CUHK BME – iTERM Joint Seminar

More Than Skin Deep – Soft Tissue Regeneration from Mouse to Man

Professor Sashank Reddy

Paul N. Manson / Hansjoerg Wyss Associate Professor of Plastic and Reconstructive Surgery

Johns Hopkins University

Date : 14 September 2026 (Monday)

Time : 10:00 am

Venue : Room 1122, William M W Mong Engineering Building, CUHK

Abstract

We will be discussing soft tissue growth and regeneration in murine model systems and the application of these technologies to clinical problems. Specific topics to be covered include: (1) mechanisms by which mechanical tension drives skin growth, (2) age related decline in skin regeneration, using wound-induced hair neogenesis as a quantitative index of regenerative capacity, and (3) development of biodegradable, composite nanomaterials to support vascularized soft tissue restoration. We will also discuss principles by which academic discoveries can be translated into clinical and commercially viable solutions.

Biography

Sashank Reddy, MD, PhD is the Paul N. Manson / Hansjoerg Wyss Associate Professor of Plastic and Reconstructive Surgery at Johns Hopkins. He is a surgeon-scientist, inventor, and entrepreneur with a proven track-record of advancing technologies from the bench into commercially viable entities to improve human health. He runs an NIH-funded research program working at the interface of regenerative medicine and aging. Current areas of focus include (1) skin and hair follicle regeneration, (2) mechanisms governing size control in skin, (3) adipocyte programming for metabolic disease, and (4) genomic recording of age-related functional decline. Dr. Reddy's discoveries have been published in leading journals including Nature, Cell, Cell Stem Cell, Science Translational Medicine, and Science Advances. In recognition of the regional, national, and international impact of his work, Dr. Reddy has garnered numerous professional accolades including the Hoopes Academic Scholar Award and the BCRF Research Award from the American Association of Plastic Surgeons, the Catalyst Award, Discovery Award, and Clinician Scientist Award from Johns Hopkins University, and the McCarthy Scholarship from the American Society of Craniomaxillofacial Surgeons. As a practicing reconstructive surgeon, he brings practical experience to the development of novel therapeutics and devices. As a serial entrepreneur with experience working at leading venture creation firms Third Rock Ventures and Flagship Pioneering, he has created biotechnology companies that have raised over $70M in venture capital. Through his work as the Medical Director for Johns Hopkins Technology Ventures and Associate Director of the Institute for NanoBioTechnology, Dr. Reddy seeks to accelerate the commercialization of university discoveries. By leveraging his diverse expertise across medicine, science, and entrepreneurship, Dr. Reddy seeks to bridge the gap between fundamental discovery and clinically and commercially viable solutions, thereby magnifying economic and real-world impact.

***** ALL ARE WELCOME *****

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