Filed Pursuant to Rule 433 under the Securities Act of 1933
Relating to the Preliminary Prospectus dated December 4, 2023
Registration Statement No. 333-275361

FibroBiologics, Inc.

This free writing prospectus relates to the Registration Statement on Form S-1 (File No. 333-275361) (the "Registration Statement") that FibroBiologics, Inc. (the "Company") has filed with the Securities and Exchange Commission (the "SEC") under the Securities Act of 1933, as amended, which may be accessed through the following link: here.

On December 14, 2023, the Company held an investor webinar related to the Company's proposed direct listing. A copy of the transcript from the webinar is attached as Appendix A.

The Company has filed a Registration Statement (including a prospectus) with the SEC relating to its common stock to which this communication relates. Before you invest, you should read the prospectus in that Registration Statement and other documents the Company has filed with the SEC for more complete information about the Company and its Class A common stock. You may get these documents for free by visiting EDGAR on the SEC Website at www.sec.gov. Alternatively, the Company has made the prospectus available at fibrobiologics.com under the "SEC Filings" section.

Appendix A

Company Webinar Transcript

Title: FibroBiologics Investor Day Webinar

Date and Time: December 14, 2023 at 10:00 AM

Liz Philips

From Houston, Texas, home of the renowned Texas Medical Center, MD Anderson and Johnson NASA space center, welcome to the FibroBiologics Investor Day. I am Liz Phillips, head of Communications at FibroBiologics. Today you will hear from our founder and Chief Executive Officer, Pete O'Heeron, as well as our Chief Scientific Officer, Dr. Hamid Khoja, our Chief Financial Officer, Mark Andersen, and an expert in the field of fibroblasts, Dr. Neil Bhowmick. We are excited to provide you with a comprehensive overview of our science, and vision to become the world leader in cell therapy.

As with any presentation, we may make Forward-Looking Statements.

Following the end of today's live webcast, a replay will be available in the Investor Relations section of our company's website at www.fibrobiologics.com.

With that, it is my pleasure to introduce you to our founder and CEO, Pete O'Heeron. Pete?

Pete O'Heeron

Thank you, Liz – and thank you to everyone for attending FibroBiologics' Investor Day.

At FibroBiologics, we strive to serve patients by harnessing the regenerative and immune modulation potential of fibroblasts using world-class science and a passionate research culture to treat and cure individuals suffering from chronic disease.

Our values serve as the foundational pillars upon which we build and execute our vision. Our vision is to become the world leader in regenerative medicine through a rigorous scientific process and commitment to serving our patients' needs. Our values of innovation, urgency, teamwork and inclusion will play a pivotal role in ensuring that we not only achieve our vision but do so in a manner that aligns with our core principles.

Our company's journey began two years ago, in April of 2021, when I founded FibroBiologics by spinning out the most advanced clinical programs and intellectual property from a previous company, FibroGenesis. Our mission is to harness the immune modulation and regenerative potential of fibroblasts to treat and cure chronic diseases.

What most people don't know is that the stem cell revolution actually began with fibroblasts. Dr. Shinya Yamanaka, who won the Nobel Prize in 2012 for his pioneering work with induced pluripotent stem cells, ignited a global race for stem cell advancement with his groundbreaking discovery. His research involved the reprogramming of adult cells, particularly fibroblasts, into pluripotent stem cells, a development that resonated worldwide and significantly influenced the field of cell therapy.

As breakthroughs in the lab led to first-in-human trials for stem cells, we recognized the potential therapeutic benefits of fibroblasts and began to develop the science around this "new" cell source. Fibroblasts, one of the most abundant cells in the human body and present in all tissues and systems, have demonstrated similar characteristics as stem cells, but appear to be a better cell source due to their potency, ease of use, improved therapeutic benefit and much lower cost.

While challenging our scientists to explore the "edge of the envelope" for the clinical applications of fibroblasts, we discovered that fibroblasts were involved in many of the body's biological processes. The potential curative benefits of fibroblasts seem almost endless. At FibroBiologics, we are dedicated to achieving treatments and/or cures for chronic diseases using this unique, potent and abundant cell source.

Since the founding of FibroBiologics, we have achieved significant milestones, including the appointment of key leadership positions, the establishment of robust corporate governance, a world renowned scientific advisory board, successful financing efforts, the build out of critical infrastructure, and ongoing development and validation of our pipeline of fibroblast candidates.

On the leadership front, we have appointed Dr. Hamid Khoja as Chief Scientific Officer to lead and propel our research, development, and pipeline advancement. His expertise and leadership played a pivotal role in assembling our top-tier team of scientists, ensuring that our company remains at the forefront of scientific innovation.

To support our financial planning and implementation, we appointed Mark Andersen as our first Chief Financial Officer in 2022. This signifies a crucial step in our company's growth. Mark assumed the leadership role in our strategic financial decision-making to steer the company towards a successful entry into the public market and thus enhancing our overall financial stability and prospects.

Mark was instrumental in the success of our public funding campaign with Start Engine. During this round of financing, FibroBiologics set the record as the fastest rising biotech in the history of Start Engine surpassing $1 million of new investments on the first day of our Reg CF offering, and raised a total of nearly $5 million, which is the maximum allowed in a Reg CF offering.

We've also established the formation of our Scientific Advisory Board, comprised of a distinguished group of world-renowned scientists and clinicians. This eminent group of experts collaborates with us to provide invaluable guidance, insights, and expertise in navigating the complex scientific landscape, ensuring the highest standards of quality, safety, and efficacy for our products.

In May of 2022, we presented preclinical and safety-centered limited clinical trial data for the single-dose infusion of tolerogenic human dermal fibroblasts, or HDFs, at the 2022 Consortium of Multiple Sclerosis Centers Annual Meeting.

Results indicated that administration of HDFs in the animal model of Multiple Sclerosis led to a Treg-dependent disease inhibition that was significantly better than that achieved with adipose or bone marrow-derived mesenchymal stem cells.

In addition, the safety clinical trial primary outcome indicated a strong correlation for complete blood count, blood chemistry, and electrocardiogram data for all patients when compared to pre-infusion test results with no adverse events reported.

Finally, we recently announced the opening and dedication of our Newlin-Linscomb Lab for Cell Therapeutics within the University of Houston Innovation Center. This new, state-of-the-art facility provides us with the opportunity to expand our scientific team to expedite the pace of our R&D and manufacturing to bring therapeutics and potential cures for chronic diseases to patients sooner.

As we transition to the next session on the Science and Business Strategy, let's explore how we are channeling this momentum to redefine the landscape of chronic disease treatments.

There have been hundreds of billions of dollars spent on the research and development of chemical compounds and humanized antibodies to treat chronic disease. However, after sixty plus years, cures for chronic diseases using these products have eluded us. At FibroBiologics, we believe cures for chronic diseases will come from cell therapies, gene therapies and immunotherapies. Think about it, chronic diseases are caused by defects in the biologic process of the body. It will take another biologic process to cure the defect – and we believe that will not come from an external man-made compound.

While there is quite a bit of work being carried out in developing stems cells for the treatment of chronic diseases, we believe that fibroblasts are a more practical and economical alternative to stem cells. Much like stem cells, fibroblasts can differentiate to various cell types. Fibroblasts also maintain stem cell niches in the heart, lung, liver, kidney, skin and intestines. Additionally, fibroblasts are a more potent anti-inflammatory modulator. Our human trials have also indicated no adverse events with intravenous administration of fibroblasts, so they can be considered as an allogeneic universal donor.

- As one of the most abundant cells in the human body, present in all tissues and systems, Fibroblasts outnumber stem cells 5,000 to 1 in the human body and are more economical to isolate, culture, and expand as compared to stem cells.

With a robust patent portfolio spanning a diverse array of clinical applications, FibroBiologics stands as the leader in the treatment of chronic diseases using fibroblasts.

I would now like to turn it over to Dr. Neil Bhowmick, the Director of the Cancer Biology Program at the Cedars-Sinai Cancer Institute and Professor of Medicine at the Cedars-Sinai Medical Center at the University of California, Los Angeles to discuss the science more in-depth and the promise of fibroblasts in cell therapy.

Dr. Bhowmick is credited for defining the role of fibroblasts in cancer initiation as an alternative mechanism of the familiar two-hit hypothesis where one epigenetic alteration is in the fibroblasts, complementing a mutation in the epithelia. Dr. Bhowmick then went on to discover the role of fibroblasts in cancer therapy resistance and has used this finding to extend the time of cancer remission in multiple cancer types in preclinical and clinical examples. We are proud that he is an inaugural member of our scientific advisory board.

Dr. Bhowmick:

I have been working on fibroblasts for about 25 years. Fibroblasts are part of nearly all organs of the body and make up the underlying cells of the skin – it is the most abundant cell type we have. It serves as supporting cells, both physically and as a source of factors that maintain tissue integrity. I initially identified its role in tumor initiation and progression and more recently on its role in therapy resistance for cancer patients. I have since studied the role of fibroblasts in inflammation, the root cause of many diseases including diabetes, wound healing, multiple sclerosis, rheumatoid arthritis, lupus, and of course cancer.

When you delve down into the reason why these long skinny cells, fibroblasts, can have such broad effects, you find that they inherently express a number of factors that can in fact suppress inflammation. Another interesting facet of fibroblasts is that they are quite plastic – meaning, they can take on features of many cell types. This is reminiscent of course to stem cells. As evidence, induced pluripotent stem cells (iPSC as they are called) were the result of specific modifications to fibroblasts. Stem cells have received a lot of attention, especially in the fields of organ regeneration and cell therapy.

Unfortunately, there are some technical challenges to stem cell therapy that are yet to be overcome, the biggest of which is reproducible expansion. Which means that they are hard to grow in the large quantities required for therapeutic applications in patients. Brute force methods that have been used can be expensive. Another stem cell type that is a bit more amenable to expansion are a slightly more differentiated version called mesenchymal stem cells. These are nice since they too have inflammatory suppressive properties. However, these are unfortunately difficult to source and are also expensive to expand due to all the additives that are needed to propagate these cells.

I have been involved in mesenchymal stem cell-based clinical trials and, unfortunately, we weren't able to move forward after a Phase I trial in that study.

In contrast, fibroblasts are the most abundant cell type in your body, so pretty easy to source. FibroBiologics, as far as I know uses skin as its source. Since fibroblasts are easy to grow, scaling up is not difficult. Now, fibroblasts don't have all the features of stem cells, but it does seem to maintain the anti-inflammatory aspect. The main limitation of unmodified fibroblasts is research is still exploring the many cell types it can become.

Hamid has been working hard since he started at FibroBiologics in the treatment formulations, I am sure he will expand on. From what I have learned, he is considering giving the fibroblasts to patients not as individual cells, but rather in spheroids. This is pretty neat since it takes advantage of the natural state of fibroblasts needing each other to survive. This has resulted in not just better growth, but longer half-life of these cells. This is of course important so the effects can be a bit longer lasting for all the factors they secrete to hang around longer and provide the desired effect.

Because of the broad applications of the many features of fibroblasts, there are many aspects that are yet untapped in the realm of cell therapy. Lupus and cancer are just a few lines of research I am aware of outside of their current pursuits in skin wound healing, vertebral disk repair, and multiple sclerosis. You have to remember, much of what has been considered thus far has been with unmodified fibroblasts – just what can be grown straight from the skin. There are so many ways to skew fibroblasts with reagents or even genetic manipulation that would essentially expand the repertoire of possible interventions and targets significantly. This can mean the fibroblasts could gain traits to home to automatically to the site of disease or express a needed factor that the fibroblasts may not make naturally. As I am a cancer researcher, so such applications in cancer would seem more evident than others.

Pete O'Heeron:

You might be curious about our strategy for expansion, how we intend to seamlessly transition candidates from the lab to the clinic, and ultimately deliver essential treatments to patients. Allow us to guide you through our plan to achieve precisely that.

As we develop our clinical pathways, other indications may present. These indications allow diversification within each pathway. We view many of our disease paths as platform opportunities, so we will see expansion of our wound care program into areas such as consumer products, surgical dressings and burn care. We've already filed intellectual property in these areas and we continue to expand our leading position on fibroblasts. We are currently using a GMP contract manufacturing facility but are planning to bring that in-house as part of our future plans.

While we believe we have the innovation, science and business strategy to successfully set FibroBiologics up as a world leader in cell therapy, we can only do so through the combined efforts of our outstanding leadership team.

I would now like to take a moment to discuss the company's commitment to good governance.

At FibroBiologics, we recognize that strong governance is the bedrock of sustainable success. We are proud to affirm our unwavering commitment to maintaining the highest standards of governance, ensuring transparency, accountability, and fairness in all our operations. As we transition into a publicly traded company, this commitment becomes even more crucial.

Our Board of Directors plays a pivotal role in upholding these principles, supported by dedicated committees with clearly defined charters. Our Audit Committee diligently oversees financial reporting and internal controls, ensuring accuracy and reliability. The Compensation Committee ensures our remuneration practices align with both industry standards and shareholder interests, while the Nominating Committee oversees the composition of our board, ensuring a diverse and qualified leadership team.

In line with our pursuit of excellence, we have structured our board to meet Nasdaq listing requirements, with a majority of our directors being independent. To complement this, we have adopted policies mandated by Nasdaq, further underscoring our dedication to meeting the stringent governance standards set by the exchange.

Finally, our corporate culture is one that embraces the highest levels of integrity across all levels of the organization. This commitment to ethical conduct is not just a box to check; it's a guiding principle woven into the fabric of our company. We believe that a strong ethical foundation not only aligns with our values but also enhances our resilience and reputation in the marketplace.

As we journey into this new phase of growth and opportunity, I am excited about the positive impact our commitment to good governance will have on our stakeholders. Our future will be defined by sustained success and responsible business practices.

In addition to myself, I would like to introduce you to Mark Andersen, the Chief Financial Officer of FibroBiologics.

Mark joined FibroBiologics as Chief Financial Officer in June of 2022 to play a critical role in the company's strategic financial decision-making as we navigated the process of going public. Prior to his current role, he was the CFO and Vice President of Administration for the Indiana Biosciences Research Institute overseeing finance, human resources, legal and administrative functions and served in various financial leadership positions at Eli Lilly and Company in Global Treasury, Mergers and Acquisitions, Lilly USA, Corporate Financial Reporting, and Global Product Development.

I would also like to introduce our Chief Scientific Officer, Dr. Hamid Khoja. Dr. Khoja joined the team in August of 2021 to lead all research, development, and advancement for the pipeline of our cell therapy candidates. With over 25 years of leadership experience in the scientific realm, he has spearheaded numerous initiatives involving the advancement of cell-based genomic, proteomic, and epigenetics assays and tools. His expertise lies in the development of pioneering protocols and technologies, utilized extensively in the realms of drug discovery, development, and clinical diagnostics. Notably, he has held key roles at prominent organizations including Covaris, Genomic Solutions, Sequenom, and Eli Lilly and Company.

In addition to our experienced leadership team with successful track records in entrepreneurial startup companies and the life sciences industry, we have a board of directors with life sciences operational leadership experience, and a world-renowned scientific advisory board with relevant expertise.

We would like to introduce our board of directors who have a vast range of experience including fundraising, strategic planning and business and corporate development in oncology and rare diseases: Stacy Coen, Robert E. Hoffman, Matt Link, Dr. Victoria Niklas, and Richard C. Cilento Jr.

And our scientific advisory board includes world-class scientists and clinicians with specializations in fibroblasts, neural regeneration, advanced cell-based therapies and cell-based oncology research: Dr. Claudia Lucchinetti, Dr. Thomas Carmichael, Dr. Kate Rubins, Dr. Elizabeth Shpall, Dr. Bhowmick, whom you heard from earlier.

Both boards are comprised of seasoned industry veterans and have been key in providing strategic counsel to support our mission to advance and expand our pipeline of fibroblast-based cell therapies.

I will now turn it over to our Chief Scientific Officer, Dr. Hamid Khoja, to discuss our fibroblast technology and clinical and preclinical development progress.

Dr. Hamid Khoja:

Thank you, Pete. I am very excited to discuss the science behind our fibroblast technology and our progress as we continue to advance programs into the clinic.

We have a very innovative, economical, and scalable approach to the development of treatments and cures for multiple chronic diseases utilizing the pluripotency and immune modulation capability of fibroblasts. As Pete mentioned earlier, the stem cell revolution began with the fibroblasts Dr. Yamanaka used to generate the IPSCs in his 2012 Nobel Prize winning work.

In fact, fibroblasts continue to serve as the primary cells for generation of IPSCs. Our goal is to demonstrate the potential of directly using fibroblasts, and fibroblast-derived products in treating and curing a wide range of chronic diseases.

Studies have indicated that mesenchymal stem cells and fibroblasts share many surface markers in common, and can differentiate into many cells including adipocytes, chondrocytes, osteoblasts, hepatocytes, and cardiomyocytes, and can regulate the immune system. However, transcriptomic and epigenetic studies have indicated a clear difference between the two cell types.

As one of the most abundant cells in the body, fibroblasts comprise the main cell type of connective tissue, possessing a spindle-shaped morphology, and responsible for the secretion and maintenance of the extracellular matrix responsible for maintaining the structural integrity of all tissues and organs.

Fibroblasts also play an extensive role in tissue repair and maintenance in organs including skin.

We are focused on developing and commercializing fibroblast-based therapies for patients suffering from chronic diseases with significant unmet medical needs, including degenerative disc disease, multiple sclerosis, wound healing, certain cancers, and potential extension of life applications including thymic involution reversal.

Having established our goal to demonstrate the therapeutic potential of direct-utilizing fibroblasts and fibroblast-derived products for treating various chronic diseases, we would like to introduce our pipeline.

We have a pipeline of product candidates at various stages of development, including: CYMS101 for multiple sclerosis, CybroCell for the treatment of degenerative disc disease and CYWC628 for chronic wound healing. Additionally, we have promising early-stage research on CYTER915 for extension of life and TCB190 as a cancer immune therapy.

According to research published in the Global Spine Journal by Andersen et al., approximately 266.0 million individuals worldwide suffer from degenerative spinal disease and lower back pain each year.

Mattiuzzi et al. in their 2020 publication titled “Current Epidemiology of Low Back Pain” estimated the incidence, prevalence and disability-adjusted life years, or DALYs, of lower back pain at 245.9 million cases per year.

Degenerative disc disease therapeutics represents an approximately $26.0 billion per year market. In addition to therapeutics, degenerative disc disease results in approximately 1.2 million orthopedic surgeries per year, at a cost of approximately $60,000 to $100,000 each, in the United States alone.

Our goal is to use our proprietary culturing methods specifically developed for Cybrocell to differentiate allogeneic human dermal fibroblasts into chondrocyte-like cells for administration into the damaged areas of intravertebral discs.

In the clinic our goal is to utilize the differentiation characteristics of fibroblasts differentiated into chondrocyte-like cells to secrete and proteoglycans and collagen II in the damaged area of the disc and improve disc height. At the same time, immune modulation characteristics of fibroblasts will reduce inflammation in the area thereby reducing pain and increasing mobility.

To date we have completed two animal studies the results of which have been published in peer review journals. The studies indicated a significant increase in disc height, reduction in inflammation markers, and increase in expression of collagen type I and II. Additionally, our data indicated that the cells remained in the disc and did not migrate.

The positive results from the pre-clinical animal model studies led to a “first in human” trial approval. The technology allowed for differentiation of the HDFs into chondrocytes and the cells thrived in the spinal disc environment.

We have received FDA IND clearance for a Phase 1/2 clinical trial, which we plan to initiate in 2025.

We are currently in the process of finalizing the experimental cell bank production which will be transferred to a contract development and manufacturing organization, or CDMO, for the manufacturing of the master cell bank and working cell bank per FDA requirements and will submit the necessary documentation to the FDA. we are in the process of finalizing a contract with a CDMO for carrying out this work.

The MS drug market’s annual revenue is approximately $24.0 billion globally.

- 48% of the revenues generated in the United States.
- The key companies in this market include Biogen Inc., F. Hoffmann-La Roche Ltd., Sanofi, and Novartis AG.

Both private and public organizations are increasing their investments in search of better treatments for this complex disease, including treatments that restore lost function.

Additionally, government initiatives to improve access to MS drugs in developing economies are another driver of future growth in the MS market.

While there are more than 20 approved treatments, most of them have serious adverse effects and there are presently no cures. Treatments currently available for MS include steroids for temporary flare-ups, disease-modifying drugs, and drugs that target specific symptoms such as balance, vision, spasticity, sexual dysfunction, and bladder or bowel control.

The mechanism of action of current MS disease-modifying drugs is to block the host's immune-mediated attacks on the nerves to inhibit or minimize the progressive destruction of myelin.

While these drugs may reduce the frequency of exacerbations and slow the disease progression from inducing further nerve damage, there is no myelin or nerve regenerative capability in any of them to restore the cumulative damage already in place.

Additionally, as the disease progresses further, the ability for any of these drugs to effectively block immune-mediated myelin or nerve destruction becomes more blunted. Most MS drugs come with identified risks and side effects, including "black box" warnings.

Based on data from our pre-clinical animal model studies, we believe there are several potential applications of fibroblasts in treating Multiple Sclerosis, including:

- Immune modulation to reduce inflammation and control the proliferation of pathogenic T cells.
- Stimulates oligodendrocyte expansion and remyelination.
- Stimulates endogenous neural stem cells.

Let's discuss some of our preclinical and clinical data to highlight how potent of an immune modulator these fibroblasts cells are.

We utilized a widely used Experimental Autoimmune Encephalomyelitis (EAE) animal odel for pre-clinical study of fibroblasts as a potential treatment for MS. The results of our studies have demonstrated that:

- Fibroblasts are more potent immune modulators as compared to adipose and bone marrow derived mesenchymal stem cells.
- Fibroblasts significantly increased expansion of T regulatory cells, while suppressing reactive Th17 cells which have been identified as an important mediator of MS pathology.
- Fibroblasts also significantly Inhibited the maturation of dendritic cells.
- We also demonstrated that fibroblasts significantly downregulate cell surface markers responsible for inflammation, while upregulating anti-inflammatory cytokines and PDL-1.
- Immunohistochemistry staining of the brain and spinal cords of the animals in the study demonstrated significant suppression of microglia activation, and an increase in myelin expression.

In our 5-patient clinical phase 0/I safety clinical trial, as a primary outcome, we saw no adverse effects during the 16-week monitoring of fibroblast treated patients.

As a secondary outcome, our data indicates efficacy in several neurological tests used to assess MS progression which is encouraging, but due to the limited patient group in the study, we will have to carry out a larger patient size phase II study to assess significance.

Additionally, during the 16-week treatment with fibroblasts none of the patients exhibited any episodes, or further deterioration as determined by MRI.

In our next Phase 1/2 clinical trials we will aim to treat a larger patient base over a longer period of time and determine the optimal treatment dosage and frequency with an 18-24 month follow up.

The wound care market size was valued at approximately $17.0 billion globally in 2021, with more than half of the revenue generated in the United States and Europe, and, according to Fortune Business Insights published in March 2022, was projected to grow to approximately $28.0 billion by 2029.

The rising prevalence of chronic diseases globally is leading to increased incidence of chronic wounds, including diabetic foot ulcers, pressure ulcers and venous leg ulcers. The huge economic cost burden exerted by chronic and acute wounds has led to an increase in initiatives being undertaken by governments worldwide to create awareness among the general population for early diagnosis and effective treatments of wounds.

These initiatives, along with improving reimbursement policies for wound care in these countries, are anticipated to drive the adoption of wound care products and lead to continued growth in this market.
Several cell and cell-product and allograft-based treatments are presently available for treatment of chronic wounds, including Apligraf, Grafix, DermACELL and TheraSkin.

Fibroblasts are involved in every single stage of wound healing.

- Fibroblasts secrete chemokines and cytokines that direct immune cells to the cite of injury.
- Provide support for other cells associated in wound healing for angiogenesis and epithelialization by secretion of the necessary growth factors.
- Recruit stem cells for differentiation.
- Breakdown the fibrin clot.
- Contraction of the wound by differentiation into myofibroblasts.
- Control scarring through tissue remodeling.

The results of our pre-clinical animal model studies have been quite encouraging.

- To date, we have demonstrated accelerated chronic wound healing with fibroblast cells and fibroblast-derived products.
- 60% reduction in chronic wound area with fibroblasts within 4 days of treatment as compared to 30% with an FDA approved product for DFU treatment.
- Significant acceleration of wound healing in chronic and non-chronic wounds.

We have designed a phase I/II clinical trial to determine the safety and efficacy of topically administered fibroblast spheroids for the treatment of DFU.

Based upon our results achieved to date, we plan to pursue a Phase I/II clinical trial in Australia in 2024.

As mentioned earlier we also have exciting early discovery phase projects in thymic involution reversal, cancer immunotherapy and additional projects in progress that we look forward to sharing meaningful experimental data about in the near future.

Thymus is the teaching center of the immune system, however, in humans the half-life of this very important organ in only 15.7 years. That means that by the time humans reach an age of 60, they have already lost >90% of function of the thymus.

In the elderly, publications have implanted this loss of function to:

- Reduced response of vaccination.
- Increased risk of cancer.
- Increased risk of autoimmune disorders.
- Increased susceptibility to infection.

Based on data from the NIH, 95% of healthcare spending for older Americans is for chronic diseases.

We currently have an animal model study to demonstrate the potential of reversing thymic involution in aged mice using allogeneic and autologous fibroblasts. The efficacy of the treatment will be assessed by assaying for total thymic cellularity, thymic epithelia cell cellularity, and T cell development.

We also have initiated an early phase study for the potential use of fibroblast in the treatment of cancer and cancer associated disorders.

Our projects include:

- Use of fibroblasts as treatment for cachexia, cytokine storm treatment, and oncolytic virus vectors
- Use of fibroblasts for delivery of siRNA for a combination cell therapy and gene silencing.
- Use of fibroblasts as adjuvants to cellular immunotherapy.
- Use of modified fibroblasts as cancer potential cancer vaccines.
- In summary, fibroblasts are a platform technology for developing treatments and cures for chronic diseases.
- More cost effective to isolate, culture and maintain than stem cells.
- Clinically proven safe as an injectable therapy in DDD, and as an infusion for MS.
- Significant potential use of fibroblasts cells and/or fibroblast-derived products for accelerating wound healing, and Potential treatments for autoimmune disorders.
- We maintain and continue to grow our extensive patent portfolio on the use of fibroblasts in treating multiple chronic diseases.

I would now like to hand it over to our CFO, Mark, to discuss our financial roadmap and outlook.

Mark Anderson

Thank you, Hamid.

FibroBiologics has a strong balance sheet having raised more than $16 million in 2023. Earlier this year, we converted all of our debt into equity, so the company has no outstanding debt.

We had $11.4 million in cash on hand as of June 30, 2023, which is sufficient to support our ongoing operations through December 31, 2024.

The company will utilize its existing capital to purchase laboratory equipment, develop a master cell bank and working cell bank to be utilized in future clinical trials, file an IND in wound care, prepare to initiate clinical trials for its product candidates, and continue its early research in thymic involution reversal, cancer and other indications.

In addition to existing capital, the Company is planning to raise additional funds of $30 million or more to enable clinical trials expenditures that will extend beyond 2024.

This additional capital will enable us to initiate clinical trials in each of our three product candidates and demonstrate wound healing proof of concept in CYWC628, while advancing our early-stage research.

Thank you for your time listening in today and I will hand it back to Pete.

Pete O'Heeron:

Thank you, Mark. This is a significant moment in the history of our company.

Taking our company public through a direct listing is the next step in achieving our mission to become the world leader in cell therapies to treat and cure chronic diseases. We thank all of our investors, old and new, who have stood beside us in this process and look forward to this new phase of our company.

We understand that you may have many questions about our presentation. We encourage you to reach out to continue our discussions here today. To contact us please email FibroBiologicsIR@russopr.com where our investor relations teams can direct and address any questions or comments you may have.

Thanks again for joining us today and we look forward to sharing further updates with you soon. I will pass it back to Liz to open it up to Q&A.

Liz Phillips:

This concludes the presentation section of the FibroBiologics Investor Day Webinar. We will now turn to the Q&A section of this webinar.