RenewalBio
RENEWING HUMAN HEALTH

Company name: RenewalBio | Website: www.renewal.bio
CEO name: Dr. Vladislav Krupalnik | CSO name (presenting): Dr. Ohad Gafni

Category: Biotech/Pharma
Session: The Future of Aging: Where Longevity Meets Innovation

Title: Stembroids - Pluripotent Stem Cell Differentiation Platform as a Novel Source for Patient Specific Transplantable Cells

• Executive Summary:
RenewalBio's platform aims to address the global shortage of high-quality cells for transplantation and advancing the science of human rejuvenation. The platform generates patient-specific cells from iPSCs by mimicking natural development through 3D organoid models called Stembroids. Stembroids replicate key stages of human development, creating a microenvironment that facilitates precise spatial organization and intrinsic signaling for authentic cell differentiation.

• Core Technology: What is the technology, its uniqueness, and its value proposition?
RenewalBio's platform utilizes innovative 3D human developmental models called "stembroids," derived from iPSCs, through three patented technologies. These include a naïve media for enhanced differentiation, a stembroid generation process ensuring ethical differentiation, and a specialized culture device for optimal cell development, enabling the creation of authentic, functional cells for therapeutic applications.

• Product Profile/Pipeline: Briefly describe the company's product/pipeline, status, and market potential. Discuss milestones, potential collaborations, and partnerships.
Stembroids replicate the spatial organization and signaling pathways affecting critical embryonic processes, enhancing the quality and functionality of the derived Hematopoietic Stem and Progenitor Cells. This results in better engraftment and therapeutic outcomes, addressing the inconsistencies often seen in traditional in vitro differentiation methods that rely on external morphogen dosages and timing.

• Business Strategy: Briefly describe how the company will apply its core technology, generate short-term and long-term revenues.
RenewalBio's platform utilizes self-organizing principles to create superior patient-specific cell types, including neuronal (28+ dpf), hepatic progenitors (40+ dpf), and germline cells (70+ dpf), through natural developmental trajectories. This innovative approach addresses iPSC differentiation challenges and sets a new standard in regenerative medicine, enabling advancements in tissue engineering, fertility preservation, and organ regeneration.

• What's Next? R&D, Preclinical / Clinicals, Organizational Plans, Financial Plans

RenewalBio is dedicated to revolutionizing stembroid technology for preclinical trials focused on combating aplastic anemia, MDS, and enhancing longevity treatments. Our strategic initiatives involve perfecting culture conditions, optimizing cell isolation techniques, and implementing cryopreservation methods for sustainable long-term storage, guaranteeing immediate availability of life-changing treatments.