



UNIVERSITY OF UTAH
SCHOOL OF DENTISTRY



UNIVERSITY OF UTAH
SCHOOL OF MEDICINE

Multidisciplinary Global Health Research Seminar Series

Friday, May 22, 2015

12:00 pm to 1:00 pm

School of Dentistry (530 S Wakara Way)

Lecture Hall 2110

Integration of Nanoscience Strategies to Enable the Early Detection of Infectious Diseases: Tuberculosis as a Case Study

Presented by:

Marc Porter, Ph.D.



Marc D. Porter is a USTAR faculty member in the University of Utah's Chemistry, Chemical Engineering, Bioengineering, and Pathology departments. He is also the Director of the Nano Institute of Utah, which integrates researchers across Utah and the surrounding region into core research focus areas to address emerging "big science" questions in human health, energy, and the environment. His research interests include analytical chemistry, interfacial science, and nanotechnology. Porter and colleagues work on the development and validation of diagnostic tests using magnetoresistance (MR) and surface-enhanced Raman scattering (SERS) detection methodologies, to name a few. His laboratory has extensive experience in approaches to the quantifiable preparation of complex samples, content analysis (*e.g.*, high-throughput chromatography) and the standardization of bioanalytical methodologies. Current work, carried out with collaborators at the University and across the country, is pushing the boundaries in the detection of Category A pathogens (*i.e.*, anthrax, botulism, bubonic plague), tuberculosis (TB), dengue, pancreatic and prostate cancer, and Vitamin D. Work also continues in conjunction with collaborators at the USDA on new tests for Johne's disease, a form of mycobacterium disease in dairy cattle, and with scientists and engineers at NASA's Johnson Space Center on a technology crated in his laboratory for water quality assessments that is now deployed on the International Space Station. The work on TB has recently led to the formation of Porter Diagnostics, a new venture focused on moving this technology from the research laboratory to field clinics.