Chemical Engineering Colloquium

October 23, 2019

12–12:50 p.m. | Goddard Hall, Room 227

Biomedical Sensing Devices for Cell on a Chip and NSF Perspectives

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Research funding, as is true of many opportunities, undergoes shifts. As funding levels change, priorities are altered, and application numbers vary, applicants should employ savvy strategies when seeking support. In this presentation, I will present my perspective of developing and sustaining collaborative research projects with particular emphasis on the research in the field of Biomedical Engineering and Bioinstrumentation such as biosensors. The presentation is based on my 25 years experiences gained during my own research, my service as a program director to the NSF Biosensing program and as an editor and reviewer of several flagship journals in the field of bioinstrumentation.

While the emphasis is on the funding opportunity of NSF Biosensing program, which supports fundamental engineering research on devices and methods for measurement and quantification of biological analytes, in keeping with the main aim of this talk of providing a perspective on sustainable project development, other research opportunities within the Chemical, Bioengineering, Environmental and Transport Systems (CBET) Division's “Bio clusters” within the Engineering Directorate of the National Science Foundation (NSF) will be provided. In addition, information about NSF crosscutting initiatives and training grants such as NSF Career Awards, NSF Engineering Research Center (ERC) and NSF Research Traineeship (NRT) will also be discussed.

Dr. Li is the Program Director of Biosensing program at National Science Foundation. He is also the professor of biomedical engineering, the director of Nanobioengineering/Biosensors Lab at Florida International University (FIU). Dr. Li is an expert in bioinstrumentation and bioelectronics, specifically in the development of biomedical devices for both diagnostic and therapeutic, which could also have cross-applications for environmental, food safety monitoring, agriculture, and homeland security.

The impact of Dr. Li’s research has been documented in 13 granted patents, about 150 peer-reviewed journal papers and 10 books and book chapters.

In recognition of his work, Dr. Li has received several awards and honors including the Kauffman Entrepreneurship Professor Award in 2009 and 2011, 2014 JSPS (Japan) Professor Fellowship Award, 2014 FIU Excellent Faculty Award in Research, 2016 Pioneer in Technology Development Award by the Society of Braining Mapping, 2016 the Finalist for FIU President’s Council Worlds Ahead Award, and 2016 Minority-Serving Institution Faculty Award in Cancer Research, by American Association for Cancer Research (AACR). He is the fellow of the American Institute for Medical and Biological Engineering (AIMBE) and the Section Editor of Biosensors and Bioelectronics and the Editor in Chief of the journal of Critical Review of Biomedical engineering.

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