

BIOENGINEERING SEMINAR: “TISSUE ENGINEERING: HOPE AND PROMISES— FUNDAMENTALS MEET REALITY”

Speakers: Drs. Hoda M. Elgendy & Jeffrey O. Hollinger

Location: ENGR 4201

Date Friday, April 7, 2017 12:30pm-1:30pm (*Lunch will be provided.*)

Abstract: Tissue engineering is a complex process involving a precise blend of biological molecules, cells and matrices. The clinical goal of tissue engineering is to regenerate form and function to tissues and organs. This clinical goal offers patients the hope and promise of a return to normal appearance and biomechanical function.

Today's seminar will provide some fundamental basics and clinical regenerative approaches used by Drs. Elgendy and Hollinger. Molecular, cellular and matrices used in tissue engineering by the seminar speakers will be highlighted. In addition, the speakers will share challenges and cutting edge solutions to accelerate the transitioning of tissue engineered therapies from the laboratory to the patient.



Biography: Dr. Hoda M. Elgendy obtained her Master's degree at Rutgers University, her PhD from Boston University and had a post-doctoral fellowship at Harvard Medical School/Massachusetts Institute of Technology, Health Sciences and Technology Program. Dr. Elgendy is a biotechnology entrepreneur with over 25 years of hands-on clinical translational research and management experience in biomedical sciences development. She has worked in biotechnology emphasizing business operational development, product lifecycle management, technology licensing, and partnership agreements. Dr. Elgendy brings a broad and thorough range of expertise in biomaterials, tissue engineering, regenerative medicine, musculoskeletal repair, biobanking technology, bioinformatics, polymer-based drug delivery systems, cellular

therapy authentication and reference standards and measurements infrastructure. She is well versed and skilled in these disciplines from the corporate, academic and federal sectors.

Biography: Dr. Hollinger graduated from Hofstra University with a Fine Arts degree under a music scholarship in 1969. He received his Dental Degree (DDS) and PhD from the University of Maryland in 1973 and 1981, respectively. He completed clinical programs at Ft Dix, NJ and Walter Reed Army Medical Center, Washington, DC in the United States Army. Dr. Hollinger retired in 1993 from the United States Army as a Colonel after serving 20 years of active duty. From 1993-2000 Dr. Hollinger was a tenured Professor at the Oregon Health Sciences University in the Departments of Surgery and Developmental Biology and directed the Northwest Wound Healing Center from 1993-2000.



Dr. Hollinger was a tenured Professor at Carnegie Mellon University (CMU) in the Departments of Biomedical Engineering and Biological Sciences and served as the Director for the Bone Tissue Engineering Center, CMU from 2000-2014. In 2014 he was honored by CMU with a Professor Emeritus - Biomedical Engineering.

Through his career, Dr. Hollinger has received more than \$50 million grant funding from the NIH, NSF, DoD and NIST as the principal or co-principal investigator. He has been a grant reviewer and section chairman for the aforementioned agencies. Dr. Hollinger currently is and has been a co-editor and manuscript reviewer for over 20 leading peer-reviewed clinical and basic science professional journals.

Dr. Hollinger has several patents and has licensed technology. He received the prestigious Clemson award in biomaterials in 2008. Dr. Hollinger has over 300 peer-reviewed publications, abstracts, text book chapters and text books on bone biology, bone grafting, biological factors, wound healing, tissue regeneration and biomaterials. His hobbies and interests include bicycling, playing the cello, gardening, reading biographies and autobiographies and involvement with the wounded warrior program.