



THE SUMMARY OF TECHNOLOGY

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(non-confidential)

Aging and stress can lead to inflammation. Most times, stress-related inflammation resolves itself, but sometimes it becomes a chronic condition. Chronic inflammation causes pain, limits physical activity and leads to irreversible damage to our body. The goal of SENEX is to break the cycle of chronic inflammation by resetting the pro-inflammatory environment (pro-inflammatory senescent cells) back to normal function.

SENEX focuses on treating chronic inflammatory diseases using gene therapy. The company's initial focus is on Pulmonary Arterial Hypertension (PAH) and Osteoarthritis (OA) diseases. The technology was validated in small and large animal models, and in a pilot clinical study in pets, diagnosed with naturally occurring PAH or OA. The findings were published in top-ranked scientific journals. The technology was originally developed at Icahn School of Medicine at Mount Sinai by Dr. Efrat Eliyahu, Assistant Professor of Genetic and Genomic Sciences. SENEX acquired the exclusive license from Mount Sinai in 2023.

Dr. Eliyahu is a co-founder of SENEX and serves as a Head of the Scientific Advisory Board. SENEX is lead by Oded Biran, co-founder, President and CEO, who has a history of successfully leading biotechnology companies. Most recently Oded co-founded a biotech diagnostic company, which achieve profitability within 4 years of inception. SENEX also has an animal health division, Khepri, led by co-founders Dr. Natasha Shtraizent and Dr. Philip Putter.

Our mission is to alleviate suffering from chronic inflammatory diseases for humans and animals at any age.

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SENEX's gene therapy is a disease-modifying treatment. Here is how it eliminates the source of chronic inflammation. Stress and ageing lead to buildup of ceramide lipid in cells, which makes cells switch from functional to static (senescent). Senescent cells continuously release pro-inflammatory factors and persistently stimulate immune cells. Over-stimulation of immune system causes tissue damage and functional impairments of the body. SENEX is using a unique adeno-associated virus to deliver a therapeutic gene to the site of inflammation. The gene codes for Acid Ceramidase, a protein that can break down ceramide, reverse senescence, and break the cycle of persistent pro-inflammatory stimulation. The tissue soon regenerates and restores its normal function.

