



Puerto Rico Technology Highlights

Wyndham Rio Mar Beach Resort and Spa
Tuesday, May 29, 2018
4:30 pm – 6:00 pm

The Puerto Rico Technology Highlights will provide EIPBN attendees an overview of the local nanoscience, photonics, and technology landscape in Puerto Rico, as well as ongoing efforts to rebuild the island following hurricanes Irma and Maria. The format of the session will be 15min-long presentations by local researchers and technology executives, followed by a Q&A session in a panel-style format.

Session Chairs:

Daron A. Westly, National Institute of Standards and Technology
Yajaira Sierra-Sastre, Panel Moderator

4:30 pm – 4:35 pm

Welcome and Introduction

4:35 pm

Emerging Opportunities for Research in Optics and Photonics at the Puerto Rico Photonics Institute, Andrés Díaz, Puerto Rico Photonics Institute, Universidad Metropolitana

Prof. Díaz is the Deputy Director and Academic Coordinator of the Puerto Rico Photonics Institute (PRPI) at Universidad Metropolitana. He is also the Principal Investigator of the NSF REU/RET (Research Experience for Undergraduates/Teachers) Program at the Arecibo Observatory. Prof. Díaz will be discussing the research, academic, and outreach programs at the Puerto Rico Photonics Institute and giving an overview of optics-related research at the Arecibo Observatory. He will also discuss how Hurricanes Irma and Maria affected both facilities and research programs and the recovery process.

4:50 pm

Nanomaterials for Cancer Research: Engineering the Road to Clinical Translation, Madeline Torres-Lugo, Department of Chemical Engineering, University of Puerto Rico (Mayaguez Campus)

Prof. Torres-Lugo is a fellow of the American Institute for Medical and Biological Engineering and the co-PI for a recently awarded \$20M NSF grant for the Engineering Center for Cell Manufacturing Technologies. The use of magnetic nanoparticles for therapeutic applications has been investigated for more than a decade. To this date many challenges are still hindering the clinical applications of such systems. Torres' research group focuses on applying engineering approaches to nanoparticle design, biological interactions, and custom clinical devices to pave the road for clinical translation. Torres' presentation will summarize her group's contributions and lessons learned.

5:05 pm

CREST Center for Innovation, Research and Education in Environmental Nanotechnology, Carlos R. Cabrera, Department of Chemistry, University of Puerto Rico (Rio Piedras Campus)

The new Center for Innovation, Research and Education in Environmental Nanotechnology is an NSF-funded strategic effort that involves collaborations with universities, national laboratories and industry to utilize nanomaterials research to address environmental pollution in the areas of 1) water and soil remediation, 2) sensors and environmental monitoring, and 3) nanomaterials for energy conversion.

5:20 pm

Puerto Rico Science, Technology and Research Trust, TBD

The mission of the Puerto Rico Science, Technology, and Research Trust is to advance the local economy through innovation driven enterprises, science, and technology. An overview of the entrepreneurial landscape on the island will be provided as well as an update on the rebuilding efforts following hurricanes Irma and Maria.

5:35 pm Panel Session and Q&A