

Department of Electrical and Computer Engineering

Center for Integrated Bio and Nano Systems

Friday, October 13, 2017

11:15 a.m. (Refreshments served at 12:15 pm)

Room: CBB 104

Bioengineering - A Personal Adventure

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DISTINGUISHED PROFESSOR

DEPARTMENT OF BIOMEDICAL ENGINEERING

University of Houston

Abstract: This presentation is a retrospective view of a number of projects that I have worked on over my career. Topics include scale up of antibiotic production, separations with artificial membranes, facilitated transport across membranes, diffusion in biological tissues, biomaterial characterization for vascular devices, optically based biosensors, use of muons for physiological imaging.

Bio: Professor Schultz received his B.S. and M.S. degrees in chemical engineering from Columbia University. His Ph.D. degree in biochemistry was awarded by the University of Wisconsin. He joined Lederle Laboratories, as a group leader in the Research Division developing new antibiotics, enzymes, and steroids. His academic career started at the University of Michigan's Department of Chemical Engineering in 1964 where, in addition to his professorial responsibilities, he led research in applied microbiology, biomaterials, and membrane separations. Dr. Schultz served as chairman of Chem. E. where he championed the concept of molecular engineering. He spent two years at NSF as Deputy Director for the Engineering Research Center Program.

In 1987 Dr. Schultz joined the University of Pittsburgh as Director of the newly established Center for Biotechnology and Bioengineering. This interdisciplinary research Center has programs in bioprocessing, biosensors, bioartificial organs and gene therapy. He was responsible for the establishment of the Bioengineering Department (and served as the Founding Chairman) with the initiation the B.S. M.S., and Ph.D. degrees. During 2001-2 Dr. Schultz served as an advisor to NASA's Ames Research Center in Mountain View, California, and contributed to their fundamental biology program initiatives.

In 2004 Dr. Schultz joined the University of California, Riverside as a Distinguished Professor and Founding Chairman Department of Bioengineering and Director of the Center for Bioengineering Research. Dr. Schultz joined the University of Houston in January 2017.

Dr. Schultz has served as chairman of the Biotechnology Division of the American Chemical Society and the Food, Pharmaceutical and Bioengineering Division of the American Institute of Chemical Engineers. He was the Editor-in-Chief of Biotechnology Progress, for 20 years. He helped organize the American Institute for Medical and Biological Engineering of which he is Past-President. Dr. Schultz was elected to the National Academy of Engineering in 1994 and serves on several NRC committees. He is a Fellow of AAAS, ACS, AIChE, and the Biomedical Engineering Society. He received the Marvin J. Johnson Biotechnology Award from the American Chemical Society and the Bioengineering Award from the American Institute of

Chemical Engineers. Recently he was named one of the “100 Chemical Engineers of the Modern Era” by the American Institute of Chemical Engineers.

Contact Prof. Dmitri Litvinov (litvinov@Central.UH.EDU) if you would like to arrange for a time to meet with Dr. Schultz.