



FLORIDA INTERNATIONAL UNIVERSITY

BIOMEDICAL ENGINEERING LECTURE SERIES ENGINEERING GALA

ACCELERATING BIOMEDICAL TECHNOLOGY INNOVATION: THE ROLE OF EDUCATION

Innovation is a process. As such, innovation can be intellectualized and taught. The educational program at Stanford is underpinned by cognitive science; see, "Preparing People for Rapidly Changing Environments", John Bransford, J. Engr. Edu., 2007. Initiated in 2001, the mission of the Innovation Fellowship in the Biodesign Program (<http://innovation.stanford.edu/jsp/program/about.jsp>) is to train tomorrow's leaders in medical technology innovation by teaching the process of technology innovation - defined as the creation of effective solutions to clinical needs. The elements of the year-long program include: (1) interdisciplinary, 4-person, team-based learning combining pre- and postdoctoral engineering, medical and business trainees; (2) intensive exposure to medical needs finding (unsolved clinical problems), characterization (including an immersive experience in the hospital and clinic) and validation; (3) hands-on process of invention, prototyping and early stage testing; (4) making use of the substantive readily available educational resources, including patenting, regulatory and reimbursement issues; and (5) mentoring the teams by experienced technology innovators, including Stanford faculty as well as a wide range of experts from different aspects of the "real-world" medical technology industry. The fellows also are involved with a 2-quarter Biodesign Innovation course that engages engineering, medical and business students in the innovation process.



John H. Linehan, Ph.D. is Consulting Professor of Bioengineering in Stanford University's Program in Biodesign and the Department of Bioengineering. Dr. Linehan is also Executive Editor of Bmesource.org, a new open-source web portal in biomedical engineering that originated at Stanford and is being developed by over 75 Universities across the United States. Linehan was Vice President of the Whitaker Foundation from 1998 – 2005. The Whitaker Foundation, having invested more than \$800 million primarily in biomedical engineering education and research in the past 30 years, closed its doors in June 2006. Prior to joining Whitaker in 1998, Linehan was the Rose Eannelli-Bagozzi professor of biomedical engineering and the founding Chair of the Department of Biomedical Engineering at Marquette University in Wisconsin. He is a fellow and past president of the Biomedical Engineering Society and a founding fellow and past president of the American Institute for Medical and Biological Engineering. In 2006, Linehan was elected to the National Academy of Engineering.

FRIDAY, FEBRUARY 23, 2007, 1:30PM

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Presented by:



**DEPARTMENT OF
BIOMEDICAL ENGINEERING**