred compensation plans. We may make contributions to 401(k) plan accounts for participating executive officers and other employees.

Compensation of Directors

Directors and members of committees of the Board of Directors who are our employees are entitled to receive compensation as employees but are not compensated for serving as directors or attending meetings of the Board or committees of the Board. All directors are entitled to reimbursements for their out-of-pocket expenses incurred in attending meetings of the Board or committees of the Board.

The following table summarizes certain information concerning the compensation paid during the past fiscal year to each of the persons who served as directors during the year ended December 31, 2019 and who were not our employees on the date the compensation was earned.

Name	Fees Earned Or Paid in Cash	Option Awards[(1)]	All Other Compensation	Total
Gregory Bailey	$ 60,000	$ 270,647	$ -	$ 330,647
Annalisa Jenkins	$ 40,027	$ 270,647	$ -	$ 310,674
John Mauldin[(2)]	$ 40,000	$ 175,920	$ -	$ 215,920
Michael May	$ 14,288	$ 22,223	$ -	$ 36,511
Michael Mulroy[(3)]	$ 26,075	$ 175,920	$ -	$ 201,995

(1) Those of our directors who were serving on our Board of Directors on March 11, 2019 and who were not our salaried employees each received an annual award of stock options on that date entitling them to purchase common stock at a fixed price as partial compensation for serving on our Board. Dr. Bailey and Dr. Jenkins, who had not received a grant of options upon joining the Board the previous year, each received 100,000 stock options while Mr. Mauldin and Mr. Mulroy each received 65,000 stock options. Those options will vest and become exercisable in equal quarterly installments over a one-year period from the date of grant.

Dr. May received 26,534 stock options upon his appointment as a member of our Board of Directors. on August 5, 2019. The options vested and became exercisable in two equal quarterly installments on September 30 and December 31, 2019.

The dollar amounts in this column represent the aggregate fair market value of such awards determined based on the price of our common stock on the grant date in accordance with ASC Topic 718, Compensation-Stock Compensation (ASC Topic 718). See Note 13 Stock-Based Awards to our Consolidated Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2019 for details as to the assumptions used to determine the fair value of the awards.

(2) Mr. Mauldin resigned from our Board of Directors on March 12, 2020. On that date, 100,000 options were vested and will expire if not exercised within 90 days from his resignation date.

(3) Mr. Mulroy resigned from our Board of Directors on July 30, 2019. On that date, 32,500 unvested options were immediately forfeited and the remaining 67,500 vested options expired on October 28, 2019, 90 days from the resignation date.

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

Security Ownership of Certain Beneficial Owners

The following table sets forth information concerning beneficial ownership of our common stock, as of March 25, 2020 by each stockholder known by us to be the beneficial owner of 5% or more of our outstanding shares of common stock. Information concerning certain beneficial owners of more than 5% of the common shares is based upon information disclosed by such owners in their reports on Schedule 13D or Schedule 13G. Except as otherwise noted in the notes to the table below, each person or entity identified in the table below has sole voting and investment power with respect to the securities owned by such person or entity. Beneficial ownership is determined in accordance with the rules of the SEC.

Name and Address of Beneficial Owner	Number of Shares	Percent of Total
Juvenescence Limited 4th Floor, Viking House Nelson Street Isle of Man IM1 2A	16,569,000(1)	43.8%
Broadwood Partners, L.P. Broadwood Capital, Inc. Neal Bradsher 724 Fifth Avenue, 9th Floor New York, NY 10019	3,003,446(2)	8.0%
IBS Capital LLC The IBS Turnaround Fund, L.P. The IBS Turnaround Fund (QP) (A Limited Partnership) The IBS Opportunity Fund, Ltd. David A. Taft One International Place, Suite 3120 Boston, Massachusetts 02110	2,711,746(3)	7.2%

(1) Includes warrants to purchase 150,000 shares of AgeX common stock. These warrants are exercisable at $2.60 per share and expire on August 12, 2022.

(2) Includes 2,997,156 shares owned by Broadwood Partners, L.P. and 6,290 shares owned by Neal Bradsher. Broadwood Capital, Inc. is the general partner of Broadwood Partners, L.P. Neal Bradsher is the President of Broadwood Capital, Inc. Mr. Bradsher and Broadwood Capital, Inc. have disclaimed beneficial ownership of the shares owned by Broadwood Partners, L.P. except to the extent of their respective pecuniary interests in such shares.

(3) Includes 830,850 shares owned by The IBS Turnaround Fund, L.P., 1,701,106 shares owned by The IBS Turnaround Fund (QP) (A Limited Partnership), and 179,790 shares owned by The IBS Opportunity Fund, Ltd., all of which shares are also deemed to be beneficially owned by IBS Capital LLC as the manager of the owners and by David Taft as President and majority owner of the manager.

Security Ownership of Management

The following table sets forth information as of March 25, 2020 concerning beneficial ownership of common shares known by us by each member of the Board of Directors, all Named Executive Officers, and all executive officers and directors as a group. Except as otherwise noted in the notes to the table below, each person or entity identified in the table below has sole voting and investment power with respect to the securities owned by such person or entity. Beneficial ownership is determined in accordance with the rules of the SEC.

Name	Number of Shares	Percent
Michael D. West[1]	856,548	2.2%
Russell L. Skibsted	935	*
Nafees Malik[2]	158,958	*
Hal Sternberg[3]	34,819	*
Gregory Bailey[4]	100,000	*
Annalisa Jenkins[4]	100,000	*
Michael H. May[5]	26,534	*
Directors and Executive Officers as a Group (7 persons)[6]	1,277,794	3.3%

* Less than 1%

(1) Includes 832,082 shares that may be acquired upon the exercise of certain stock options that are presently exercisable or that will become exercisable within 60 days. Excludes 427,918 shares that may be acquired upon the exercise of certain stock options that are not presently exercisable and that will not become exercisable within 60 days, and 37,500 Restricted Stock Units that are not presently vested and will not vest within 60 days.

(2) Excludes 261,042 shares that may be acquired upon the exercise of certain stock options that are not presently exercisable and that will not become exercisable within 60 days.

(3) Includes 34,686 shares of common stock that may be acquired upon the exercise of certain stock options that are presently exercisable or that will become exercisable within 60 days. Excludes 30,314 shares that may be acquired upon the exercise of certain stock options that are not presently exercisable and that will not become exercisable within 60 days.

(4) Includes 100,000 shares that may be acquired upon the exercise of certain stock options that are presently exercisable or that will become exercisable within 60 days.

(5) Includes 26,534 shares that may be acquired upon the exercise of certain stock options that are presently exercisable or that will become exercisable within 60 days.

(6) Includes 1,252,260 shares that may be acquired upon the exercise of certain stock options and warrants that are presently exercisable or that will become exercisable within 60 days. Excludes 719,274 shares that may be acquired upon the exercise of certain stock options that are not presently exercisable and that will not become exercisable within 60 days and 37,500 Restricted Stock Units that are not presently vested and will not vest within 60 days.

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

Agreements with Lineage and its Subsidiaries

Asset Contribution Agreement

On August 17, 2017, we entered into an Asset Contribution and Separation Agreement (the "Asset Contribution Agreement") with our former parent company Lineage pursuant to which Lineage contributed certain assets and cash to us in exchange for 28,800,000 shares of our common stock. Concurrently with the acquisition of assets from Lineage, we sold 4,950,000 shares of common stock for $10.0 million in cash primarily to investors other than Lineage, which included 600,000 shares sold to Alfred D. Kingsley, the Chairman of Lineage's board of directors and our former Executive Chairman, 125,000 shares sold to John Mauldin who later became a member of our Board of Directors, and 16,000 shares sold to Lineage at the same price per share paid by other investors. At the close of the financing, Lineage owned 85.4% of our issued and outstanding shares of common stock.

Certain License and Sublicense Agreements

Concurrently with the contribution of assets to us by Lineage under the Asset Contribution Agreement, we entered into a License Agreement with Lineage pursuant to which Lineage has licensed to us, with rights to sublicense, certain intellectual property, including patents and patent applications and know-how for use in the development, manufacture and commercialization of products or services for the prevention, treatment, amelioration, diagnosis or monitoring of all human and non-human animal diseases and conditions except for the field of medical products, devices and services for the reserved Lineage fields of orthopedic, ophthalmic, and medical aesthetic uses (the "Lineage Exclusive Field"). In addition, Lineage retains an option right, on terms to be negotiated, to license iTR patents in research, development, manufacturing and commercialization of treatments based on iTR in the Lineage Exclusive Field. The licensed patents and know-how relate generally to (a) *PureStem*® human embryonic progenitor cell lines, and (b) telomere length and DNA quality control analysis in pluripotent stem cells. We also received an option to license certain Lineage retained rights outside of orthopedic indications unless a license grant would compete with a Lineage program or products in the Lineage Exclusive Field.

The License Agreement contains customary provisions pertaining to patent maintenance, enforcement, and defense and related cost allocations, insurance, indemnification, and termination of the license in the event of a breach or default by a party, or the bankruptcy or other insolvency event with respect to a party.

Additional License and Sublicense Agreements

Lineage and certain Lineage subsidiaries also entered into agreements pursuant to which they have licensed or sublicensed to us, on a non-exclusive, world-wide, royalty bearing basis, certain additional patents and patent rights and know-how relating to *HyStem*® hydrogel technology, human embryonic progenitor cell technology, and human pluripotent stem cell lines and technology for use outside the Lineage Exclusive Fields, or in the case of certain sublicense rights, fields previously licensed to third parties.

HyStem® *Patent License and Sublicense*

Lineage has granted to us a sublicense of certain patents licensed to Lineage by the University of Utah Research Foundation (the "Utah Sublicense"), and has granted to us a direct license of certain patents held by Lineage (the "HyStem License"), related to *HyStem*® hydrogel technology for use outside of the Lineage Exclusive Field for products that include cells and that are covered by certain other patents contributed, licensed, or sublicensed to us by Lineage. We may only develop, sell, and otherwise commercialize a product under the Utah Sublicense and HyStem License if we spend at least a low seven figure amount on research with respect to the product. Lineage will agree to provide us with a reasonable amount of the hydrogel product for the purpose of our research for which we will pay Lineage's cost of manufacturing and supplying the hydrogel.

The Utah Sublicense and HyStem License will expire upon the latest expiration date of a sublicensed or licensed patent, unless terminated earlier pursuant to the respective agreements. We will pay Lineage a royalty, in an amount not exceeding 10 percent, on "net sales" as defined in the Utah Sublicense and HyStem License. Commencing June 30, 2019, and for each 12-month period thereafter, we will pay Lineage a minimum royalty in the low five figures regardless of the actual amount of net sales for the applicable period.

Sublicense of Certain Progenitor Patents

Lineage has granted to us a sublicense of certain patents licensed to Lineage that pertain to the derivation of human embryonic progenitor cell lines. The sublicense will permit us to use the sublicensed patents for the treatment, palliation, diagnosis, or prevention of any disease, disorder or health condition outside of the Lineage Exclusive Field. The sublicense expires on the later of July 10, 2028 or the latest expiration date of a sublicensed patent, unless terminated earlier pursuant to the terms of the sublicense.

We will pay Lineage a royalty on "net sales," as defined in the sublicense agreement, until the royalty payments to Lineage's licensor by Lineage total $1.2 million and thereafter will pay to Lineage a low single digit royalty on its own net sales and a low double-digit royalty on sublicensing consideration. If we grant a sublicense to use the patents, we will pay Lineage a portion of any consideration received for a sublicense, including but not limited to, upfront payments and milestones, and non-cash exchanges or considerations, but not payments for developing a product, service or process. If we become obligated to pay royalties to one or more affiliates of Lineage for the use of patent rights related to this sublicense and as a result, the royalties payable to Lineage with respect to royalties under the sublicense plus the royalties payable to the affiliates would exceed a designated amount of net sales, the royalties due to Lineage may be reduced but not less than the designated amount. In addition, we will pay to Lineage a royalty on "net sales," as defined in the sublicense agreement, by the sublicensee. If we become obligated to pay royalties to one or more affiliates of Lineage for the use of patent rights related to this sublicense and as a result, the royalties payable to Lineage with respect to sales by a sublicensee plus the royalties payable to the affiliates would exceed a designated amount of net sales, the royalty due on net sales by the sublicensee may be reduced but not less than the designated amount.

The sublicense agreement includes reciprocal cross-licenses between Lineage and us with respect to any new patents that may be issued based on the use of the sublicensed patents. Any such license to Lineage will be exclusive in the Lineage Exclusive Field and nonexclusive in all other licensed fields. Any such license from Lineage to us will be for use outside the Lineage Exclusive Field and for medical products or services involving tendon. Each license will be for a term of 10 years.

ESI License

Lineage's subsidiary ES Cell International Pte ("ESI") has granted to us non-exclusive rights to certain ESI patents and human pluripotent stem cell lines ("ESI Cell Lines") for use outside of the Lineage Exclusive Field and outside certain other fields for which ESI has previously granted licenses. We will pay ESI a royalty, in an amount not exceeding 10 percent, on "net sales," as defined in the license agreement. If we become obligated to pay royalties to one or more third party or to Lineage for the use of patent rights related to this license and as a result the royalties payable to ESI with respect to this license agreement plus the royalties payable to such third party or Lineage would exceed a designated amount of net sales, the royalty due on net sales by the sublicensee may be reduced. The patent license expires upon the latest expiration date of a licensed patent, unless terminated earlier pursuant to the terms of the license. All other rights under the license are terminable by either party under the conditions specified in the license.

If we grant rights to any third party to use ESI Cell Lines derived under cGMP, we will pay ESI a share of all consideration that we receive as consideration for the grant of those rights, including all cash and non-cash consideration but not royalties. We are not permitted to grant sublicenses to the licensed ESI patents but may sublicense the use of ESI Cell Lines.

Shared Facilities Agreement and Relationship with Lineage

On August 17, 2017, AgeX and Lineage executed the Shared Facilities Agreement. Under the terms of the Shared Facilities Agreement, Lineage allowed AgeX to use Lineage's premises and equipment located in Alameda, California for the purpose of conducting business. Lineage also provided accounting, billing, bookkeeping, payroll, treasury, payment of accounts payable, and other similar administrative services to AgeX. We terminated the Shared Facilities Agreement effective September 30, 2019.

Lineage charged AgeX a use fee for services received and usage of facilities, equipment, and supplies ("Use Fee"). For each billing period, Lineage prorated and allocated to AgeX costs of services of Lineage employees, equipment, insurance, lease, professional, software, supplies and utilities. Allocation depended on key cost drivers including actual documented use, square footage of facilities used, time spent, costs incurred by or for AgeX, or upon proportionate usage by Lineage and AgeX, as reasonably estimated by Lineage. Lineage charged a 5% markup on such allocated costs as permitted by the Shared Facilities Agreement. The allocated cost of Lineage employees and contractors who provided services was based upon records maintained of the number of hours or percentage of time of such personnel devoted to the performance of services.

The Use Fee was determined and invoiced to AgeX on a monthly basis for each calendar month of each calendar year. In addition to the Use Fees, AgeX reimbursed Lineage for any out of pocket costs incurred by Lineage for the purchase of office supplies, laboratory supplies, and other goods and materials and services for the account or use of AgeX.

In aggregate, Lineage charged such Use Fees to AgeX and subsidiaries as follows (in thousands):

	Year Ended December 31,	
	2019	**2018**
Research and development	$ 701	$ 1,278
General and administrative	239	400
Total Use Fees	$ 940	$ 1,678

As of December 31, 2019, Lineage owed AgeX approximately $7,000, while as of December 31, 2018 AgeX owed Lineage approximately $34,000 under the Shared Facilities Agreement. See Note 4. Related Party Transactions to our historical audited consolidated financial statements included elsewhere in this Report.

Employee Matters Agreement

We entered into an Employee Matters Agreement with Lineage that governs the respective rights, responsibilities and obligations of Lineage and us after the Distribution with respect to transferred employees, defined contribution plans, employee health and welfare benefit plans, incentive plans, and other employment, compensation and benefits-related matters. The Employee Matters Agreement provides for, among other things, the allocation and treatment of assets and liabilities arising out of incentive plans, retirement plans and employee health and welfare benefit plans in which certain of our employees participated prior to the Distribution.

Tax Matters Agreement

We entered into a Tax Matters Agreement with Lineage that governs the parties' respective rights, responsibilities and obligations with respect to tax liabilities and benefits, tax attributes, the preparation and filing of tax returns, allocation of tax refunds, the control of audits and other tax proceedings and other matters regarding taxes while we were part of a consolidated group with Lineage for income tax purposes, and after our deconsolidation from Lineage's consolidated tax group, for any tax period ending on or before the Distribution Date, as well as tax periods beginning before and ending after the Distribution Date.

In general, the Tax Matters Agreement allocates taxes between Lineage and the subsidiary companies that comprise its consolidated group or the "Lineage Group" on the one hand and AgeX and our subsidiaries or the "AgeX Group" on the other hand. Lineage will be responsible for any U.S. federal, state and local taxes (and any related interest, penalties or audit adjustments) for the Lineage Group, and we will be responsible for any U.S. federal, state and local taxes (and any related interest, penalties or audit adjustments) for the AgeX Group for any periods or portions thereof beginning on or after August 31, 2017 based on certain assumptions, including that the AgeX Group is not included in the Lineage consolidated tax returns. Lineage will also determine the extent to which certain tax attributes attributable to the Lineage Group resulted in tax savings to the AgeX Group and we will pay the amount of that tax savings to Lineage, or if tax attributes attributable to the AgeX Group resulted in tax savings to the Lineage Group, Lineage will pay the amount of that tax savings to us. The Tax Matters Agreement also may provide special rules for allocating tax liabilities resulting from the Distribution.

Related Party Payables

Since inception, our subsidiaries ReCyte Therapeutics, Inc. ("ReCyte Therapeutics") and LifeMap Sciences, Inc. ("LifeMap Sciences"), and a former subsidiary of LifeMap Sciences, LifeMap Solutions, Inc. ("LifeMap Solutions"), had accumulated related party payables due to Lineage, mainly comprised of working capital advances and shared services provided under the Shared Facilities Agreement that Lineage had performed for the benefit of, and charged to these subsidiaries. Shared services under the Shared Facilities Agreement included both services and facilities provided by Lineage, including space for research, laboratory and administrative offices, administrative and financial services such as human resources, general bookkeeping, payroll and financial reporting.

Sale of Common Stock

On June 7, 2018, we sold 2,000,000 shares of common stock for $2.50 per share to Juvenescence for aggregate cash proceeds of $5.0 million.

Sales of Warrants

During 2018, we sold warrants to purchase 2,000,000 shares of common stock for $0.50 per warrant for aggregate cash proceeds of $1,000,000 to certain investors. The warrants entitled the warrant holders to purchase shares of our common stock for $2.50 per share. Alfred D. Kingsley, our former Executive Chairman, purchased warrants entitling him to purchase 248,600 shares of AgeX common stock, and John Mauldin who later became a member of our Board of Directors purchased warrants entitling him to purchase 50,000 shares of AgeX common stock, on the same terms as the other investors. Mr. Kingsley exercised his warrants during March 2019 and purchased 248,600 shares of common stock for $621,500.

Registration Rights Agreement

We have agreed to register for sale under the Securities Act of 1933, as amended (the "Securities Act") certain shares of common stock, including all shares held by Juvenescence, Lineage and Alfred D. Kingsley, and shares beneficially owned by John Mauldin. We have agreed to file a registration statement, including on Form S-3 once we are eligible to use such form for offerings on a delayed or continuous basis, covering those shares following a written request for registration from any holder or group of holders of not less than 50% of the shares covered by the Registration Rights Agreement, but not earlier than November 28, 2019, which is the first anniversary date of the Distribution. We are obligated to pay the fees and expenses of each registered offering under such registration rights agreement except for underwriting discounts and commissions.

Compensation of Our Chief Operating Officer

Since October 2018, AgeX's Chief Operating Officer, Nafees Malik, who is an employee of Juvenescence, has been devoting a majority of his time to AgeX's operations for which AgeX reimburses Juvenescence for his services on an agreed upon fixed annual rate of $272,000 from October 18, 2018 through March 10, 2019 and $283,000 from March 11, 2019 through December 31, 2019. Additionally, Dr. Malik received a $50,000 bonus in March 2019. As of December 31, 2019 AgeX had accrued approximately $71,000 payable to Juvenescence for Dr. Malik's services rendered.

2019 Loan Facility Agreement and Warrant Agreement

On August 13, 2019 AgeX and Juvenescence entered into a Loan Facility Agreement (the "Loan Agreement") pursuant to which Juvenescence provided AgeX a $2.0 million line of credit for a period of 18 months. As of March 30, 2020, AgeX had drawn all of the $2.0 million.

In lieu of interest, AgeX issued to Juvenescence 19,000 shares of AgeX common stock concurrently with the first draw down of funds under the Loan Agreement. However, if AgeX fails to repay the loan when due, interest at the rate of 10% per annum, compounded daily, will accrue on the unpaid balance from the date the payment was due.

In lieu of repayment of funds borrowed, AgeX or Juvenescence may convert the loan balance (including principal and accrued interest, if any) into AgeX common stock or "units" if AgeX consummates a "Qualified Offering" which means a sale of common stock (or common stock paired with warrants or other convertible securities in "units") in which the gross sale proceeds are at least $7.5 million.

Events of Default under the Loan Agreement include: (i) AgeX fails to pay any amount in the manner and at the time provided in the Loan Agreement and the failure to pay is not remedied within 10 business days; (ii) AgeX fails to perform any of its obligations under the Loan Agreement and if the failure can be remedied it is not remedied to the satisfaction of Juvenescence within 10 business days after notice to AgeX; (iii) other indebtedness for money borrowed in excess of $100,000 becomes due and payable or can be declared due and payable prior to its due date or if indebtedness for money borrowed in excess of $25,000 is not paid when due; (iv) AgeX stops payment of its debts generally or discontinues its business or becomes unable to pay its debts as they become due or enters into any arrangement with creditors generally, (v) AgeX becomes insolvent or begins liquidation or administration or other insolvency procedures, or a receiver, trustee or similar officer is appointed in respect of all or any part of its assets and such appointment continues undischarged or unstayed for sixty days, (vi) it becomes illegal for AgeX to perform its obligations under the Loan Agreement or any governmental permit, license, consent, exemption or similar requirement for AgeX to perform its obligations under the Loan Agreement or to carry out its business is not obtained or ceases to remain in effect; (vii) the issuance or levy of any judgment, writ, warrant of attachment or execution or similar process against all or any material part of the property or assets of AgeX if such process is not released, vacated or fully bonded within sixty calendar days after its issue or levy; (viii) any injunction, order or judgement of any court is entered or issued which in the opinion of Juvenescence materially and adversely affects the ability of AgeX to carry out its business or to pay amounts owed to Juvenescence under the Loan Agreement, and (ix) there is a change in AgeX's financial condition that in the opinion of Juvenescence materially and adversely affects, or is likely to so affect, its ability to perform any of its obligations under the Loan Agreement.

As consideration for the line of credit under the Loan Agreement, AgeX issued to Juvenescence warrants to purchase 150,000 shares of AgeX common stock. The exercise price of the warrants is $2.60 per share, which was the volume weighted average price on the NYSE American (VWAP) of AgeX common stock over the twenty trading days prior to the date the warrants were issued. The warrants will expire at 5:00 p.m. New York Time three years after the date of issue. The number of shares issuable upon exercise of the warrants and the exercise price per share are subject to adjustment upon the occurrence of certain events such as a stock split or reverse split or combination of the common stock, stock dividend, recapitalization or reclassification of the common stock, and similar events.

AgeX has entered into a Registration Rights Agreement to register the 19,000 shares issuable under the Loan Agreement and the 150,000 warrants and underlying shares for resale under the Securities Act, upon request of Juvenescence if Form S-3 is available to AgeX. Juvenescence will also have "piggy-back" registration rights if AgeX files a registration statement for the sale of shares for itself or other stockholders. AgeX will bear the expenses of the registration statement but not underwriting or broker's commissions related to the sale of warrants or shares. AgeX and Juvenescence will indemnify each other from certain liabilities in connection the registration, offer, and sale of securities under a registration statement, including liabilities arising under the Securities Act.

New Loan Agreement and New Warrant Agreement

On March 30, 2020 AgeX and Juvenescence entered into a the New Loan Agreement pursuant to which Juvenescence has agreed to provide to AgeX an $8.0 million line of credit for a period of 18 months on substantially the same terms as the Loan Agreement described in Note 4, except that (a) all loans to AgeX under the New Loan Agreement in excess of an initial $500,000 advance are subject to Juvenescence's discretion, (b) AgeX may not draw more than $1 million in any single draw, (c) in lieu of accrued interest, AgeX will issue to Juvenescence 28,500 shares of AgeX common stock when AgeX has borrowed an aggregate of $3 million under the New Loan Agreement, (d) AgeX will issue to Juvenescence warrants to purchase shares of AgeX common stock ("New Warrants") in amounts determined by the warrant formula described below, (e) the Repayment Date for outstanding principal balance of the loan under the New Loan Agreement will be March 30, 2023, (f) if AgeX requests additional loans after making the first two draws of funds (which are expected to total $1 million) under the New Loan Agreement, a Security and Pledge Agreement (the "Security Agreement") will go into effect granting Juvenescence a security interest in all of the assets of AgeX and and Agex's subsidiaries ReCyte Therapeutics and Reverse Bioengineering, Inc. (the "Guarantor Subsidiaries" or each a "Guarantor Subsidiary"), (g) the Guarantor Subsidiaries will guarantee AgeX's obligations under the New Loan Agreement if AgeX makes more than two draws of funds under the New Loan Agreement and (h) Juvenescence has the right to convert the principal amount of outstanding loans under the New Loan Agreement into shares of AgeX common stock at the Market Price as defined in the New Loan Agreement. Further, in addition to the Events of Default described in Note 4, additional Events of Default will arise under the New Loan Agreement if (i) AgeX or any of the Guarantor Subsidiaries sells, leases, licenses, consigns, transfers, or otherwise disposes of a material part of its assets other than inventory in the ordinary course of business or certain intercompany transactions, or certain other limited permitted transactions, unless Juvenescence approves, (ii) the security interests under the Security Agreement, if in effect, are not valid or perfected, or AgeX or a Guarantor Subsidiary contests the validity of its obligations under the New Loan Agreement or Security Agreement or other related agreement with Juvenescence, or there is a loss, theft, damage or destruction of a material portion of the collateral, (iii) any representation, warranty, or other statement made by AgeX or a Guarantor Subsidiary under the New Loan Agreement is incomplete, untrue, incorrect, or misleading, or (iv) AgeX or a Guarantor Subsidiary suspends or ceases to carry on all or a material part of its business or threatens to do so.

Although the New Loan Agreement provides that Juvenescence may lend us up to $8 million, all loans in excess of the initial $500,000 are subject to Juvenescence's discretion. Juvenescence will require that AgeX implement a plan prior to April 30, 2020 to reduce spending on employee salaries and consulting fees and to pay no bonuses for 2019 in order to borrow more than the initial $500,000, although such additional borrowings will remain subject to Juvenescence's discretion.

Each time AgeX receives an advance of funds under the New Loan Agreement, AgeX will issue to Juvenescence a number of New Warrants equal to 50% of the number determined by dividing the amount of the advance by the applicable Market Price. The Market Price will be the closing price per share of AgeX common stock on the NYSE American or other national securities exchange on the date of the applicable notice from AgeX requesting a draw of funds that triggers the obligation to issue New Warrants; provided, however that if AgeX common stock is not traded on a national securities exchange the Market Price shall be determined with reference to closing prices quoted or bid and asked prices on the OTC Bulletin Board or similar quotation system averaged over twenty consecutive trading days. The exercise price of the New Warrants will be the applicable Market Price. The New Warrants will expire at 5:00 p.m. New York time three years after the date of issue.

AgeX has entered into an amendment to its Registration Rights Agreement described in Note 4 and include the 28,500 shares issuable under the New Loan Agreement and the New Warrants and underlying shares as registrable securities under the Registration Rights Agreement.

Director Independence

Gregory Bailey, Annalisa Jenkins, and Michael May qualify as "independent" in accordance with Section 803(A) of the NYSE American Company Guide. Michael Mulroy who served as a director during 2018 and a portion of 2019, and John Mauldin who served as a director during 2019 and from January 1 until March 12, 2020, also were independent under that standard. The members of our Audit Committee meet the additional independence standards under Section 803(B)(2) of the NYSE American Company Guide and Rule 10A-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). The members of our Compensation Committee meet the additional independence standards under Section 805(c)(1) of the NYSE American Company Guide. Our independent directors received no compensation or remuneration during the last fiscal year for serving as directors except as disclosed under "CORPORATE GOVERNANCE —Compensation of Directors." None of the independent directors, nor any of the members of their respective families, have participated in any transaction with us that would disqualify them as "independent" directors under the standards described above.

Michael D. West does not qualify as "independent" because he serves as our President and Chief Executive Officer. Gregory Bailey does not meet the independence standard for service on the Audit Committee under Exchange Act Rule 10A-3 because he is the Chief Executive Officer of Juvenescence Limited, which is our largest stockholder and owns approximately 44% of our issued and outstanding shares of common stock.

Item 14. Principal Accounting Fees and Services

OUM & Co., LLP ("OUM") has served as our independent registered public accountants since October 2017, and audited our annual financial statements for the fiscal years ended December 31, 2019 and 2018.

Audit Fees, Audit Related Fees, Tax Fees and Other Fees

The following table sets forth the aggregate fees billed to us during the fiscal years ended December 31, 2019 and 2018 by OUM:

	2019	2018
Audit Fees[1]	$ 288,000	$ 232,000
Audit Related Fees[2]	-	74,000
Total Fees[3]	$ 288,000	$ 306,000

(1) Audit Fees consist of fees billed for professional services rendered for the audit of our annual financial statements included in our Registration Statement on Form 10 and services that are normally provided by our independent registered public accountants in connection with statutory and regulatory filings or engagements.

(2) Audit-Related Fees relate to assurance and related services that are reasonably related to the performance of the audit or review of our consolidated financial statements and are not reported under "Audit Fees." This category would include fees related to non-routine SEC filings.

(3) Our former parent company Lineage paid 80% of all audit fees incurred through November 28, 2018, the date on which Lineage distributed approximately 12.7 million shares of AgeX common stock owned by Lineage on a pro rata basis to eligible Lineage shareholders.

Pre-Approval of Audit and Permissible Non-Audit Services

Our Audit Committee requires pre-approval of all audit and non-audit services. Other than *de minimis* services incidental to audit services, non-audit services shall generally be limited to tax services such as advice and planning and financial due diligence services. All fees for such non-audit services must be approved by the Audit Committee, except to the extent otherwise permitted by applicable SEC regulations. The Committee may delegate to one or more designated members of the Committee the authority to grant pre-approvals, provided such approvals are presented to the Committee at a subsequent meeting. During 2019 and 2018, 100% of the fees paid to OUM were approved by the Audit Committee or by our Board of Directors prior to the appointment of our Audit Committee.

PART IV

Item 15. Financial Statement and Exhibits

(a) Financial Statements.

The following financial statements of AgeX are filed in this Report:

Consolidated Balance Sheets
Consolidated Statements of Operations
Consolidated Statements of Comprehensive Loss
Consolidated Statements of Stockholders' Equity
Consolidated Statements of Cash Flows
Notes to Consolidated Financial Statements

(b) Exhibits.

Exhibit Number	Exhibit Description
2.1	Asset Purchase Agreement, dated as of August 13, 2018, by and between Escape Therapeutics, Inc. and AgeX Therapeutics, Inc. #+ (Incorporated by reference to AgeX Therapeutics, Inc.'s Form 10-12(b) A-2 filed with the Securities and Exchange Commission on August 30, 2018)
3.1	Certificate of Incorporation (Incorporated by reference to AgeX Therapeutics, Inc.'s Form 10-12(b) filed with the Securities and Exchange Commission on June 8, 2018)
3.2	Bylaws (Incorporated by reference to AgeX Therapeutics, Inc.'s Form 10-12(b) filed with the Securities and Exchange Commission on June 8, 2018)
4.1	Specimen of Common Stock Certificate (Incorporated by reference to AgeX Therapeutics, Inc.'s Form 10-12(b) A-2 filed with the Securities and Exchange Commission on August 30, 2018)
4.2	Warrant dated August 13, 2019 (Incorporated by reference to AgeX Therapeutics, Inc. Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 14, 2019)
4.3	Description of Securities*
10.1	Asset Contribution and Separation Agreement, dated August 17, 2017, between Lineage Cell Therapeutics, Inc. and AgeX Therapeutics, Inc. #. (Incorporated by reference to Lineage's Quarterly Report on Form 10-Q for the quarter ended September 30, 2017)
10.2	License Agreement, dated August 17, 2017, between Lineage Cell Therapeutics, Inc. and AgeX Therapeutics, Inc.# (Incorporated by reference to Lineage's Quarterly Report on Form 10-Q for the quarter ended September 30, 2017)
10.3	AgeX Therapeutics, Inc. 2017 Equity Incentive Plan (Incorporated by reference to AgeX Therapeutics, Inc.'s Registration Statement on Form S-8 filed with the Securities and Exchange Commission on January 30, 2019).
10.4	Form of AgeX Therapeutics, Inc. Employee Stock Option Agreement (Incorporated by reference to AgeX Therapeutics, Inc.'s Registration Statement on Form S-8 filed with the Securities and Exchange Commission on January 30, 2019)
10.5	Form of AgeX Therapeutics, Inc. Non-Employee Director Stock Option Agreement (Incorporated by reference to AgeX Therapeutics, Inc.'s Registration Statement on Form S-8 filed with the Securities and Exchange Commission on January 30, 2019)
10.6	Form of AgeX Therapeutics, Inc. Restricted Stock Agreement (Incorporated by reference to AgeX Therapeutics, Inc.'s Registration Statement on Form S-8 filed with the Securities and Exchange Commission on January 30, 2019)

10.7	Form of AgeX Therapeutics, Inc. Restricted Stock Unit Agreement (Incorporated by reference to AgeX Therapeutics, Inc.'s Registration Statement on Form S-8 filed with the Securities and Exchange Commission on January 30, 2019)
10.8	Sublicense Agreement, dated September 26, 2017, between Lineage Cell Technology, Inc. and AgeX Therapeutics, Inc. # (Incorporated by reference to AgeX Therapeutics, Inc.'s Form 10-12(b) A-1 filed with the Securities and Exchange Commission on July 19, 2015)
10.9	First Amendment, dated November 8, 2017, to License Agreement, dated August 17, 2017, between Lineage Cell Therapeutics, Inc. and AgeX Therapeutics, Inc. (Incorporated by reference to AgeX Therapeutics, Inc.'s Form 10-12(b) A-1 filed with the Securities and Exchange Commission on July 19, 2015)
10.10	Sublicense Agreement, dated August 17, 2017, by and among OrthoCyte Corporation, Lineage Cell Therapeutics, Inc. and AgeX Therapeutics, Inc. # (Incorporated by reference to AgeX Therapeutics, Inc.'s Form 10-12(b) A-1 filed with the Securities and Exchange Commission on July 19, 2015)
10.11	First Amendment, dated November 8, 2017, to Sublicense Agreement, dated August 17, 2017, between OrthoCyte Corporation, Lineage Cell Therapeutics, Inc. and AgeX Therapeutics, Inc. (Incorporated by reference to AgeX Therapeutics, Inc.'s Form 10-12(b) A-1 filed with the Securities and Exchange Commission on July 19, 2015)
10.12	License Agreement, dated August 17, 2017, by and between ES Cell International Ptd Ltd., Lineage Cell Therapeutics, Inc. and AgeX Therapeutics, Inc. # (Incorporated by reference to AgeX Therapeutics, Inc.'s Form 10-12(b) A-1 filed with the Securities and Exchange Commission on July 19, 2015)
10.13	Employee Matters Agreement, dated August 17, 2017, between Lineage Cell Therapeutics, Inc. and AgeX Therapeutics, Inc. (Incorporated by reference to AgeX Therapeutics, Inc.'s Form 10-12(b) A-1 filed with the Securities and Exchange Commission on July 19, 2015)
10.14	Employment Agreement, by and between AgeX Therapeutics, Inc. and Hal Sternberg, dated August 21, 2017 (Incorporated by reference to AgeX Therapeutics, Inc.'s Form 10-12(b) filed with the Securities and Exchange Commission on June 8, 2018)
10.15	Tax Matters Agreement, dated August 17, 2017, between Lineage Cell Therapeutics, Inc. and AgeX Therapeutics, Inc. (Incorporated by reference to AgeX Therapeutics, Inc.'s Form 10-12(b) A-1 filed with the Securities and Exchange Commission on July 19, 2015)
10.16	Form of Registration Rights Agreement. (Incorporated by reference to AgeX Therapeutics, Inc.'s Form 10-12(b) A-1 filed with the Securities and Exchange Commission on July 19, 2015)
10.17	License Agreement, dated August 17, 2017, between Lineage Cell Therapeutics, Inc. and AgeX Therapeutics, Inc. # (Incorporated by reference to AgeX Therapeutics, Inc.'s Form 10-12(b) A-1 filed with the Securities and Exchange Commission on July 19, 2015)
10.18	Employment Agreement, by and between AgeX Therapeutics, Inc. and Michael D. West, dated October 18, 2018. (Incorporated by reference to AgeX Therapeutics, Inc.'s Form 10-12(b) A-3 filed with the Securities and Exchange Commission on October 22, 2018)
10.19	Compensation Agreement, dated March 1, 2019, between AgeX Therapeutics, Inc. and Russell Skibsted (Incorporated by reference to AgeX Therapeutics, Inc. Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on May 15, 2019)
10.20	Standard Sublease, dated for reference March 13, 2019, between AgeX Therapeutics, Inc. and InSite Vision, Inc. (Incorporated by reference to AgeX Therapeutics, Inc. Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on May 15, 2019)
10.21	Loan Facility Agreement, dated August 13, 2019, between AgeX Therapeutics, Inc. and Juvenescence Limited (Incorporated by reference to AgeX Therapeutics, Inc. Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 14, 2019)
10.22	Warrant Agreement, dated August 13, 2019, between AgeX Therapeutics, Inc. and Juvenescence Limited, including form of warrant (Incorporated by reference to AgeX Therapeutics, Inc. Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 14, 2019)

10.23	Registration Rights Agreement, dated August 13, 2019, between AgeX Therapeutics, Inc. and Juvenescence Limited (Incorporated by reference to AgeX Therapeutics, Inc. Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 14, 2019)
10.24	Secured Convertible Facility Agreement, dated March 30, 2020, by and among AgeX Therapeutics, Inc., ReCyte Therapeutics, Inc., Reverse Bioengineering, Inc., and Juvenescence Limited*
10.25	Warrant Agreement, dated March 30, 2020, between AgeX Therapeutics, Inc. and Juvenescence Limited, including form of warrant*
10.26	Amendment No. 1 to Registration Rights Agreement, dated March 30, 2020, between AgeX Therapeutics, Inc. and Juvenescence Limited*
21.1	List of Subsidiaries *
23.1	Consent of OUM & Co. LLP *
31	Rule 13a-14(a)/15d-14(a) Certification *
32	Section 1350 Certification *

* Filed herewith.

\# Confidential treatment has been granted with respect to portions of this exhibit (indicated by asterisks) and those portions have been separately filed by Lineage Cell Therapeutics, Inc. with the Securities and Exchange Commission.

\+ Certain schedules and exhibits to this agreement have been omitted in accordance with Item 601(b)(2) of Regulation S-K. A copy of any omitted schedule and/or exhibit will be furnished to the Securities and Exchange Commission on request.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized on the 30th day of March 2020.

AGEX THERAPEUTICS, INC.

By: */s/ Michael D. West*
Michael D. West
Chief Executive Officer

Signature	Title	Date
/s/ Michael D. West MICHAEL D. WEST	President and Chief Executive Officer and Director (Principal Executive Officer)	March 30, 2020
/s/ Russell Skibsted RUSSELL SKIBSTED	Chief Financial Officer (Principal Financial and Accounting Officer)	March 30, 2020
/s/ Gregory Bailey GREGORY BAILEY	Director	March 30, 2020
/s/ Annalisa Jenkins ANNALISA JENKINS	Director	March 30, 2020
/s/ Michael H. May MICHAEL H. MAY	Director	March 30, 2020

Exhibit 4.3

DESCRIPTION OF SECURITIES

The following description of certain terms of AgeX Therapeutics, Inc. ("AgeX") common stock is a summary and is qualified in its entirety by reference to AgeX's certificate of incorporation and bylaw and by the Delaware General Corporation Law.

Common Stock

The AgeX Certificate of Incorporation currently authorizes the issuance of up to 100,000,000 shares of common stock, par value $0.0001 per share. Each holder of record of common stock is entitled to one vote for each outstanding share owned, on every matter properly submitted to the stockholders for their vote, including election or removal of directors elected by AgeX stockholders generally. The holders of AgeX common stock do not have cumulative voting rights in the election of directors.

Subject to the dividend rights of holders of any of the preferred stock that may be issued from time to time, holders of common stock are entitled to any dividend declared by the AgeX Board of Directors out of funds legally available for that purpose.

Subject to the prior payment of the liquidation preference to holders of any preferred stock that may be issued from time to time, holders of common stock are entitled to receive on a pro rata basis all remaining assets available for distribution to the holders of common stock in the event of the liquidation, dissolution, or winding up of AgeX's operations.

Holders of AgeX common stock do not have preemptive, subscription, redemption or conversion rights. There will be no redemption or sinking fund provisions applicable to the common stock. The rights, powers, preferences and privileges of holders of our common stock will be subject to those of the holders of any shares of our preferred stock we may authorize and issue in the future.

Exhibit 10.24

DATED: March 30th 2020

AGEX THERAPEUTICS INC.
(as Borrower)

- and -

JUVENESCENCE LIMITED
(as Lender)

- and –

RECYTE THERAPEUTICS INC.
(as Guarantor)

- and –

REVERSE BIOENGINEERING, INC.
(as Guarantor)

SECURED CONVERTIBLE FACILITY AGREEMENT

THIS CONVERTIBLE FACILITY AGREEMENT is made on March 30, 2020

AMONG

(1) **AGEX THERAPEUTICS INC.,** a company incorporated in Delaware with its primary address at 965 Atlantic Ave., #101, Alameda, CA 94501 (the "**Borrower**");

(2) **RECYTE THERAPEUTICS, INC**., a California corporation with its primary address at 965 Atlantic Ave., #101, Alameda, CA 94501 ("**ReCyte**");

(3) **REVERSE BIOENGINEERING, INC**, a Delaware corporation with its primary address at 965 Atlantic Ave., #101, Alameda, CA 94501 ("**Reverse**"); Reverse together with Recyte, each a "Guarantor" and together the "Guarantors";

(4) **JUVENESCENCE LIMITED**, a company incorporated in the British Virgin Islands with company number 1925731 and its registered office at Craigmuir Chambers, Road Town, Tortola, British Virgin Islands (the "**Lender**"),

each a "**party**" and together the "**parties**".

PRELIMINARY

This Agreement shall set forth the terms and conditions upon which the Lender has agreed to provide a secured convertible facility to the Borrower, not exceeding the aggregate principal amount of up to US$8,000,000 (eight million dollars) on the terms and conditions set out in this Agreement.

OPERATIVE PROVISIONS

1 Interpretation

1.1 Definitions in this Agreement:

"**Address for Service**" means the address shown in Clause 16.2 or such other address as the Borrower may from time to time designate by written notice to the Lender;

"**Advance**" means each amount advanced or to be advanced by the Lender under this Agreement;

"**Availability Period**" means the period starting on the date of this Agreement and ending on the date falling eighteen (18) months after the date of this Agreement or, if earlier, on the date a Qualified Offering is consummated by the Borrower as contemplated by Clause 7;

"**Business Day**" means a day other than (i) a Saturday or Sunday or (ii) public holiday in London or New York on which banks are closed or are permitted to be closed open for general business;

"**Collateral**" means all property of the Obligors described as "Collateral" in the Security Agreement, together with all other property that now or hereafter secures (or is intended to secure) obligations of the Obligors under this Agreement and the other Facility Documents;

"**Commitment**" means US$8,000,000;

"Conversion Date" means, in the event that the Borrower elects the conversion option described in Clause 7, the date of consummation of a Qualified Offering;

"**Conversion Notice**" has the meaning set out in Clause 8.2 below;

"**Default**" means an Event of Default that remains uncured beyond any cure period provided in Clause 13.1;

"**Drawdown Notice**" means a request for an Advance substantially in the form set out in Schedule part 1 *(Form of Drawdown Notice)* of this Agreement*;*

"**Drawdown Shares**" means 28,500 fully paid Shares issued to the Lender for nil consideration on the date the Lender has advanced to the Borrower the first US$3,000,000 under this Agreement;

"**Event of Default**" means any one of the events mentioned in Clause 13 *(Events of Default)* of this Agreement*;*

"**Facility**" means the facility made available to the Borrower by the Lender under Clause 2 *(The Facility)* of this Agreement*;*

"**Facility Documents**" means, collectively, this Agreement, the Security Agreement, the IP Security Agreements and each other document, instrument or agreement now or hereafter delivered by an Obligor or other person to the Lender in connection with the transactions contemplated by this Agreement as amended from time to time;

"**Indebtedness**" includes any obligation for the payment or repayment of money borrowed (whether borrowed by the Borrower or as to which the Borrower is a surety or guarantor of payment) but excluding trade payables and similar obligations arising in the ordinary course of business;

"Initial Drawdown" means the initial Advance of $500,000 requested by the Borrower and agreed by the Lender pursuant to Clause 3.1;

"**IP Security Agreements**" means, collectively, each (i) Notice of Grant of Security Interest in Copyrights, (ii) Notice of Grant of Security Interest in Trademarks and/ or (iii) Notice of Grant of Security Interest in Patents executed and delivered from time to time by any Obligor in accordance with the terms of the Security Agreement (including, without limitation, the notices described in the foregoing (i), (ii) and (iii) which are required to be executed and delivered by the Obligors as a condition of the Third Drawdown in accordance with the terms of the Security Agreement);

"**Investment Representations Schedule**" means the representations and warranties made by the Lender in Part A and the Obligors in Part B of Schedule 2 *(Investment Representations)* of this Agreement*;*

"**Market Price**" means the last closing price of the Borrower's shares on the NYSE American stock exchange (or other national securities exchange on which the Borrower's shares may be listed) preceding the delivery of the relevant Drawdown Notice or Conversion Notice, as applicable; provided, that if the Borrower's shares are not listed on any such securities exchange, the "Market Price" shall mean (a) the closing sales price of the Borrower's shares on such day as quoted on the OTC Bulletin Board, the OTC Markets Group, Inc. electronic inter-dealer quotation system, including OTCQX, OTCQB and OTC Pink (collectively the "Pink OTC Markets"), or similar quotation system or association; or (b) if there have been no sales of the Borrower's shares on the OTC Bulletin Board, the Pink OTC Markets or similar quotation system or association on such day, the average of the highest bid and lowest asked prices for the Borrower's shares quoted on the OTC Bulletin Board, the Pink OTC Markets or similar quotation system or association at the end of such day; in each case, averaged over twenty (20) consecutive trading days ending on the trading day immediately prior to the day as of which "Market Price" is being determined; provided, further, that if at any time the Borrower's shares are not listed on any domestic securities exchange or quoted on the OTC Bulletin Board, the Pink OTC Markets or similar quotation system or association, the "Market Price" of the Borrower's shares shall be the fair market value per share as determined jointly by the Borrower's Board of Directors and the Lender.;

"**Obligors**" means, collectively, the Borrower and each of the Guarantors. The term "Obligor" shall be a reference to any of the Borrower or any Guarantor, individually;

"**Outstanding Amount**" means the aggregate principal cash amount outstanding from time to time under this Agreement;

"Qualified Offering" means the sale of Shares (or Units as contemplated by Clause 7.3) to third party investors in a bona fide investment transaction in which the aggregate sales price to the Borrower of the Shares (or Units) sold in such offering, before deduction of underwriting discounts and commissions, placement agent fees and offering expenses, is not less than US$10 million;

"**Repayment Date**" means the day falling on the third anniversary of the date of this Agreement, unless repaid earlier, or, if such day is not a Business Day, the next Business Day;

"Restructuring Plan" means the plan outlining reductions in the number of employees and consultants to be implemented fully by 30 April 2020;

"Second Drawdown" means the Advance pursuant to the Drawdown Notice delivered pursuant to Clause 3 that next succeeds the Initial Drawdown, which the Parties currently expect to be in the sum of US$500,000 at or around April 15th 2020;

"**Security Agreement**" means the Security and Pledge Agreement required to be executed and delivered as a condition of the Third Drawdown in accordance with the terms of Clause 10.2 by and among the Obligors and the Lender, together with all schedules and exhibits thereto as amended from time to time;

"**Security Agreements**" refers to the Security Agreement and the IP Security Agreements, collectively;

"**Sharia**" means the principles and standards of the Islamic Sharia (where applicable), issued by the Accounting and Auditing Organization for Islamic Financial Institutions as of the original date of this Agreement;

"**Sharia Supervisor**" means an Islamic finance scholar who is a member of a recognized Islamic commercial bank's Sharia supervisory committee or board;

"**Tax**" includes any form of taxation, levy, duty, charge, contribution or impost of whatever nature (including any applicable fine, penalty, or surcharge);

"**Term**" means the period commencing the date of this Agreement and expiring on the Repayment Date;

"Termination Notice" means a notice from the Lender to the Borrower given pursuant to Clause 13.2 terminating this Agreement and the Facility;

"Third Drawdown" means the Advance pursuant to the Drawdown Notice delivered pursuant to Clause 3 that next succeeds the Second Drawdown, which the parties currently expect to be in the sum of US$1,000,000 at or around the end of April 2020;

"**Shares**" shares of common stock, par value US$0.0001 per share, of the Borrower;

"**Units**" means units consisting of Shares together with warrants or any other security convertible into Shares, sold in a Qualified Offering;

"**VAT**" means value added tax as provided for in the Value Added Tax Act 1996 and any other tax of a similar nature;

"**Warrants**" means the warrants granted by the Borrower to the Lender as consideration for each advance in accordance with Clause 3.6 of this Agreement and the Warrant Agreement;

"**Warrant Agreement**" means the Warrant Agreement executed as of the date of this Agreement and attached to this Agreement in the form of Exhibit A; and

"**Warrant Instrument**" means a Warrant Instrument in the form of Exhibit A to the Warrant Agreement.

1.2 References in this Agreement to:

(a) any document is deemed to include a reference to such document as amended, novated, supplemented, substituted or replaced from time to time;

(b) any person includes its respective successors, assigns and transferees;

(c) a provision of a statute is, unless otherwise indicated, deemed to include a reference to such provision as amended, modified or re-enacted from time to time;

(d) a time of day is the time in London on the specified date;

(e) the singular, where the context so admits, is deemed to include the plural and vice versa; and

(f) a person is deemed to include a reference to a company, partnership, unincorporated body and any other entity and vice versa.

1.3 **Titles** – Clause headings shall not affect the meaning of that or any other provision.

2 The Facility

2.1 Subject to the terms and conditions of this Agreement, the Lender has agreed to make a secured convertible facility available to the Borrower of up to the Commitment. Notwithstanding anything to the contrary contained herein, it is understood and agreed that the Lender may refuse to make any Advance, other than the Initial Drawdown, to the Borrower at its sole discretion and the Lender shall have no liability whatsoever should it elect to not make any Advance, other than the Initial Drawdown, requested by the Borrower hereunder for any reason whatsoever.

2.2 Any amounts drawn down under the Facility will be used by the Borrower for the purpose of the Borrower's research and development work, professional and administrative expenses, and for general working capital only (and shall be drawn-down in accordance with a budget agreed by the Parties from time-to-time). To enable the Parties to monitor the use of funds not later than ten (10) days before the commencement of each calendar month, the Borrower will furnish the Lender with detailed monthly cash expenditure forecasts for such month and also five (5) days after each month end, a variance analysis for the preceding month of actual versus forecast cash expenditure, in each case in a form reasonably satisfactory to the Lender.

2.3 Other than the Initial Drawdown each Advance by the Lender shall be at its sole discretion. Each of the Parties however understands that the Second Drawdown will only be made available by the Lender where:

(a) the Board of Directors of the Borrower has approved (by formal Board resolution) a restructuring plan by April 15th 2020 and that plan is implemented before 30 April 2020; and

(b) the restructuring plan will reduce total monthly base salaries for all employees of the Borrower (and its subsidiaries) to below $150,000, and consulting costs of the Borrower (and its subsidiaries) to below $10,000 per month, and no bonuses will be declared or paid for the 2019 financial year (and for the avoidance of doubt the reduction in base salaries and consulting fees will be contractual such that any employee or consultant transferred to part-time working can only have their contract thereafter changed after gaining written permission from the Lender); and

(c) the Borrower makes no payments between March 31st, 2020 and April 15th, 2020, other than employee payroll and withholding taxes without first receiving written consent from the Lender, not to be unreasonably withheld.

3 Drawings

3.1 **Mechanics** – Provided the conditions set forth in Clause 10 have been met by the Borrower, then on the execution of this Agreement by the Parties;

(a) the Borrower shall submit to the Lender the Drawdown Notice in respect of the Initial Drawdown in an amount no more than US$500,000 (which shall be unsecured until payment of the Third Drawdown);

(b) on receipt of the Drawdown Notice at paragraph (a) above, the Lender shall make the Initial Drawdown Advance to the Borrower;

3.2 Other than in respect of the Initial Drawdown all subsequent drawdown of funds (including the Second Drawdown) shall be subject to:

(a) the Lender's written consent which shall only be provided after consultation between the Lender and the Borrower but determined in the Lender's sole discretion;

(b) the Lender receiving a duly completed Drawdown Notice from the Borrower not less than five (5) Business Days prior to the proposed drawdown date; and

3.3 Other than in respect of the Initial Drawdown and the Second Drawdown, all subsequent drawdown of funds (including the Third Drawdown) shall be subject to the Lender and Obligors having executed the Security Agreements and such agreements, together with any Collateral-related filings referred to in Clause 10.2, remaining in full force and effect.

3.4 Subject to of the Lender's right to refuse to make any Advance (at its sole discretion) as set out at Clause 2.1, the Lender shall make each additional Advance to the Borrower if:

(a) the Lender has received a duly completed Drawdown Notice from the Borrower;

(b) the proposed drawdown date falls within the Availability Period;

(c) no Termination Notice is served by the Lender within three (3) Business Days prior to the Drawdown Notice;

(d) no Default has occurred and is continuing on the date the Drawdown Notice is received by the Lender or on the proposed drawdown date; and

(e) the amount to be drawn down under the Drawdown Notice does not, unless otherwise agreed in writing by the Lender, exceed US$1,000,000 (and the aggregate amount drawn-down does not exceed the Commitment).

3.5 **Disbursement** – Subject to the terms herein, the Lender shall make each Advance available to the Borrower by payment to the account specified in writing prior to the Initial Drawdown or in the relevant Drawdown Notice.

3.6 **Warrants** – As a condition of each Advance, on receipt of any funds advanced to the Lender under the terms of this Agreement, the Borrower shall grant to the Lender a number of Warrants equal to 50% of the gross value of the relevant Advance made (less any set-off for expenses deducted by the Lender). The exercise price of Warrants granted at the time of each Advance shall be equal to the Market Price. The number of Warrants granted shall be determined in accordance with the formula set out below:

X = (A/B) x 50%

Where:

X = the number of Warrants to be granted;

A = the amount of the Advance; and

B = the Market Price.

3.7 Within 10 days of each Advance the Borrower shall issue the Lender a duly executed certificate in respect of Warrants in accordance with the terms of the Warrant Instrument. The delivery of Warrants with respect to the Initial Drawdown shall be subject to, and shall be made promptly following, receipt of any required approvals of the NYSE American Stock Exchange. The Company shall use its best efforts to obtain any such approvals as promptly as possible after execution of this Agreement.

4 Draw-Down Shares and Interest

4.1 **Interest Rate** – No interest shall be charged on any sums outstanding under the Facility whatsoever as the Obligors hereby recognize and agree that the principle of the payment of interest is not permitted by Sharia and accordingly to the extent that any legal system would (but for the provisions of this Clause) impose (whether by contract or by statute) any obligation to pay interest, the Obligors hereby irrevocably and unconditionally expressly waive and reject any entitlement to recover interest from each other.

4.2 The Obligors recognize that the receipt and payment of interest is prohibited under Sharia and accordingly agree that if any claims for amounts due under this Agreement are made in a court of law and that court imposes an obligation to pay interest on the amounts being claimed, the Obligors hereby irrevocably and unconditionally expressly waive and reject any entitlement to recover such interest and to the extent any amounts of interest are received by the Lender, it will pay such amounts received to a charity designated by an agreed and recognized Sharia Supervisor.

4.3 On the date the Lender has advanced to the Borrower the first US$3,000,000 under this Agreement the Borrower undertakes and covenants that it shall immediately issue to the Lender the Drawdown Shares as an arrangement fee for the Facility. The Drawdown Shares shall be issued as fully paid Shares ranking *pari passu* with the existing issued Shares of the Borrower.

5 Warranties

5.1 The Lender makes the representations as set out in Part A of Schedule 2 and the Obligors make the representations and warranties as set out in Part B of Schedule 2. The Parties agree and acknowledge that each Party has entered into this Agreement in reliance on the representations and warranties made by them respectively in Schedule 2. The warranties and representations shall be made by the Parties on the execution of this Agreement and shall be repeated by the Obligors on drawdown.

6 Repayment

6.1 The Borrower shall repay the Facility to the Lender on the earlier of:

(a) at borrower's election, any date on or before the Repayment Date; or

(b) in accordance with Clause 18.4 or in accordance with Clause 13.2 following an Event of Default.

7 Borrower Conversion

7.1 At the Borrower's election, in lieu of repayment, the Outstanding Amount may be converted, in whole but not in part except as provided in Clause 7.6, into a number of fully paid and non-assessable Shares, subject to and determined as provided in Clause 7.3 below, as of the date of, and in all cases subject to the consummation of, a Qualified Offering provided, that no Event of Default shall at the time exist and be continuing.

7.2 In order to elect to convert the Outstanding Amount into Shares in connection with a Qualified Offering in accordance with this Clause 7, the Borrower shall give Lender notice of such election not less than five (5) Business Days prior to the anticipated Conversion Date, specifying the anticipated Conversion Date, the anticipated aggregate proceeds to the Borrower and the other anticipated terms of the Qualified Offering.

7.3 Subject to Clause 7.6, the number of Shares or Units issuable upon conversion of the Outstanding Amount shall be the quotient of (x) the Outstanding Amount, divided by (y) the lowest price per Share or Unit paid by investors for Shares or Units in the Qualified Offering before deducting underwriting commissions and discounts, placement agent commissions and fees, and other expenses of the Qualified Offering. In lieu of any fractional Share or Unit to which the Lender would otherwise be entitled, the Borrower shall pay cash equal to the product of such fraction multiplied by the price of such Share or Unit in the Qualified Offering.

7.4 Subject to Clause 7.6, upon the consummation of a Qualified Offering, in the event that the Borrower does not elect to convert the Outstanding Amount into Shares in accordance with Clause 7.1: (a) the Availability Period shall terminate and the Lender will not be required to make any further Advances; and (b) at any time prior to the Repayment Date the Lender shall have the right to elect to receive, in its sole discretion, in lieu of any cash repayment of the Outstanding Amount, a number of Shares (or Units, if Units are sold in the Qualified Offering) equal to the Outstanding Amount being so repaid, divided by the lowest price per Share or Unit paid by investors for Shares or Units in the Qualified Offering before deducting underwriting commissions and discounts, placement agent commissions and fees, and other expenses of the Qualified Offering. In lieu of any fractional Share or Unit to which the Lender would otherwise be entitled, the Borrower shall pay cash equal to the product of such fraction multiplied by the price of such Share or Unit in the Qualified Offering. The Borrower shall give the Lender written notice five (5) Business Days prior to making any repayment of the Outstanding Amount under this Agreement in order to permit the Lender to make such an election. If the Lender does not elect to convert the Outstanding Amount to shares in accordance with this Clause 7.4 the Outstanding Amount shall be repayable in full on the Repayment Date (or earlier in accordance with the terms of this Agreement).

7.5 If under the rules of the NYSE American or any other stock exchange on which the Shares are listed (an **"Applicable Exchange**"), approval by the stockholders of the Borrower would be required in connection with the issuance of Shares or Units upon any conversion under this Clause 7, then unless and until such stockholder approval has been obtained, the maximum amount of the Outstanding Amount that may be converted into Shares or Units shall not exceed an amount that would result in the number of Shares (including Shares issued separately or as a part of a Unit) so issued (together with Shares issued upon the consummation of a Qualified Offering in the case of a conversion under Clause 7.1 or that is otherwise deemed by the Applicable Exchange to be in connection with the consummation of the Qualified Offering) exceeding 19.9% of the number of Shares outstanding immediately before such conversion (and before consummation of the Qualified Offering in the case of a conversion under Clause 7.1 or that is otherwise deemed by the Applicable Exchange to be in connection with the consummation of a Qualified Offering). To the extent any funds cannot be so converted as a result of the 19.9% cap such funds shall remain outstanding as loan funds in accordance with the terms of this Agreement.

8 Lender Conversion

8.1 At any time while funds under this Agreement remain outstanding, at the Lender's election, in lieu of repayment, the Outstanding Amount (or any part thereof) may be converted into a number of fully paid and non-assessable Shares of the Borrower. The conversion price shall be equal to the Market Price on the date prior to the date the Lender delivers a Conversion Notice in accordance with Clause 8.2 below.

8.2 In order to elect to convert some or all of the Outstanding Amount into Shares the Lender shall give to the Borrower a notice of such election (a "**Conversion Notice**") specifying a date which is not less than five (5) Business Days following on which the amount of the Outstanding Commitment to be converted (as notified in the Conversion Notice) shall be converted to new Shares. The number of Shares issued by the Borrower shall be rounded down to the nearest whole number of shares (i.e. no fractional shares shall be issued by the Borrower).

8.3 If under the rules of the NYSE American or any other stock exchange on which the Shares are listed (an **"Applicable Exchange**"), approval by the stockholders of the Borrower would be required in connection with the issuance of Shares upon any conversion under this Clause 8, then unless and until such stockholder approval has been obtained, the maximum amount of the Outstanding Amount that may be converted into Shares shall not exceed an amount that would result in the number of Shares so issued exceeding 19.9% of the number of Shares outstanding immediately before such conversion. To the extent any funds cannot be so converted as a result of the 19.9% cap such funds shall remain outstanding as loan funds in accordance with the terms of this Agreement.

9 Tax

9.1 **Withholdings** – If at any time the Obligors are required by law to make any deduction or withholding from any payment due from the Obligors to the Lender, the Obligors shall simultaneously pay to the Lender whatever additional amount is necessary to ensure that the Lender receives a net sum equal to the payment it would have received had no deduction or withholding been made. If the Lender is entitled to an exemption from or reduction of withholding tax with respect to payments hereunder, the Lender shall deliver to the Obligors such properly completed and executed documentation prescribed by law as will permit such payments to be made without withholding or at a reduced rate of withholding.

9.2 The Obligors shall also promptly deliver to the Lender any receipts, certificates or other proof evidencing the amounts (if any) paid or payable in respect of any deduction or withholding as aforesaid.

10 Documentary Conditions Precedent to Initial Drawdown and Third Drawdown

10.1 This Agreement shall not become effective until the date on which each of the following conditions are satisfied (or waived by the Lender):

(a) Warrants. The Borrower has passed all such resolutions (of shareholders and/or directors) to approve and adopt the Warrant Agreement and the issuance of Warrant Instruments hereunder and thereunder;

(b) Counterparts of this Agreement. The Lender shall have received counterparts of this Agreement, duly executed by each of the Obligors, as well as the Lender.

(c) The Lender shall have received (a) the Warrant Agreement in the form attached as Exhibit A to this Agreement, and (b) Amendment No. 1 to the Registration Rights Agreement dated as of August 13, 2019 between the Borrower and the Lender, in the form previously agreed by the parties, in each case duly executed by the Borrower and the other parties thereto.

(d) Other Documents. The Lender shall have received such other documents as the Lender shall have reasonably requested from the Obligors.

10.2 As a condition of the Third Drawdown, the Borrower shall deliver to the Lender the fully executed Security Agreements. In particular the Lender shall have received: (a) the Security Agreement and the IP Security Agreements, each duly executed by the applicable Obligors, (b) evidence satisfactory to the Lender that all filings or recordations necessary to perfect the Lender's liens in the Collateral shall have been made or provisions for the filing thereof have been made immediately post-closing, (c) physical delivery of all original certificates evidencing Pledged Equity (as defined in the Security Agreement) and any original instrument required to be delivered pursuant to the Security Agreement, together with, in each case, an original transfer power duly executed in blank by the applicable Obligor with respect thereto.

11 Guarantee and Indemnity

11.1 Subject to, and effective upon, the Advance under the Third Drawdown, each Guarantor irrevocably and unconditionally jointly and severally:

(a) guarantees to the Lender the due and punctual payment and performance by the Borrower of all the Borrower's obligations and liabilities under or in connection with this Agreement and the Facility Documents (as any such obligations and liabilities may from time to time be varied, novated, extended, increased or replaced);

(b) undertakes with the Lender that whenever the Borrower does not pay any amount when due under or in connection with this Agreement and/or any Facility Document, that the Guarantors shall immediately on demand pay that amount to the Lender as if it were the principal obligor;

(c) agrees with the Lender that if any obligation guaranteed by it is or becomes unenforceable, invalid or illegal, they will, as an independent and primary obligation, indemnify the Lender immediately on demand against any cost, loss or liability it incurs as a result of the Borrower not paying any amount which would, but for such unenforceability, invalidity or illegality, have been payable by it under this Agreement or a Facility Document on the date when it would have been due. The amount payable by the Guarantors under this indemnity will not exceed the amount it would have had to pay under this Clause 11 if the amount claimed had been recoverable on the basis of a guarantee; and

(d) undertakes to the Lender on the date of this Agreement and repeats on the date of each Drawdown Notice and actual drawdown:

i. that it is validly incorporated and is in good standing in the country and state of its incorporation;

ii. it has complied with all material legal and regulatory requirements applicable to it; and

iii. that it is not insolvent, unable to pay its debts within the meaning of the insolvency legislation applicable to the Guarantor concerned, that it has not stopped paying debts as they fall due, that it is not in negotiations with one or more of its creditors about anticipated financial difficulties, it is not in liquidation, administration, or bankrupt and that no resolution or decision has been made to place the Guarantor into liquidation, administration, conservatorship, bankruptcy, assignment for the benefit of creditors, moratorium, rearrangement, receivership, insolvency, reorganization (by way of voluntary arrangement, scheme of arrangement or otherwise), or similar laws in the United States or other applicable jurisdictions to it from time to time.

11.2 This guarantee is a continuing guarantee and will extend to the ultimate balance of sums payable by any Guarantor under this Agreement or any Facility Document, regardless of any intermediate payment or discharge in whole or in part.

11.3 As a separate and independent stipulation and without prejudice to any other provision in this Agreement, all sums which may not be recoverable from the Guarantors whether by reason of any legal limitation, disability or incapacity on or of any Guarantor or any other fact or circumstance (and whether known to the Lender or not) shall nevertheless be recoverable from either Guarantor as sole or principal debtor and shall be paid by the Guarantors on demand in writing by the Lender.

11.4 If any discharge, release or arrangement (whether in respect of the obligations of any Obligor or any security for those obligations or otherwise) is made by the Lender in whole or in part on the basis of any payment, security or other disposition which is avoided or must be restored in insolvency, liquidation, administration or otherwise, without limitation, then the liability of each Guarantor under this Clause 11 will continue or be reinstated as if the discharge, release or arrangement had not occurred.

11.5 Each Guarantor waives any right it may have of first requiring the Lender to proceed against or enforce any other rights or security or claim payment from any person before claiming from the Guarantors under this Clause 11. This waiver applies irrespective of any law or any provision of any Facility Document to the contrary.

11.6 The obligations of each Guarantor under this Clause 11 will not be affected by an act, omission, matter or thing which, but for this Clause, would reduce, release or prejudice any of its obligations under this Clause 11 (without limitation and whether or not known to an Obligor) including:

(a) any time, waiver or consent granted to, or composition with, any Obligor or other person;

(b) the release of any Obligor under the terms of any composition or arrangement with any creditor of any member of its group;

(c) the taking, variation, compromise, exchange, renewal or release of, or refusal or neglect to perfect, take up or enforce, any rights against, or security over assets of, any Obligor or other person or any non-presentation or non-observance of any formality or other requirement in respect of any instrument or any failure to realise the full value of any security;

(d) any incapacity or lack of power, authority or legal personality of or dissolution or change in the members or status of an Obligor or any other person;

(e) any amendment, novation, supplement, extension, restatement (however fundamental and whether or not more onerous) or replacement of this Agreement and/or the Facility Documents or any other document or security including without limitation any change in the purpose of, any extension of or any increase in any facility or the addition of any new facility;

(f) any unenforceability, illegality or invalidity of any obligation under this Agreement and any Facility Document; or

(g) any insolvency or similar proceedings.

11.7 Until all amounts which may be or become payable by the Obligors under or in connection with this Agreement and the Facility Documents have been irrevocably paid in full, no Guarantor will exercise any rights which it may have by reason of performance by it of its obligations under this Agreement and/or the Facility Documents or by reason of any amount being payable, or liability arising, under this Clause 11 including:

(a) to be indemnified by an Obligor;

(b) to take the benefit (in whole or in part and whether by way of subrogation or otherwise) of any rights of the Lender under this Agreement and/or the Facility Documents or of any other guarantee or security taken pursuant to, or in connection with, this Agreement and/or the Facility Documents;

(c) to bring legal or other proceedings for an order requiring any Obligor to make any payment, or perform any obligation, in respect of which any Guarantor has given a guarantee, undertaking or indemnity under Clause 11.1;

(d) to exercise any right of set-off against any Obligor; and/or

(e) to claim or prove as a creditor of any Obligor in competition with the Lender.

If a Guarantor receives any benefit, payment or distribution in relation to such rights, it shall hold that benefit, payment or distribution to the extent necessary to enable all amounts which may be or become payable to the Lender by the Obligors under or in connection with this Agreement and/or the Facility Documents to be repaid in full on trust for the Lender and shall promptly pay or transfer the same to the Lender or as the Lender may direct.

11.8 This guarantee is in addition to and is not in any way prejudiced by any other guarantee or security now or subsequently held by the Lender.

11.9 Each Guarantor shall, on demand by the Lender, execute whatever documents the Lender may reasonably require in order to carry out the intent and purposes of its obligations under this Clause 11.

11.10 For the avoidance of doubt, no Guarantor shall have any obligation under this Clause 11 until the making of the Advance under the Third Drawdown.

12 Covenants of the Obligors

12.1 **Covenants** – Within five (5) Business Days of execution of this Agreement, the Borrower covenants to furnish the Lender with detailed monthly cash expenditure forecasts for the month of April 2020.

12.2 Each of the Obligors respectively covenant that they shall not make any payments whatsoever from the date of execution of this Agreement until April 3rd 2020 without the Lender's written consent.

12.3 At all times while any funds under this Agreement are outstanding, the Obligors covenant that they shall not (without the prior written consent of the Lender), borrow any funds, grant or create or attempt to create or permit to subsist any mortgage, guarantee, charge, lien (other than a lien arising in the ordinary course of business by operation of law) or other encumbrance, trust agreement, declaration of trust, or trust arising by operation of law over or in respect of its or their assets (including the Collateral and all other assets covered by the Security Agreement), unless and until all funds advanced by the Lender pursuant to (i) the terms of this Agreement; and (ii) the loan agreement between the Lender and the Borrower dated August 13, 2019, have been repaid in full by the Borrower to the Lender. For the avoidance of doubt, the Obligors shall only be entitled to apply for and draw-down Government backed debt or other financial support (available as a result of the Covid-19 pandemic), including but not limited to funding available under the Coronavirus Aid, Relief, and Economic Security Act (the CARES Act) signed into law March 27, 2020, with the written consent of the Lender (not to be unreasonably withheld)

12.4 The Obligors respectively acknowledge and agree that if any of the covenants in this Clause 12 are breached by any Obligor, it shall constitute an Event of Default under Clause 13.

13 Events of Default

13.1 **Events** – Each of the following will be an Event of Default:

(a) **Payment** – the Obligors fail to pay any amount payable by it in the manner and at the time provided under and in accordance with this Agreement or any other Facility Document and the failure is not remedied within ten (10) Business Days following the date the payment was to be made;

(b) **Obligations** – if the Obligors fail to perform any of their covenants or obligations or fail to satisfy any of the conditions under this Agreement or any other Facility Document and, such failure (if capable of remedy) remains unremedied to the satisfaction of the Lender for ten (10) Business Days after notice requiring its remedy has been given by the Lender to the Borrower;

(c) **Other Indebtedness** – if any Indebtedness of an Obligor in excess of US$100,000 becomes due and payable or capable of being declared due and payable prior to its due date or any Indebtedness of an Obligor in excess of US$25,000 is not paid on its due date;

(d) **Carrying on Business** – if the Obligors stop payment of its debts generally or ceases or threatens to cease to carry on its business or is unable to pay its debts as they fall due or is deemed by a court of competent jurisdiction to be unable to pay its debts as they fall due, or enters into any arrangements with its creditors generally;

(e) **Insolvency** – if any of the Obligors are in liquidation or administration or subject to any other insolvency procedure (including Chapter 11, Title 11 of the United States Bankruptcy Code) in any jurisdiction (other than a proceeding instituted by Lender or an affiliate of Lender), or a receiver, manager, trustee, custodian or analogous officer is appointed in respect of all or any material part of its property or assets and such appointment continues undischarged or unstayed for a period of sixty (60) days;

(f) **Illegality** – if it becomes unlawful for the Obligors to perform all or any of its obligations under this Agreement or any authorisation, approval, consent, license, exemption, filing, registration or other requirement of any governmental, judicial or public body or authority necessary to enable the Obligors to comply with its obligations under this Agreement or to carry on its business is not obtained or, having been obtained, is modified in a manner that precludes the Obligors from conducting their business in any material respect, or is revoked, suspended, withdrawn or withheld or fails to remain in full force and effect;

(g) **Expropriation** – the issuance or levy of any judgment, writ, warrant of attachment or execution or similar process against all or any material part of the property or assets of the Obligors if such process is not released, vacated or fully bonded within sixty (60) calendar days after its issue or levy;

(h) **Court Action** – if any injunction, order, judgment or decision of any court is entered or issued which, in the opinion of the Lender, materially and adversely affects, or is reasonably likely so to affect, the ability of the Obligors to carry on their business or to pay amounts owed to Lender under this Agreement; and

(i) **Transfer of Assets** – if any Obligor, whether in a single transaction or a series of related transactions, sells, leases, licenses, consigns, transfers or otherwise disposes of any material portion of its assets, other than (i) any sale, assignment, transfer or other disposition of assets from one Obligor to another, (ii) sales, transfers and dispositions of inventory in the ordinary course of business, (iii) any termination of a lease of real or personal property that is not necessary in the ordinary course of the Obligors' business, could not reasonably be expected to have a material adverse effect and does not result from an Obligor's default, and (iv) any sale, lease, license, consignment, transfer or other disposition of assets which has been approved in writing by the Lender.

(j) **Failure of Security** – any of the following shall occur: (i) the security and/or liens created by the Security Agreement or any Facility Document shall at any time cease to constitute valid and perfected security and/or liens on any material portion of the Collateral intended to be covered thereby; (ii) except for expiration in accordance with its terms, the Security Agreement or any other Facility Document pursuant to which a lien is granted by any Obligor in favour of the Lender shall for whatever reason be terminated or shall cease to be in full force and effect; (iii) the enforceability of the Security Agreement or any other Facility Document pursuant to which a lien is granted by any Obligor in favour of the Lender shall be contested by any Obligor thereto, (iv) any Obligor shall assert that its obligations under this Agreement or any other Facility Document shall be invalid or unenforceable, or (v) a loss, theft, damage or destruction occurs with respect to a material portion of the Collateral.

(k) **Financial Condition** – if there is any change in the financial condition of the Obligors which, in the opinion of the Lender, materially and adversely affects, or is reasonably likely so to affect, the ability of the Obligors to perform any of its obligations under this Agreement.

(l) **Misrepresentation** – if any representation, warranty or statement made, repeated or deemed made by the Obligors in this Agreement, or pursuant to the Facility Documents is incomplete, untrue, incorrect or misleading in any material respect when made, repeated or deemed made.

(m) **Cessation of business** – if any or all of the Obligors suspend or cease to carry on (or threatens to suspend or cease to carry on) all or a material part of its or their business.

13.2 **Remedies** – While an Event of Default is continuing and provided it has not been remedied in ten (10) Business Days following notice of the Default given by the Lender to the Borrower, the Lender may do all or any of the following:

(a) by notice to the Borrower, declare the Outstanding Amount and all accrued fees and other sums owed by the Obligors under this Agreement to be immediately due and payable and the same will become so due and payable;

(b) by notice to the Borrower, declare the outstanding balance of the Commitment to be immediately reduced to zero and the same will be so reduced; and

(c) exercise any remedies available to the Lender under the Security Agreement, the other Facility Documents, and/or applicable law.

14 Liability

14.1 **General Costs** – The Obligors will from time to time on demand reimburse the Lender for all reasonable costs and expenses (including reasonable legal fees) and any VAT chargeable on them incurred in the preservation and enforcement of this Agreement.

14.2 **Stamp duties** – The Obligors will pay on demand all stamp and other duties and Taxes, if any, to which this Agreement may be subject or give rise and indemnify the Lender on demand against any and all liabilities with respect to or resulting from any delay or omission on the part of the Obligors to pay any such duties or Taxes.

14.3 **Default** – In the event of any lawsuit or other action to enforce any right or remedy of Lender under this Agreement, or to resolve any dispute arising from or in connection with this Agreement, the prevailing party shall be entitled to recover its costs and expenses of such lawsuit or proceeding, including without limitation, reasonable attorneys' fees.

14.4 **Liability** – The Lender shall have no liability whatsoever to any Obligor should it deliver a Termination Notice under Clause 13.2 of this Agreement (in particular it shall have no liability to fund or pay any costs or liabilities incurred by any Obligor prior to the date of the Termination Notice where such costs and liabilities were incurred by such Obligor in reliance on the availability of funds under this Agreement).

15 Payments

15.1 **Currency** – The Obligors shall discharge each obligation in the currency in which it is due under this Agreement. If at any time the Lender receives any payment (including by set-off) referable to any of the liabilities of the Obligors under this Agreement from any source in a currency other than the currency in which it is due, then such payment shall take effect as a payment to the Lender of the amount in the due currency which the Lender is able to purchase (after deduction of any relevant costs) with the amount of the payment so received in accordance with its usual practice.

15.2 **Indemnity** – If a payment is made under a court order and is treated as a payment of an amount which falls short of the relevant liability of the Obligors expressed in the currency in which it is due, the Obligors as a separate and independent obligation shall on demand from time to time indemnify the Lender against such shortfall.

15.3 **Funds** – All payments made by any Obligors to the Lender shall be made in immediately available cleared funds on its due date (and, if such date is not a Business Day, on the immediately preceding Business Day) to the credit of such account as the Lender may designate. Such payments shall be made in full without set-off or counterclaim and free and clear of any deduction or withholding for or on account of any Tax (save for such deductions or withholdings as are required by law) or any other matter.

16 Communications

16.1 **Written** – All communications under this Agreement must be in writing.

16.2 **Addresses** – Any communication may be sent by prepaid post, or email or delivered to the Lender or an Obligor at its address or email address shown below or as may otherwise by notified to the relevant party in writing. Communications to the Obligors may also be sent to a place of business for it last known to the Lender or delivered to one of its officers.

To the **Lender**:	Juvenescence Limited Fourth Floor, Viking House Nelson Street Isle of Man IM1 2AH Attention: Gregory Bailey Email: greg@juvenescence.ltd
To the **Borrower** or the **Guarantors**:	[c/o] AgeX Therapeutics, Inc. 965 Atlantic Avenue, Suite 101 Alameda, California 94501 Attention: Russell Skibsted, Chief Financial Officer Email: rskibsted@agexinc.com

16.3 **Delivery** – A communication by either of the parties, if sent by post, will be deemed made on the day after posting by first class post, postage prepaid (but, if to another country, five (5) days after posting by airmail, postage prepaid). Any communication sent by email will be deemed effective on the date of transmission if sent on a Business Day not later than 5:00 p.m. local time at the location of the recipient, or the next Business Day if sent on a day other than a Business Day or later than 5:00 p.m. local time at the location of the recipient.

17 Assignation and Transfer

17.1 **Transfer by Lender** – The Lender may transfer any of its rights to payment but not its obligations under this Agreement.

17.2 **No transfer by Obligors** – No Obligor may transfer any of its rights or obligations under this Agreement.

18 Miscellaneous

18.1 **Costs and Expenses** – The Obligors shall respectively be responsible for their own costs in relation to the preparation and execution of this Agreement and shall pay the reasonable and proper costs of the Lender in preparing and finalising this Agreement.

18.2 **Delays** – The rights and powers of the Lender under this Agreement will not be affected or impaired by any delay or omission by the Lender in exercising them or by any previous exercise of any such rights or powers.

18.3 **Severability** – Each of the provisions of this Agreement shall be severable and distinct from one another and if at any time anyone or more of these provisions (or any part of them) is or becomes invalid, illegal or unenforceable the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired.

18.4 **Illegality** – If at any time it becomes unlawful for the Lender to allow the Commitment to remain in effect or to make, fund or allow the Outstanding Amount to remain outstanding then the Lender will promptly notify the Borrower and:

(d) the Lender will not be required to make the Outstanding Amount and the Commitment will be reduced to zero; and

(e) if the Lender so requires by notice to the Borrower, the Borrower and/or the Obligors will repay the Outstanding Amount and pay to the Lender all other sums owed by the Obligors under this Agreement, all on such date as the Lender may reasonably specify.

18.5 **Entire Agreement**

This Agreement, together with the other Facility Documents, constitutes the entire agreement between the parties and supersedes and extinguishes all previous agreements, promises, assurances, warranties, representations and understandings between them, whether written or oral, relating to its subject matter.

18.6 **Termination**

Upon (i) the payment in full to the Lender of the Outstanding Amount, (ii) the conversion of the whole of the Outstanding Amount by the issuance to the Lender of the Shares in accordance with Sections 7 or 8, and delivery to the Lender of one or more valid share certificates for such Shares (or in lieu of certificates, evidence of direct registration in the records of the transfer agent in the case of such Shares), or (iii) any combination thereof which shall satisfy the Outstanding Amount, this Agreement shall terminate and the Borrower shall be forever released from its obligations under this Agreement, except to the extent that any obligations of the Borrower under Clauses 9 (Tax), 14 (Liability), 15 (Payments) and 18 (Miscellaneous) shall survive such termination and remain be valid and effective.

19 Counterparts

This Agreement may be executed in any number of counterparts, which shall together constitute one agreement. Any party may enter into this Agreement by signing any such counterpart. This Agreement and any Drawdown Notice or other notice or communication may be executed with signatures transmitted among the parties by pdf attached to an electronic mail, and no party shall deny the validity of a signature or this Agreement signed and transmitted by pdf attached to an electronic mail on the basis that a signed document is represented by a copy or facsimile and not an original.

20 Law and Jurisdiction

20.1 **Law** - This Agreement and any dispute or claim (including non-contractual disputes or claims) arising out of or in connection with it or its subject matter or formation shall be governed by and construed in accordance with the law of England and Wales

20.2 **Jurisdiction** – For the exclusive benefit of the Lender, the parties irrevocably agree that the Courts of England are to have jurisdiction to settle any dispute arising from or in connection with this Agreement or relating to any non-contractual obligations arising from or in connection with this Agreement.

20.3 Nothing contained in this clause shall limit the right of the Lender to commence any proceedings against the Obligors in any other court of competent jurisdiction nor shall the commencement of any proceedings against the Obligors in one or more jurisdictions preclude the commencement of any proceedings in any other jurisdiction, whether concurrently or not.

20.4 Each of the Obligors irrevocably waives any objection which it may now or in the future have to the laying of the venue of any proceedings in any court referred to in this clause, and any claim that those proceedings have been brought in an inconvenient or inappropriate forum and irrevocably agrees that a judgement in any proceedings commenced in any such court shall be conclusive and binding on it and may be enforced in the courts of any other jurisdiction.

IN WITNESS whereof these presents consisting of this and the preceding pages and the Schedules are executed as a deed as follows.

Executed and Delivered as a Deed by

JUVENESCENCE LIMITED, acting by

GREGORY BAILEY, a director in the

presence of:

/s/ Daivd Ellam

Witness Signature

Witness Name: David Ellam

Witness Address: #6, TN15 7BW, UK

/s/ Gregory Bailey

Director

Executed and Delivered as a Deed by

AGEX THERAPEUTICS INC., in accordance

with the laws of Delaware by

RUSSELL SKIBSTED, Chief Financial Officer

in the presence of:

/s/ Russell Skibsted

Witness Signature

Witness Name: Russell Skibsted

Witness Address: 965 Atlantic Ave., Suite 101, Alameda, CA 94501

/s/ Michael D. West

Director

Executed and Delivered as a Deed by

RECYTE THERAPEUTICS INC., in accordance

with the laws of California by

_____ (NAME)

in the presence of:

_____

Witness Signature

Witness Name:

Witness Address:

_____

Director

Executed and Delivered as a Deed by

REVERSE BIOENGINEERING INC., in accordance

with the laws of California by

_____ (NAME)

in the presence of:

_____

Witness Signature

Witness Name: _____

Witness Address: _____

_____

Director

Schedule – Part 1 Form of Drawdown Notice

To: JUVENESCENCE LIMITED From: AGEX THERAPEUTICS INC.

Date: [●]

Dear Sirs

Secured Convertible Facility Agreement dated [●] (the " Agreement")

We refer to the Agreement. Terms defined in the Agreement have the same meaning in this notice.

This is a Drawdown Notice.

We request the following Advance: Amount of Proposed Advance: [•] Proposed drawdown date: [●]

Please credit the Advance to the following account: [●]

As at the date of this notice no Default is continuing or will occur as a result of the draw down of this Advance.

Yours faithfully

Name: _____

Chief Financial Officer [or Chief Executive Officer]

AGEX THERAPEUTICS INC.

Schedule 2

Investment Representations

1. Terms defined in the Agreement have the same meaning in this notice. In accordance with clause 5 of this Agreement, the Lender makes the following warranties and representations, given as of the date of the Agreement in connection with the Facility and its acquisition of the Warrants and Drawdown Shares:

Part A

1.1 The Lender is a duly incorporated company validly existing under the laws of its jurisdiction of incorporation;

1.2 The Lender has the power to enter into, deliver and perform, and has taken all necessary actions to authorise its entry into, delivery and performance of this Agreement and the Facility Documents and the transactions contemplated by them.

1.3 The Lender has made such investigation of the Borrower as the Lender deemed appropriate for determining to acquire (and thereby make an investment in) the Warrants and Drawdown Shares, and in making such investigation, the Lender has had access to such financial and other Information concerning the Borrower as the Lender requested.

1.4 The Lender understands that the Warrants and shares of common stock issuable upon the exercise of the Warrants ("**Warrant Shares**") and the Drawdown Shares are being offered and sold without registration under the Securities Act of 1933, as amended (the "**Securities Act**"), or registration or qualification under the California Corporate Securities Law of 1968, as amended, or under the securities laws of any other state, country, or other jurisdiction in reliance upon the exemptions from such registration and qualification requirements for nonpublic offerings.

1.5 The Lender understands that (i) the Warrants, and any Warrant Shares issued upon exercise of Warrants, and the Drawdown Shares may not to be sold, offered for sale or transferred by the Lender unless subsequently registered under the Securities Act and applicable state securities laws, or unless sold or transferred pursuant to an exemption from such registration, and (ii) Warrants, Warrant Shares, and Drawdown Shares will carry a legend to such effect.

1.6 The Lender is acquiring the Warrants, Warrant Shares issued upon exercise of Warrants, and the Drawdown Shares solely for the Lender's own account, for long-term investment purposes, and not with a view to, or for sale in connection with, any public distribution of the Warrants, Warrant Shares, or Drawdown Shares.

1.7 The Lender is an "accredited investor" as defined in Rule 501 under the Securities Act and is not a "U.S. Person" under Regulation S under the Securities Act.

1.8 The Lender agrees to keep the Draft Annual Financial Statements confidential until the Borrower files its Annual Report on Form 10-K for the year ended December 31, 2019, and to keep the Interim Financial Statements confidential until the Borrower files the Quarterly Report on Form 10-Q for the three months ending March 31, 2020.

2. In accordance with clause 5 of this Agreement, the Obligors respectively make the following warranties and representations given as of the date of the Agreement in connection with the Facility and the Borrower's issuance of the Warrants and Drawdown Shares:

Part B

2.1 The Obligors are all duly incorporated companies validly existing and in good standing under the laws of their jurisdiction of incorporation and each respectively has the power to own their assets and carry on their business as it is being conducted.

2.2 The Obligors have the power to enter into, deliver and perform, and have taken all necessary actions to authorise their entry into, delivery and performance of this Agreement and the Facility Documents.

2.3 No limit on the powers of the Obligors will be exceeded as a result of the borrowing or granting of security contemplated by this Agreement and the Facility Documents.

2.4 No litigation, arbitration or administrative proceedings are taking place, pending or, threatened against it, any of its directors or any of its assets, which might reasonably be expected to have a material adverse effect on their respective business, assets or condition, or its ability to perform its obligations under this Agreement and the Facility Documents.

2.5 Each Obligor warrants that it has no existing third party encumbrances including but not limited to mortgages, guarantees, charges, liens or other encumbrances, trust agreement, declaration of trust, or trust arising by operation of law over any of its assets which are the subject of this Agreement and the Facility Documents.

2.6 Each Obligor warrants that all of its existing and pending Intellectual Property (as defined and subject to the Security Agreements) is registered, is in good standing, does not infringe any third party Intellectual Property and that each Obligor respectively is in possession of all legal and regulatory consents, licenses and permissions it requires to enable it to satisfy its obligations under this Agreement and the Facility Documents.

2.7 The Borrower has delivered to the Lender a draft copy of its Annual Report on Form 10-K to be filed pursuant to the Securities Exchange Act of 1934, as amended (the "**Exchange Act**") containing the following consolidated draft financial statements of the Borrower and its subsidiaries (the "**Draft Annual Financial Statements"):** (a) draft balance sheets as at December 31, 2019 and 2018; and (b) draft statements of operations, comprehensive loss, cash flow, and stockholders' equity as of December 31, 2019 and 2018. The Draft Annual Financial Statements have been prepared in accordance with generally accepted accounting principles consistently applied and are subject to final adjustments and revisions, which the Borrower does not expect to be material, before being filed with the Borrower's Annual Report on Form 10-K under the Exchange Act for the year ended December 31, 2019.

2.8 The Borrower has delivered to the Lender a draft copy of the following condensed interim consolidated financial statements of the Borrower and its subsidiaries (the "**Interim Financial Statements"):** (a) a balance sheet as at January 31, 2020: and (b) statements of operations, comprehensive loss, cash flow, and stockholders' equity as of January 2020 and 2019. The Interim Financial Statements have been prepared in accordance with generally accepted accounting principles consistently applied and are subject to final adjustments and revisions, which the Borrower does not expect to be material.

EXHIBIT A

THIS WARRANT HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR UNDER APPLICABLE STATE SECURITIES LAWS. THIS WARRANT MAY NOT BE EXERCISED, SOLD, PLEDGED, HYPOTHECATED, TRANSFERRED OR ASSIGNED EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS, OR PURSUANT TO AN AVAILABLE EXEMPTION FROM REGISTRATION. HEDGING TRANSACTIONS INVOLVING THIS WARRANT OR ANY COMMON STOCK OR OTHER SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE CONDUCTED UNLESS IN COMPLIANCE WITH THE SECURITIES ACT.

VOID AFTER 5:00 P.M. NEW YORK TIME ON THE EXPIRATION DATE

Certificate No. Warrant to Purchase

Issue Date: [ ] [Insert number of Shares]

Shares of Common Stock

AGEX THERAPEUTICS, INC.

COMMON STOCK PURCHASE WARRANTS

This certifies that, for value received, or its registered assigns (the "Holder"), is entitled to purchase from AgeX Therapeutics, Inc., a Delaware corporation (the "Company"), at a purchase price per share of [ ] Dollars and [ ] cents ($[ ]) (the "Warrant Price"), [_____ (_____)] shares of its Common Stock, par value $0.0001 per share (the "Common Stock"). The number of shares purchasable upon exercise of the Common Stock Purchase Warrants (the "Warrants") and the Warrant Price are subject to adjustment from time to time as set forth in the Warrant Agreement referred to below. Outstanding Warrants not exercised prior to 5:00 p.m., New York time, on the third anniversary of the original issue date hereof (the "Expiration Date") shall thereafter be void.

Subject to restriction specified in the Warrant Agreement, Warrants may be exercised in whole or in part on or after the date hereof by presentation of this Warrant Certificate with the Exercise Notice on the reverse side hereof duly executed, and simultaneous payment of the Warrant Price (or as otherwise set forth in Section 6.4 of the Warrant Agreement) at the principal office of the Company (or if a warrant agent is appointed, at the principal office of the warrant agent). Payment of the Warrant Price shall be made by bank wire transfer to the account of the Company or by bank cashier's check as provided in Section 3.1 of the Warrant Agreement. As provided in the Warrant Agreement, the Warrant Price and the number or kind of shares which may be purchased upon the exercise of the Warrant evidenced by this Warrant Certificate are, upon the happening of certain events, subject to modification and adjustment.

This Warrant Certificate is issued under and in accordance with a Warrant Agreement dated as of March [●], 2020 (the "Warrant Agreement"), and is subject to the terms and provisions contained in the Warrant Agreement, to all of which the Holder of this Warrant Certificate by acceptance of this Warrant Certificate consents. A copy of the Warrant Agreement may be obtained by the Holder hereof upon written request to the Company.

Upon any partial exercise of the Warrant evidenced by this Warrant Certificate, there shall be issued to the Holder hereof a new Warrant Certificate in respect of the shares of Common Stock as to which the Warrant evidenced by this Warrant Certificate shall not have been exercised to the extent provided in the Warrant Agreement. This Warrant Certificate may be exchanged at the office of the Company (or the warrant agent, if appointed) by surrender of this Warrant Certificate properly endorsed either separately or in combination with one or more other Warrant Certificates for one or more new Warrant Certificates evidencing the right of the Holder thereof to purchase the aggregate number of shares as were purchasable on exercise of the Warrants evidenced by the Warrant Certificate or Certificates exchanged. No fractional shares will be issued upon the exercise of any Warrant, but the Company will pay the cash value thereof determined as provided in the Warrant Agreement. This Warrant Certificate is transferable at the office of the Company (or the warrant agent, if appointed) in the manner and subject to the limitations set forth in the Warrant Agreement.

The Holder hereof may be treated by the Company, the warrant agent (if appointed), and all other persons dealing with this Warrant Certificate as the absolute owner hereof for any purpose and as the person entitled to exercise the rights represented hereby, or to the transfer hereof on the books of the Company, any notice to the contrary notwithstanding, and until such transfer on such books, the Company (and the warrant agent, if appointed) may treat the Holder hereof as the owner for all purposes.

Neither the Warrant nor this Warrant Certificate entitles any Holder to any of the rights of a stockholder of the Company.

[This Warrant Certificate shall not be valid or obligatory for any purpose until it shall have been countersigned by the warrant agent.]*

DATED:

AGEX THERAPEUTICS, INC.

(Seal)

By: _____

Title: _____

Attest: _____

[COUNTERSIGNED:
WARRANT AGENT

By: _____]*

Authorized Signature

_____

* To be part of the Warrant only after the appointment of a warrant agent pursuant to the Warrant Agreement.

FORM OF EXERCISE NOTICE

(To be executed upon exercise of Warrant)

To AgeX Therapeutics, Inc.:

The undersigned hereby irrevocably elects to exercise the right of purchase represented by the within Warrant Certificate for, and to purchase thereunder, _____ shares of Common Stock, as provided for therein, and tenders herewith payment of the Warrant Price in full in the form of a bank wire transfer to the account of the Company or by bank cashier's check in the amount of $_____.

The undersigned hereby represents that (check any that apply):

☐ The undersigned is an "accredited investor" as defined in Rule 501 under the Securities Act.

☐ The undersigned is not a "U.S. person" as defined in Rule 902 under the Securities Act.

Please issue a certificate or certificates for such shares of Common Stock in the name of, and pay any cash for any fractional share to:

_____
(Please Print Name)

_____
(Please Print Address)

_____
(Social Security Number or
Other Taxpayer Identification Number)

_____
(Signature)

NOTE: The above signature should correspond exactly with the name on the face of this Warrant Certificate or with the name of the assignee appearing in the assignment form below.

And, if said number of shares shall not be all the shares purchasable under the within Warrant Certificate, a new Warrant Certificate is to be issued in the name of said undersigned for the balance remaining of the share purchasable thereunder, to the extent provided in the Warrant Agreement, less any fraction of a share paid in cash.

ASSIGNMENT

(To be executed only upon assignment of Warrant Certificate)

For value received, _____ hereby sells, assigns and transfers unto _____ the within Warrant Certificate, together with all right, title and interest therein, and does hereby irrevocably constitute and appoint _____ attorney, to transfer said Warrant Certificate on the books of the within-named Company, with full power of substitution in the premises.

Dated:_____

_____
(Signature)

NOTE: The above signature should correspond exactly with the name on the face of this Warrant Certificate.

Exhibit 10.25

Warrant Agreement

Dated as of March 30, 2020

March 30, 2020

WARRANT AGREEMENT, (this "Agreement") dated as of March 30, 2020, by AgeX Therapeutics, Inc., a Delaware corporation (the "Company"), for the benefit of Juvenescence Limited which, along with any permitted successor Holder of a Warrant is referred to herein as a "Lender".

Section 1. Issuance of Warrants.

1.1 Number of Warrants. Pursuant to the Loan Agreement, the Company has agreed to issue to Lender Warrants to purchase a number of shares of Company Common Stock upon each Advance (as defined in the Loan Agreement) determined in accordance with Clause 3.6 of the Loan Agreement (such shares, the "Warrant Shares"), subject to adjustment as provided herein. The certificates representing the Warrants with respect to the Initial Drawdown (as defined in the Loan Agreement) shall be issued to the Lender upon the funding of such Advance. The certificates representing Warrants with respect to each subsequent advance shall be issued to the Lender in accordance with Clause 3.7 of the Loan Agreement.

1.2 Expiration Date. The right to exercise the Warrants shall expire on, and the Warrants may not be exercised after, 5:00 p.m. New York time on the third anniversary of the issuance thereof.

1.3 Form of Warrant. The text of the Warrants and of the Exercise Notice shall be substantially as set forth in Exhibit A attached hereto.

1.4 Signatures; Date of Warrants. The Warrants shall be executed on behalf of the Company by its Chief Executive Officer and attested by its Chief Financial Officer or Secretary or any Assistant Secretary. The signature of any such officers on the Warrants may be manual or facsimile. Warrants bearing the manual or facsimile signatures of individuals who were at any time the proper officers of the Company shall bind the Company, notwithstanding that such individuals or any one of them shall have ceased to hold such offices prior to the delivery of such Warrants or did not hold such offices on the date of this Agreement. In the event that the Company shall appoint a warrant agent to act on its behalf in connection with the division, transfer, exchange or exercise of Warrants, the Warrants issued after the date of such appointment shall be dated as of the date of countersignature thereof by the warrant agent upon division, exchange, substitution or transfer. Until such time as the Company shall appoint a warrant agent, Warrants shall be dated as of the date of execution thereof by the Company either upon initial issuance or upon division, exchange, substitution or transfer.

1.5 Countersignature of Warrants. In the event that the Company shall appoint a warrant agent to act on its behalf in connection with the division, transfer, exchange or exercise of Warrants, the Warrants issued after the date of such appointment shall be countersigned by the warrant agent (or any successor to the warrant agent then acting as warrant agent) and shall not be valid for any purpose unless so countersigned. Warrants may be countersigned, however, by the warrant agent (or by its successor as warrant agent hereunder) and may be delivered by the warrant agent, notwithstanding that the persons whose manual or facsimile signatures appear thereon as proper officers of the Company shall have ceased to be such officers at the time of such countersignature, issuance or delivery. The warrant agent (if so appointed) shall, upon written instructions of the Chief Executive Officer or the Chief Financial Officer of the Company, countersign, issue and deliver the Warrants as provided in this Agreement.

Section 2. Warrant Price. Subject to any adjustments required by Section 6, the price per share at which Warrant Shares shall be purchasable upon exercise of a Warrant (the "Warrant Price") shall be equal to the Market Price determined at the time specified and in accordance with Clause 3.6 of the Loan Agreement.

Section 3. Exercise of Warrants; Restrictions.

3.1 Exercise of Warrants. Subject to the terms of this Agreement, for each Warrant issued hereunder, Holder shall have the right, which may be exercised in whole or in part, to purchase from the Company, at the Warrant Price then in effect, the number of fully paid and nonassessable Warrant Shares determined as provided in this Agreement. The Warrants may not be exercised or transferred after the Expiration Date. A Warrant may be exercised by (i) surrender of the certificate evidencing the Warrant to be exercised, together with the Exercise Notice duly completed and signed, to the Company at its principal office (or if appointed, the principal office of the warrant agent) and (ii) payment of the applicable Warrant Price to the Company (or if appointed, to the warrant agent for the account of the Company), for the number of Warrant Shares in respect of which the Warrant is then being exercised. Payment of the aggregate Warrant Price shall be made by bank wire transfer to the account of the Company or by bank cashier's check.

3.2 Issuance of Warrant Shares. Subject to Section 3.3 and the Holder's payment of any taxes or deposit funds with the Company sufficient to pay any taxes payable by the Holder pursuant to Section 5, following the surrender of any Warrant with the Exercise Notice duly completed and signed, and provided that payment of the Warrant Price has been received, the Company (or if appointed, the warrant agent) shall promptly cause to be issued and delivered to or upon the written order of the Holder and in such name or names as the Holder may designate, a certificate or certificates for the number of full Warrant Shares so purchased upon the exercise of such Warrant, together with cash, as provided in Section 8, in respect of any fractional Warrant Shares otherwise issuable upon such exercise. Such Warrant Share certificate or certificates shall be deemed to have been issued and any person so designated to be named therein shall be deemed to have become a Holder of record of such Warrant Shares as of the date on which the Warrant with the duly completed and signed Exercise Notice and payment of the Warrant Price, as aforesaid, shall have been received by the Company (or if appointed, to the warrant agent for the account of the Company), for such Warrant Shares. Except for cash payable in respect of any fractional share, under no circumstances shall the Company be required to settle any exercises of this Warrant by cash payment or otherwise "net cash settle" this Warrant. In the event that a certificate evidencing any Warrant is exercised in respect of less than all of the Warrant Shares purchasable on such exercise at any time prior to the tenth Business Day prior to the Expiration Date, a new certificate evidencing the unexercised portion of the Warrant will be issued, and the warrant agent (if so appointed) is hereby irrevocably authorized to countersign and to deliver the required new Warrant certificate or certificates. The Company, whenever required by the warrant agent (if appointed), will supply the warrant agent with Warrant certificates duly executed on behalf of the Company for such purpose.

3.3 Restrictions on Exercise of Warrants.

(a) The Warrants may not be exercised unless the issuance of the Warrant Shares thereunder is registered under the Securities Act or an exemption from such registration is available.

(b) Unless the Warrant and Warrant Shares have been registered under the Securities Act and under any applicable state securities laws, each Person who is exercising a Warrant and who does not certify in the applicable Exercise Notice that such Person either is an "accredited investor" as defined in Rule 501 under the Securities Act or is not a "U.S. person" as defined in Rule 902 under the Securities Act, may be required to provide a written opinion of counsel, acceptable to the Company and to the transfer agent of the Warrant Shares, to the effect that exercise of the Warrant and the issuance of the Warrant Shares are exempt from registration under the Securities Act and under any applicable state securities laws.

(c) The Company shall be entitled to obtain, as a condition precedent to its issuance of any certificates representing Warrant Shares or any other securities issuable upon any exercise of a Warrant, a letter or other instrument from the Holder containing such representations or warranties by the Holder as reasonably deemed necessary by the Company to effect compliance by the Company with the requirements of the Securities Act and any other applicable United States federal and/or state securities laws.

(d) Any exercise, attempt to exercise, or purported exercise of a Warrant in violation of the restrictions set forth in this Section 3.3 shall be deemed null and void and of no binding effect.

(e) The Company will refuse to issue, and will issue instructions to the transfer agent and registrar of its Warrant Shares to refuse to issue, any Warrant Shares upon any exercise not made pursuant to registration under the Securities Act and applicable state securities laws, or pursuant to an available exemption from registration under the Securities Act and applicable state securities laws.

Section 4. Transferability of Warrants and Warrant Shares; Restrictions on Transfer.

4.1 Registration. Each Warrant shall be numbered and shall be registered on the books of the Company (the "Warrant Register") as issued. The Company and the warrant agent (if appointed) shall be entitled to treat the registered holder of any Warrant appearing in the Warrant Register as the owner in fact of the Warrant for all purposes and shall not be bound to recognize any equitable or other claim or interest in the Warrant on the part of any other person, and shall not be liable for any registration of transfer of any Warrant which is registered or to be registered in the name of a fiduciary or the nominee of a fiduciary upon the instruction of such fiduciary, unless made with the actual knowledge that a fiduciary or nominee is committing a breach of trust in requesting such registration of transfer, or with such knowledge of such facts that its participation therein amounts to bad faith. Each Warrant shall initially be registered in the name of the Person to whom it is originally issued.

4.2 Transfer. Subject to Section 4.3, the Warrants shall be transferable only on the Warrant Register upon delivery of the Warrant certificate duly endorsed by the Holder of the Warrant or by such Holder's duly authorized attorney or representative, or accompanied by proper evidence of succession, assignment or authority to transfer. In all cases of transfer by an attorney, the original power of attorney or a duly certified copy thereof shall be deposited and remain with the Company (or the warrant agent, if appointed). In case of transfer by executors, administrators, guardians or other legal representatives, duly authenticated evidence of their authority shall be produced, and may be required to be deposited and remain with the Company (or the warrant agent, if appointed) in its discretion. Upon any registration of transfer, the Company shall execute and deliver (or if appointed, the warrant agent shall countersign and deliver) a new Warrant or Warrants to the Persons entitled thereto.

4.3 Restrictions on Transfer of Warrants and Warrant Shares.

(a) The Warrants, and any Warrant Shares issued upon the exercise of the Warrants, may not be sold, pledged, hypothecated, transferred or assigned, in whole or in part, unless a registration statement under the Securities Act, and under any applicable state securities laws, is effective therefor, or an exemption from such registration is then available and an opinion of counsel, acceptable to the Company and to the transfer agent or warrant agent, if any, has been rendered stating that such sale, pledge, hypothecation, transfer or assignment will not violate the Securities Act or any other United States federal or state securities laws; provided, that no such opinion of counsel shall be required in the event of a sale to (i) a "qualified institutional buyer" within the meaning of Rule 144A under the Securities Act, (ii) pursuant to the applicable provisions of Rule 144 under the Securities Act, or (iii) to an "affiliate" of the Holder, as such term is defined in Rule 405 under the Securities Act.

(b) As a condition precedent to the registration of transfer and issuance of any certificates representing Warrants or Warrant Shares upon transfer, the Company shall be entitled to obtain a letter or other instrument from the Holder and the proposed transferee containing such representations or warranties by such Holder and proposed transferee as reasonably deemed necessary by the Company to effect compliance by the Company with the requirements of the Securities Act and any other applicable federal and/or state securities laws.

(c) Any sale, pledge, hypothecation, transfer, or assignment of a Warrant or Warrant Shares in violation of the foregoing restrictions shall be deemed null and void and of no binding effect.

(d) The Company will issue instructions to any warrant agent that may be appointed, and to the transfer agent and registrar of its Warrant Shares, to refuse to register the transfer of any Warrant and Warrant Shares not made pursuant to registration under the Securities Act and applicable state securities laws, or pursuant to an available exemption from registration under the Securities Act and applicable state securities laws.

Section 5. Payment of Taxes. The Company will pay all documentary stamp taxes, if any, attributable to the initial issuance of Warrant Shares upon the exercise of Warrants; provided, however, that the Company shall not be required to pay any tax or taxes which may be payable in respect of any transfer involved in the issue or delivery of any Warrant or certificates for Warrant Shares in a name other than that of the Holder of such Warrants or Warrant Shares.

Section 6. Adjustment of Warrant Price and Number of Warrant Shares. The number and kind of securities purchasable upon the exercise of each Warrant and the Warrant Price shall be subject to adjustment from time to time upon the happening of certain events, as provided in this Section 6.

6.1 Adjustments. If the Company shall (i) pay a dividend in shares of Common Stock or make a distribution in shares of Common Stock, (ii) subdivide its outstanding shares of Common Stock, (iii) combine its outstanding shares of Common Stock into a smaller number of shares of Common Stock or (iv) reclassify or change its Common Stock (including any such reclassification or change in connection with a consolidation or merger in which the Company is the surviving corporation), the number of Warrant Shares purchasable upon exercise of each Warrant immediately prior thereto shall be adjusted so that the Holder of each Warrant shall be entitled to receive the kind and number of Warrant Shares or other securities of the Company or other property which the Holder would have owned or have been entitled to receive after the happening of any of the events described above, had such Warrant been exercised immediately prior to the happening of such event or any record date with respect thereto. An adjustment made pursuant to this paragraph 6.1 shall become effective immediately after the effective date of such event retroactive to the record date, if any, for such event.

(a) No adjustment in the number of Warrant Shares purchasable hereunder shall be required unless such adjustment would require an increase or decrease of at least one percent (1%) in the number of Warrant Shares purchasable upon the exercise of each Warrant; provided, however, that any adjustments which by reason of this paragraph (a) are not required to be made shall be carried forward and taken into account in the determination of any subsequent adjustment. All calculations shall be made with respect to the number of Warrant Shares purchasable hereunder, to the nearest tenth of a share and with respect to the Warrant Price payable hereunder, to the nearest whole cent.

(b) Whenever the number of Warrant Shares purchasable upon the exercise of each Warrant is adjusted, as herein provided, the Warrant Price payable upon exercise of each Warrant shall be adjusted by multiplying such Warrant Price immediately prior to such adjustment by a fraction, of which the numerator shall be the number of Warrant Shares purchasable upon the exercise of each Warrant immediately prior to such adjustment, and of which the denominator shall be the number of Warrant Shares purchasable immediately thereafter.

6.2 Notice of Adjustment. Whenever the number of Warrant Shares purchasable upon the exercise of each Warrant or the Warrant Price of such Warrant Shares is adjusted, as herein provided, the Company shall, or in the event that a warrant agent is appointed, the Company shall cause the warrant agent to, promptly and in any event within ten (10) days send to each Holder notice of such adjustment or adjustments. Such notice shall set forth the number of Warrant Shares purchasable upon the exercise of each Warrant and the Warrant Price after such adjustment, setting forth a brief statement of the facts requiring such adjustment and setting forth the computation by which such adjustment was made.

6.3 No Adjustment for Dividends. Except as set forth in Section 6.1, no adjustment in respect of any dividends shall be made during the term of a Warrant or upon the exercise of a Warrant.

6.4 Preservation of Purchase Rights Upon Merger, Consolidation, etc. In case of any consolidation of the Company with or merger of the Company into another corporation or in case of any sale, transfer or lease to another Person of all or substantially all the assets of the Company, or any other transaction constituting, resulting in, or giving effect to a Change of Control, the Company or such successor or purchasing corporation, as the case may be, shall execute an agreement that each Holder shall have the right thereafter, upon such Holder's election, either (i) upon payment of the Warrant Price in effect immediately prior to such action, to purchase upon exercise of each Warrant the kind and amount of shares and other securities and property (including cash) which the Holder would have owned or have been entitled to receive after the happening of such consolidation, merger, sale, transfer, lease or other transaction had such Warrant been exercised immediately prior to such transaction (such shares and other securities and property (including cash) being referred to as the "Sale Consideration") or (ii) to receive, in cancellation of such Warrant (and in lieu of paying the Warrant Price and exercising such Warrant), the Sale Consideration less a portion thereof having a fair market value (as reasonably determined by the Company) equal to the Warrant Price (it being understood that, if the Sale Consideration consists of more than one type of shares, other securities or property, the amount of each type of shares, other securities or property to be received shall be reduced proportionately); provided, however, that except as set forth in Section 6.1, no adjustment in respect of dividends, interest or other income on or from such shares or other securities and property shall be made during the term of a Warrant or upon the exercise of a Warrant. The Company shall mail by first class mail, postage prepaid, to each Holder, notice of the execution of any such agreement. Such agreement shall provide for adjustments, which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Section 6. The provisions of this paragraph shall similarly apply to successive consolidations, mergers, sales, transfers or leases or other transactions constituting, resulting in, or giving effect to a Change of Control. The warrant agent (if appointed) shall be under no duty or responsibility to determine the correctness of any provisions contained in any such agreement relating to the kind or amount of shares of stock or other securities or property receivable upon exercise of Warrants or with respect to the method employed and provided therein for any adjustments and shall be entitled to rely upon the provisions contained in any such agreement.

Section 7. Reservation of Warrant Shares; Purchase and Cancellation of Warrants.

7.1 Reservation of Warrant Shares. There have been reserved, and the Company shall at all times keep reserved, out of its authorized Common Stock, a number of shares of Common Stock sufficient to provide for the exercise of the rights of purchase represented by the outstanding Warrants. The Company will keep a copy of this Agreement on file with the transfer agent for the Warrant Shares. The warrant agent, if appointed, will be irrevocably authorized to requisition from time to time from such transfer agent the stock certificates required to honor outstanding Warrants upon exercise in accordance with the terms of this Agreement. The Company will supply such transfer agent with duly executed stock certificates for such purposes and will provide or otherwise make available any cash which may be payable as provided in Section 8. The Company will furnish such transfer agent a copy of all notices of adjustments and certificates related thereto, transmitted to each Holder pursuant to Section 6.2.

7.2 Purchase of Warrants by the Company. The Company shall have the right, except as limited by law or by other agreements, with the consent of the Holder (such consent to be given or withheld in the Holder's sole discretion), to purchase or otherwise acquire Warrants from the Holder at such times, in such manner and for such consideration as it and the Holder may deem appropriate.

7.3 Cancellation of Warrants. In the event the Company shall purchase or otherwise acquire Warrants, the same shall thereupon be cancelled and retired. The warrant agent (if so appointed) shall cancel any Warrant surrendered for exchange, substitution, transfer or exercise in whole or in part.

Section 8. Fractional Interests. The Company shall not be required to issue fractional Warrants upon the transfer of any Warrant, or fractional Warrant Shares upon the exercise of Warrants. If more than one Warrant shall be presented for exercise at the same time by the same Holder, the number of full Warrant Shares which shall be issuable upon the exercise thereof shall be computed on the basis of the aggregate number of Warrant Shares purchasable on exercise of the Warrants so presented. If any fraction of a Warrant Share would, except for the provisions of this Section 8, be issuable on the exercise of any Warrant (or specified portion thereof), the Company shall pay an amount in cash equal to the Market Price per Warrant Share determined as of one business day prior to the date the Warrant is presented for exercise, multiplied by such fraction.

Section 9. Exchange of Warrant Certificates. Each Warrant certificate may be exchanged, at the option of the Holder thereof, for another Warrant certificate or Warrant certificates in different denominations (but not for any fractional Warrant or any denomination that would, but for Section 8, result in the issuance of a fractional share upon exercise) entitling the Holder or Holders thereof to purchase a like aggregate number of Warrant Shares as the certificate or certificates surrendered then entitle the Holder to purchase. Any Holder desiring to exchange a Warrant certificate or certificates shall make such request in writing delivered to the Company at its principal office (or, if a warrant agent is appointed, the warrant agent at its principal office) and shall surrender, properly endorsed, the certificate or certificates to be so exchanged. Thereupon, the Company (or, if appointed, the warrant agent) shall execute and deliver to the person entitled thereto a new Warrant certificate or certificates, as the case may be, as so requested, in such name or names as such Holder shall designate.

Section 10. Mutilated or Missing Warrants. In case any of the certificates evidencing the Warrants shall be mutilated, lost, stolen or destroyed, the Company may in its discretion issue and deliver (and, if appointed, the warrant agent shall countersign and deliver) in exchange and substitution for and upon cancellation of the mutilated Warrant certificate, or in lieu of and substitution for the Warrant certificate lost, stolen or destroyed, a new Warrant certificate of like tenor, but only upon receipt of evidence reasonably satisfactory to the Company and the warrant agent (if so appointed) of such loss, theft or destruction of such Warrant, and an indemnity or bond, if requested, also reasonably satisfactory to them. An applicant for such a substitute Warrant certificate shall also comply with such other reasonable requirements and pay such reasonable charges as the Company (or the warrant agent, if so appointed) may prescribe.

Section 11. No Rights as Stockholders; Notices to Holders. Nothing contained in this Agreement or in any of the Warrants shall be construed as conferring upon the Holders or their transferees the right to vote or to receive dividends or to consent or to receive notice as stockholders in respect of any meeting of stockholders for the election of directors of the Company or any other matter, or any rights whatsoever as stockholders of the Company. If, however, at any time prior to the Expiration Date, any of the following events shall occur: (a) the Company shall declare any dividend payable in any securities upon its shares of Common Stock or make any distribution (other than a regular cash dividend, as such dividend may be increased from time to time, or a dividend payable in shares of Common Stock for which an adjustment to the number of Warrant Shares is to be made pursuant to Section 6.1) to the holders of its shares of Common Stock; or (b) the Company shall distribute rights, options or warrants to all holders of its outstanding Common Stock, without any charge to such holders, entitling them to subscribe for or purchase shares of Common Stock or the Company shall otherwise offer to the holders of its shares of Common Stock on a pro rata basis any cash, additional shares of Common Stock or other securities of the Company or any right to subscribe for or purchase any thereof; (c) a consolidation, merger, sale, transfer or lease of all or substantially all of the Company's property, assets, and business as an entirety, or (d) a dissolution, liquidation or winding up of the Company, or (e) a transaction between the Company and any other Person that will result in a Change of Control shall be proposed, then in any one or more of said events the Company shall give notice in writing of such event as provided in Section 12, such giving of notice to be completed at least 10 days prior to the date fixed as a record date or the date of closing the transfer books for the determination of the stockholders entitled to such dividend or distribution or for the determination of stockholders entitled to vote on such proposed merger, consolidation, sale of assets, dissolution, liquidation or winding up or the date on which a transaction to which the Company is a party and which will cause or result in a Change of Control will be consummated. Such notice shall specify such record date or the date of closing the transfer books, as the case may be. Failure to publish, mail or receive such notice or any defect therein or in the publication or mailing thereof shall not affect the validity of any action in connection with such dividend, distribution or subscription rights, or such proposed dissolution, liquidation or winding up.

Section 12. Notices; Principal Office. Any notice pursuant to this Agreement by the Company or by any Holder to the warrant agent (if so appointed), or by the warrant agent (if so appointed) or by any Holder to the Company, shall be in writing and shall be delivered in person, or mailed first class, postage prepaid, or sent by air delivery service (a) to the Company, at its office, Attention: Chief Financial Officer, or (b) to the warrant agent, at its offices as designated at the time the warrant agent is appointed. The address of the principal office of the Company is 1010 Atlantic Avenue, Suite 102, Alameda, California 94051. Any notice given pursuant to this Agreement by the Company or the warrant agent to the Holder shall be in writing and shall be mailed first class, postage prepaid, or sent by air delivery service, or delivered personally to such Holder at the Holder's address on the books of the Company or the warrant agent, as the case may be. A notice shall be deemed given on the date deposited in the United States mail, first class postage prepaid, or on date deposited with an air delivery service, or on the date delivered if personally delivered. The Company, the warrant agent (if appointed), and any Holder may from time to time change the address to which notices to it are to be delivered or mailed hereunder by notice given as provided in this Section 12.

Section 13. Successors. Except as expressly provided herein to the contrary, all the covenants and provisions of this Agreement by or for the benefit of the Company, the warrant agent (if appointed) and the Holder shall bind and inure to the benefit of their respective successors and permitted assigns hereunder.

Section 14. Legends. The Warrants shall bear an appropriate legend, conspicuously disclosing the restrictions on exercise under Section 3.3, and the Warrants and Warrant Shares shall bear an appropriate legend, conspicuously disclosing the restrictions on transfer under Section 4.3 until the same are registered for sale under the Securities Act or are transferred in a transaction exempt from registration under the Securities Act entitling the transferee to receive securities that are not deemed to be "restricted securities" as such term is defined in Rule 144 under the Securities Act. The Company agrees that upon the sale of the Warrants and Warrant Shares pursuant to a registration statement or an exemption entitling the transferee to receive securities that are not deemed to be "restricted securities," or at such time as registration under the Securities Act shall no longer be required, upon the presentation of the certificates containing such a legend to the transfer agent or warrant agent, if any, it will remove such legend; provided, that unless the request for removal of the legend is in connection with a sale registered under the Securities Act or a sale meeting the applicable requirements of Rule 144 under the Securities Act, the Holder shall have provided an opinion of counsel, acceptable to the Company and the transfer agent or warrant agent, as applicable, to the effect that such legend may be removed in compliance with the Securities Act.

Section 15. Applicable Law. This Agreement and each Warrant issued hereunder shall be governed by and construed in accordance with the laws of the State of Delaware, without giving effect to principles of conflict of laws.

Section 16. Benefits of this Agreement. This Agreement shall be for the sole and exclusive benefit of the Company, the warrant agent (if appointed), and the Holders. Nothing in this Agreement shall be construed to give to any Person other than the Company, the warrant agent (if appointed), and the Holders any legal or equitable right, remedy or claim under this Agreement.

Section 17. Amendments. No amendment, modification or other change to, or waiver of any provision of, this Warrant Agreement or any Warrant may be made unless such amendment, modification or waiver is set forth in writing and is signed by the Company and the Holder (and, if appointed, the warrant agent).

Section 18. Counterparts. This Agreement may be executed in any number of counterparts (including by separate counterpart signature pages) and each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same instrument.

Section 19. Captions. The captions of the Sections and subsections of this Agreement have been inserted for convenience only and shall have no substantive effect.

Section 20. Certain Definitions. For purposes of this Warrant Agreement and the Warrants, the following terms shall have the following meanings:

20.1 "Business Day" means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed.

20.2 "Change of Control" means (a) a merger or consolidation of the Company with another Person other than (i) a merger in which the Company is the surviving Person and the holders of Common Stock immediately before the merger hold more than 50% of the Common Stock immediately after the merger or consolidation, or (ii) a merger solely for the purpose of changing the state of the Company's incorporation, (b) a tender offer or similar transaction through which a Person (not including the Holder or a "group" within the meaning of Section 13(d)(3) under the Securities Exchange Act of 1934, as amended, of which the Holder is a member) acquires more than 50% of the outstanding Common Stock, or (c) a sale of all or substantially all of the assets of the Company.

20.3 “Common Stock” means the common stock, par value $0.0001 per share, of the Company and any other capital stock of the Company issued in exchange therefor or into which such common stock may be converted through any reclassification or recapitalization of such common stock of the Company; but excluding shares of any other Person into which Company common stock may be converted or exchanged in connection with a merger or consolidation other than a merger or consolidation solely for the purpose of changing the state of the Company’s incorporation.

20.4 “Company” means AgeX Therapeutics, Inc., a Delaware corporation.

20.5 “Exercise Notice” shall mean the form of exercise notice on the reverse of the Warrant.

20.6 “Expiration Date” shall have the meaning set forth in Section 1.2.

20.7 “Holder” means a registered holder of a Warrant as reflected on the Warrant Register.

20.8 “Loan Agreement” means that certain Secured Convertible Facility Agreement, dated as of the date hereof between and among Juvenescence Limited, as Lender thereunder, the Company, as Borrower, and certain subsidiaries of the Company named therein, as Guarantors.

20.9 “Market Price” shall have the meaning given to such term in the Loan Agreement.

20.10 “Person” means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity and a government or any department or agency thereof.

20.11 “Sale Consideration” shall have the meaning ascribed in Section 6.4.

20.12 “Securities Act” means the Securities Act of 1933, as amended.

20.13 “Warrants” mean the Common Stock purchase warrants issuable and governed pursuant to this Agreement.

20.14 “Warrant Register” shall have the meaning ascribed in Section 4.1.

20.15 “Warrant Share” shall have the meaning ascribed in Section 1.1.

[signature page follows]

IN WITNESS WHEREOF, the parties hereto have caused this Warrant Agreement to be duly executed, all as of the day and year first above written.

AGEX THERAPEUTICS, INC.

By: */s/ Michael D. West*
Michael D. West
President and Chief Executive Officer

Attest:

By: */s/ Russell Skibsted*
Russell Skibsted,
Chief Financial Officer

JUVENESCENCE LIMITED

By: */s/ Gregory Bailey*
Gregory Bailey
Authorized Signatory

EXHIBIT A

THIS WARRANT HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR UNDER APPLICABLE STATE SECURITIES LAWS. THIS WARRANT MAY NOT BE EXERCISED, SOLD, PLEDGED, HYPOTHECATED, TRANSFERRED OR ASSIGNED EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS, OR PURSUANT TO AN AVAILABLE EXEMPTION FROM REGISTRATION. HEDGING TRANSACTIONS INVOLVING THIS WARRANT OR ANY COMMON STOCK OR OTHER SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE CONDUCTED UNLESS IN COMPLIANCE WITH THE SECURITIES ACT.

VOID AFTER 5:00 P.M. NEW YORK TIME ON THE EXPIRATION DATE

Certificate No. Warrant to Purchase

Issue Date: [ ] [Insert number of Shares]

Shares of Common Stock

AGEX THERAPEUTICS, INC.

COMMON STOCK PURCHASE WARRANTS

This certifies that, for value received, or its registered assigns (the "Holder"), is entitled to purchase from AgeX Therapeutics, Inc., a Delaware corporation (the "Company"), at a purchase price per share of [ ] Dollars and [ ] cents ($[ ]) (the "Warrant Price"), [_____ (_____)] shares of its Common Stock, par value $0.0001 per share (the "Common Stock"). The number of shares purchasable upon exercise of the Common Stock Purchase Warrants (the "Warrants") and the Warrant Price are subject to adjustment from time to time as set forth in the Warrant Agreement referred to below. Outstanding Warrants not exercised prior to 5:00 p.m., New York time, on the third anniversary of the original issue date hereof (the "Expiration Date") shall thereafter be void.

Subject to restriction specified in the Warrant Agreement, Warrants may be exercised in whole or in part on or after the date hereof by presentation of this Warrant Certificate with the Exercise Notice on the reverse side hereof duly executed, and simultaneous payment of the Warrant Price (or as otherwise set forth in Section 6.4 of the Warrant Agreement) at the principal office of the Company (or if a warrant agent is appointed, at the principal office of the warrant agent). Payment of the Warrant Price shall be made by bank wire transfer to the account of the Company or by bank cashier's check as provided in Section 3.1 of the Warrant Agreement. As provided in the Warrant Agreement, the Warrant Price and the number or kind of shares which may be purchased upon the exercise of the Warrant evidenced by this Warrant Certificate are, upon the happening of certain events, subject to modification and adjustment.

This Warrant Certificate is issued under and in accordance with a Warrant Agreement dated as of March [●], 2020 (the "Warrant Agreement"), and is subject to the terms and provisions contained in the Warrant Agreement, to all of which the Holder of this Warrant Certificate by acceptance of this Warrant Certificate consents. A copy of the Warrant Agreement may be obtained by the Holder hereof upon written request to the Company.

Upon any partial exercise of the Warrant evidenced by this Warrant Certificate, there shall be issued to the Holder hereof a new Warrant Certificate in respect of the shares of Common Stock as to which the Warrant evidenced by this Warrant Certificate shall not have been exercised to the extent provided in the Warrant Agreement. This Warrant Certificate may be exchanged at the office of the Company (or the warrant agent, if appointed) by surrender of this Warrant Certificate properly endorsed either separately or in combination with one or more other Warrant Certificates for one or more new Warrant Certificates evidencing the right of the Holder thereof to purchase the aggregate number of shares as were purchasable on exercise of the Warrants evidenced by the Warrant Certificate or Certificates exchanged. No fractional shares will be issued upon the exercise of any Warrant, but the Company will pay the cash value thereof determined as provided in the Warrant Agreement. This Warrant Certificate is transferable at the office of the Company (or the warrant agent, if appointed) in the manner and subject to the limitations set forth in the Warrant Agreement.

The Holder hereof may be treated by the Company, the warrant agent (if appointed), and all other persons dealing with this Warrant Certificate as the absolute owner hereof for any purpose and as the person entitled to exercise the rights represented hereby, or to the transfer hereof on the books of the Company, any notice to the contrary notwithstanding, and until such transfer on such books, the Company (and the warrant agent, if appointed) may treat the Holder hereof as the owner for all purposes.

Neither the Warrant nor this Warrant Certificate entitles any Holder to any of the rights of a stockholder of the Company.

[This Warrant Certificate shall not be valid or obligatory for any purpose until it shall have been countersigned by the warrant agent.]*

DATED:

AGEX THERAPEUTICS, INC.

(Seal)

By: _____

Title: _____

Attest: _____

[COUNTERSIGNED:
WARRANT AGENT

By: _____]*

Authorized Signature

_____

* To be part of the Warrant only after the appointment of a warrant agent pursuant to the Warrant Agreement.

FORM OF EXERCISE NOTICE

(To be executed upon exercise of Warrant)

To AgeX Therapeutics, Inc.:

The undersigned hereby irrevocably elects to exercise the right of purchase represented by the within Warrant Certificate for, and to purchase thereunder, _____ shares of Common Stock, as provided for therein, and tenders herewith payment of the Warrant Price in full in the form of a bank wire transfer to the account of the Company or by bank cashier's check in the amount of $_____.

The undersigned hereby represents that (check any that apply):

☐ The undersigned is an "accredited investor" as defined in Rule 501 under the Securities Act.

☐ The undersigned is not a "U.S. person" as defined in Rule 902 under the Securities Act.

Please issue a certificate or certificates for such shares of Common Stock in the name of, and pay any cash for any fractional share to:

_____
(Please Print Name)

_____
(Please Print Address)

_____
(Social Security Number or
Other Taxpayer Identification Number)

_____
(Signature)

NOTE: The above signature should correspond exactly with the name on the face of this Warrant Certificate or with the name of the assignee appearing in the assignment form below.

And, if said number of shares shall not be all the shares purchasable under the within Warrant Certificate, a new Warrant Certificate is to be issued in the name of said undersigned for the balance remaining of the share purchasable thereunder, to the extent provided in the Warrant Agreement, less any fraction of a share paid in cash.

ASSIGNMENT

(To be executed only upon assignment of Warrant Certificate)

For value received, _____ hereby sells, assigns and transfers unto _____ the within Warrant Certificate, together with all right, title and interest therein, and does hereby irrevocably constitute and appoint _____ attorney, to transfer said Warrant Certificate on the books of the within-named Company, with full power of substitution in the premises.

Dated:_____

_____
(Signature)

NOTE: The above signature should correspond exactly with the name on the face of this Warrant Certificate.

Exhibit 10.26

March 30, 2020

AMENDMENT NO. 1

TO

REGISTRATION RIGHTS AGREEMENT

This Amendment No. 1, dated as of March 30, 2020 (the "**Amendment**"), is entered into by and between AgeX Therapeutics, Inc., a California corporation (the "**Company**") and Juvenescence Limited, a company incorporated in the British Virgin Islands ("**Holder**"). Capitalized terms used in this Amendment and not otherwise defined herein shall have the meanings ascribed thereto in the "Registration Rights Agreement" (as defined below) as amended hereby.

WHEREAS, the Company and Holder are parties to that certain Registration Rights Agreement dated as of August 13, 2019 (the "**Registration Rights Agreement**");

WHEREAS, the Company and Holder are entering into a new Secured Convertible Facility Agreement dated as of the date hereof providing for a secured loan facility to the Company in the aggregate principal amount of up to US$8,000,000, subject to the terms and conditions outlined therein (the "**2020 Loan Agreement**");

WHEREAS, in connection with entering into the 2020 Loan Agreement, subject to the terms and conditions outlined therein, the Company has agreed (a) to issue certain shares of common stock, par value $0.0001 per share, of the Company to Holder, and (b) to issue certain warrants to Holder pursuant to the terms of a Warrant Agreement dated as of the date of this Amendment by and between the Company and Holder; and

WHEREAS, the Company and Holder have agreed to amend the Registration Rights Agreement as provided herein in order to include the aforementioned shares of common stock, warrants and shares of common stock issuable upon exercise of the warrants as "Registrable Securities" thereunder.

NOW THEREFORE, in consideration of the terms and conditions set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. **Amendment to Registration Rights Agreement**.

1.1. Section 1(e) of the Registration Rights Agreement is hereby deleted and replaced with the following:

(e) "Loan Agreement" means the Loan Facility Agreement between the Company and Holder, dated August 13, 2019.

1.2. Sections 1(g) through 1(i) of the Registration Rights Agreement are hereby deleted and replaced in their entirety with the following:

(g) "Second Loan Agreement" means the Secured Convertible Facility Agreement between the Company, as borrower thereunder, Holder, as lender thereunder, and the subsidiaries of the Company named therein, as guarantors, dated as of the date of this Amendment.

(h) "Shares" means, collectively, (i) 19,000 shares of common stock, par value $0.0001 per share, of the Company issued by the Company upon the Company's first draw down from the credit line under the Loan Agreement, and (ii) 28,500 shares common stock, par value $0.0001 per share, of the Company to be issued by the Company upon the satisfaction of the conditions set forth under the Second Loan Agreement.

(i) "Warrants" means, collectively, (i) up to 150,000 common stock purchase warrants governed by that certain Warrant Agreement between and among the Company and Holder dated August 13, 2019, and (ii) those common stock purchase warrants governed by that certain Warrant Agreement between and among the Company and Holder dated as of the date of this Amendment, to be issued in accordance with Clause 3.6 of the Second Loan Agreement at the time of each Advance (as defined in such agreement), in each case as such number may be adjusted pursuant to the terms thereof.

(j) "Warrant Shares" means shares of common stock, par value $0.0001 per share, of the Company issuable by the Company pursuant to the exercise of Warrants.

2. **Effect**. Except as specifically amended by this Amendment, the Registration Rights Agreement shall remain in full force and effect and is hereby ratified and confirmed.

3. **Governing Law**. This Amendment shall be governed in all respects by the laws of the State of California, as applied to contracts entered into in California between California residents and to be performed entirely within California.

4. **Counterparts**. This Amendment may be executed in any number of counterparts (including by separate counterpart signature pages), each of which shall be an original, but all of which together shall constitute one instrument. Any counterpart of this Agreement may be signed by electronic or facsimile, and such electronic or facsimile signature shall be deemed an original signature.

[signature page follows]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

COMPANY:

AGEX THERAPEUTICS, INC.

By: */s/ Russell Skibsted*
Russell Skibsted,
Chief Financial Officer

By */s/ Judith Segall*
Judith Segall, Secretary

HOLDER:

JUVENESCENCE LIMITED

By: */s/ Gregory Bailey*
Name: Gregory Bailey
Title: Authorized Signatory

Exhibit 21.1

LIST OF SUBSIDIARIES

Subsidiary	Ownership	Country
ReCyte Therapeutics, Inc.	94.8%	USA
LifeMap Sciences, Inc.	81.7%	USA
LifeMap Sciences, Ltd.	(1)	Israel

(1) LifeMap Sciences, Ltd. (an Israeli company) is a wholly-owned subsidiary of LifeMap Sciences, Inc.

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (File No. 333-229432) of AgeX Therapeutics, Inc. of our report dated March 30, 2020, relating to the consolidated financial statements of AgeX Therapeutics, Inc., which appears in this Annual Report on Form 10-K.

/s/ OUM & Co. LLP

San Francisco, California
March 30, 2020

Exhibit 31

CERTIFICATIONS

I, Michael D. West, certify that:

1. I have reviewed this annual report on Form 10-K of AgeX Therapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this periodic report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

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

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

Date: March 30, 2020

/s/ Michael D. West

Michael D. West
Chief Executive Officer

Exhibit 31

CERTIFICATIONS

I, Russell Skibsted, certify that:

1. I have reviewed this annual report on Form 10-K of AgeX Therapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this periodic report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

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

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

Date: March 30, 2020

/s/ Russell Skibsted

Russell Skibsted
Chief Financial Officer

Exhibit 32

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of AgeX Therapeutics, Inc. (the "Company") for the year ended December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Michael D. West, Chief Executive Officer, and Russell Skibsted, Chief Financial Officer, of the Company, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

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

Date: March 30, 2020

/s/ Michael D. West
Michael D. West
Chief Executive Officer

/s/ Russell Skibsted
Russell Skibsted
Chief Financial Officer