NEWS RELEASE

Thymmune Therapeutics Receives $37M in Funding from the National Institutes of Health's Advanced Research Projects Agency for Health (ARPA-H)

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CAMBRIDGE, Mass.--(BUSINESS WIRE)-- **Thymmune Therapeutics**, a biotechnology company developing scalable thymic cell therapies to restore immune function in aging and disease, today announced that the U.S. Department of Health and Human Services, through the Advanced Research Projects Agency for Health (ARPA-H) has awarded up to $37 million in funding to the Thymus Rejuvenation project. This is the first industry project funded by the ARPA-H **Open Broad Agency Announcement**.

The Thymus Rejuvenation project, led by Thymmune Therapeutics, aims to restore damaged or non-functional thymus tissue. Using laboratory methods, scientists can turn cells into different tissue types, eventually growing into functional thymus tissue for a patient, and allowing for a “reboot” of immunity. ARPA-H funding will not only advance the treatment towards clinical development but also aim to effectively treat a broader range of clinical indications related to immune depletion as we age. This effort builds on ARPA-H’s ongoing work to improve health outcomes for all Americans.

More than 10,000 new patients are diagnosed each year with a thymus disorder, often related to congenital defects, cancer treatments, or autoimmune disorders. More broadly, thymus function naturally declines with age, which can contribute to poorer immune system function, and lead to increased vulnerability to illness and poorer health outcomes.

The thymus is a critical organ in the immune system that regulates and develops T cells, which are essential for fighting infection and disease, along with mounting effective responses to vaccines. As part of the natural aging process, the functional thymus begins to shrink and its ability to produce naïve T cells decreases, leading to

immune dysfunction and disease. For children born without a thymus, those with thymus defects and elderly patients with failing immune function, restoring thymus function could be a game changer in their health and quality of life.

"We're thrilled to announce this recent support from ARPA-H. This funding will empower us to reshape drug development by harnessing cutting-edge advancements in thymus biology, iPSC technology, and machine learning," said Dr. Stan Wang, Founder & CEO of Thymmune. "Drawing from decades of dedicated research on the thymus gland, our approach has the potential to revolutionize immunology through the creation of innovative therapies for patients in need with a range of immune system disorders."

The Thymus Rejuvenation project is divided into two phases. The goal of the first phase is to make best-in-class human induced pluripotent stem cell-derived thymic epithelial cells (iPS-TECs) to restore T cell development in thymic deficient animals, and slow immune decline in animal models of aging. In the second phase, Thymmune plans to scale up the production of iPS-TECs for transplantation and engraftment in animal models to achieve effective immune function, demonstrating a clinical pathway to treat patients lacking a functional thymus.

Thymmune's disease-agnostic approach to combat thymus dysfunction by bolstering immune responses against pathogens, cancer, and vaccines presents a potentially revolutionary means to reboot immunity. Thymmune has the potential to both rescue patients lacking a functional thymus from morbidity and mortality and addresses a crucial unmet need to rejuvenate immunity in the aging population.

About Thymmune

Thymmune is a biotechnology company developing a machine learning-enabled thymic cell engineering platform to restore normal immune function in aging and disease. The company's cutting-edge approach in iPSC-thymic cell manufacturing can generate off-the-shelf cells at scale. The company is developing a pipeline of therapies to treat immunodeficiencies, transplant related, and autoimmune diseases. Thymmune is based in Cambridge, MA. For more information, visit **www.thymmune.com**.

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