



Brandywine Valley
Chapter

May Virtual Technical Meeting

Tuesday – May 4, 2021

Materials Research Grand Challenges, Evolving Capabilities, and the Push for Convergent Research

Dr. Linda Sapochak, National Science Foundation

Location: Virtual meeting with RingCentral:

<https://meetings.ringcentral.com/j/3995803236?pwd=a1RPeEJLYTdGeW9pYkxPdTRMR0pUQT09>

ID: 3995803236; Password: Materials1

Signup link for the event: <https://form.jotform.com/210748006229048>

Networking 7:00 PM, Presentation 7:30 PM , Cost: Free !!

Bio: Dr. Linda Sapochak is the Division Director for the Division of Materials Research (DMR) at NSF. She has worked in DMR since 2008 as Program Director for the Solid State and Materials Chemistry (SSMC) program (5 years), for the Materials Research Science and Engineering Center (MRSEC) program in 2014, and as Deputy Division Director in 2015. Dr. Sapochak also served as the Acting Deputy Division Director in the Chemistry Division in 2013 and 2014. She has managed additional projects including the Emerging Frontiers in Research and Innovation: Green Sustainable Buildings, Sustainable Energy Pathways, and I-Corps. Prior to her position at NSF, she was an Assistant Professor in the Chemistry Department at the University of Nevada Las Vegas. She later accepted a position at Pacific Northwest National Laboratory, a DOE national lab in the Energy and Efficiency Division to develop organic and inorganic electronic materials for solid state lighting applications. She has over 50 scientific publications, 16 patents and became an MRS Fellow in 2020.

Abstract: Today, material researchers have a higher responsibility to help the world meet the challenges facing society. Although materials research has expanded to include several disciplines and is inherently “interdisciplinary”, this is not enough. The requirements have (once again) increased due to the growing complexity of societal problems and their solutions. Materials researchers are now challenged to change their modes of operating to have cyclic synergism (“closing the loop”) with systems-level thinking (alongside the required deep exploration and understanding of details into fundamental mechanisms). Also, the field of materials research needs to further expand to embrace data and manufacturing scientists and to more fully engage environmental, social, and economic sciences. This presentation will explore the current landscape of materials research in the U.S. and how research communities will tackle a growing number of challenges going forward.