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University Seminar Series
Sponsored by the Nanotechnology Graduate Program

Nanotheranostics for In Vitro Diagnosis, In Vivo Imaging and Drug/Gene Delivery

BY Dr. Xiaoyuan (Shawn) Chen
Laboratory of Molecular Imaging and Nanomedicine, National Institute of Biomedical Imaging and Bioengineering, National Institutes of Health

ABSTRACT

Theranostics is the portmanteau of therapeutics and diagnostics. Nanoparticle platforms with various structures and compositions show great potential as theranostics. This talk will highlight some recent advances in using biocompatible nanoparticle formulas for ultrasensitive detection of biomarkers, for in vivo imaging of cancer and for drug/gene delivery. Some practical issues of theranostic nanomedicine such as scaled up synthesis, rational design, nanotoxicity, regulatory hurdles, and return on capital (ROC) will also be briefly discussed.

BIOGRAPHY

Dr. Shawn Chen is a Senior Investigator and Lab Chief at NIH. His current research interests include development of molecular imaging toolbox for better understanding of biology, early diagnosis of disease, monitoring therapy response, and guiding drug discovery/development. His lab puts special emphasis on high-sensitivity nanosensors for biomarker detection and theranostic nanomedicine for imaging, gene and drug delivery, and monitoring of treatment. He received his BS (1993) and MS (1996) in chemistry from Nanjing University and PhD (1999) in chemistry from the University of Idaho. Dr. Chen has published over 400 peer-reviewed papers (H-index = 73, total citations > 20,000, over 50 papers IF ≥ 10) and numerous books and book chapters. He is the founding editor of journal "Theranostics" (2012 IF = 7.8).

EVENT DETAILS

DATE:
January 29, 2014

TIME:
11:00 AM

LOCATION:
Babbio 122
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ATTENDANCE:
Public