



UCSD NANOENGINEERING SEMINAR SERIES
Wednesday October 19, 2011
11:00 am – 12:00 pm
Fung Auditorium

***LAB-ON-CHIP DEVICES FOR POINT-OF-CARE
DIAGNOSTICS AND MICROENVIRONMENTAL
CONTROL***

Dr. Yuhwa Lo

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Director of the UCSD Nano3 Facility (NanoScience, NanoEngineering, and
NanoMedicine)

ABSTRACT:

By reducing the entire medical instrument to a microfluidic chip and integrating microfluidics with photonics, acoustics, and electronics, a new generation of point-of-care devices can be produced to shift the technology paradigm of 21st century health care. In this talk we will present our research in microFACS (fluorescence activated cell sorter) and a new microfluidic lab-on-a-chip cell culture platform for microbes and mammalian cells.

BIOSKETCH:

Professor Yuhwa Lo received his PhD in electrical engineering from UC Berkeley in 1987. He was a Member of Technical Staff at Bellcore from 1988 to 1990. Between 1991 and 1999, he was in the faculty of School of Electrical Engineering, Cornell University. He is currently a UCSD professor and the director of Nano3 (NanoScience, NanoEngineering, and NanoMedicine) facility within the California Institute of Telecommunications and Information Technology (CALIT-2).

Dr. Lo maintains a broad interest in several research areas, including single-photon detectors, NanoPhotonics, lab-on-a-chip for biomedicine, medical devices, microfluidics, and biophotonics. He received NSF Career Award, Teaching Awards from Cornell University, Lilly Foundation Fellowship, Best Paper Award from the International Conference on InP and Related Compounds, CCAT (Center for Commercialization of Advanced Technology) Award, and NASA Innovation Award. Dr. Lo has published over 350 papers and (co)authored and edited 10 books and special issues. He was awarded 25 patents. He is a fellow of the Optical Society of America (OSA) and the Institute of Electrical and Electronics Engineers (IEEE).