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ZenBio, Inc. Awarded a Phase II SBIR Grant for Tuned Stem Cell Extracellular Vesicles as a Novel Chronic Wound Therapeutic

RESEARCH TRIANGLE PARK, NC - ZenBio, Inc., a North Carolina-based biotechnology company, has been awarded a Phase II SBIR grant from the National Institutes on Aging to develop stem cell-derived extracellular vesicles as a therapy for chronic non-healing wounds in the elderly. The award will support the continued development of ZenBio's adult stem cell tuning technology to generate extracellular vesicle therapeutics enriched for pro-healing factors specifically for age-related chronic wounds.

In the United States alone, 6.5 million people annually suffer with chronic wounds, such as venous leg ulcers, pressure ulcers and diabetic ulcers, which are all over-represented in the elderly. The high recurrence rate and failure to respond to current therapies can lead to additional complications and results in over \$25 billion in annual health care costs. "There is a real clinical need for new regenerative medicine approaches to heal these wounds," said Dr. Renee Lea-Currie, Director of Cell Biology and grant co-PI. "Extracellular vesicles from adult stem cells may provide just such a cost-effective tissue regeneration therapy."

Dr. John Ludlow, Executive Director of Regenerative Medicine at ZenBio and grant co-PI, said "Our technology takes advantage of environmental cues to induce adult stem cells to produce extracellular vesicles enriched for factors to improve chronic wound healing. By using our bioreactor, we can cost-effectively and reliably manufacture extracellular vesicle at the scale needed for therapeutics." ZenBio will collaborate with Dr. Jeff Gimble and his group at LaCell, LLC and Obatala Sciences, Inc. using their pressure ulcer model to verify the healing capability of the tuned extracellular vesicles.

About ZenBio, Inc.

ZenBio, Inc., a privately held biotechnology company, is a leading provider of research tools for the study of human metabolic disease and other disorders. Founded in 1995, the company performs contract research for major pharmaceutical, personal-care and biotechnology companies around the world. ZenBio also provides human primary stem cells, exosomes and exosome isolation and characterization services.

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