DMR – Where
Materials Begin
and Society
Benefits



Linda Sapochak, Division Director Division of Materials Research Mathematical & Physical Sciences



# New Leadership at NSF – new directions......



Sethuraman Panchanathan, NSF Director → "he doesn't hide his support for "use-inspired research."

T. I. P.



Sean L. Jones, Assistant Director, MPS

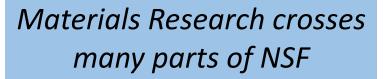
"When you engage in user-inspired research, the fundamental research questions that you ask yourself become different," he notes. "I would have never even seen some of the problems that I solved in computer science but for the fact that some of my work was use-inspired."

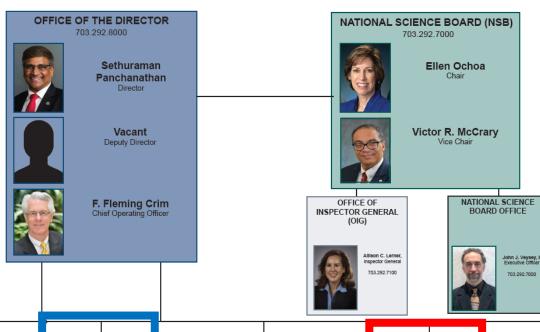






#### NATIONAL SCIENCE FOUNDATION



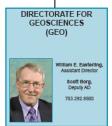


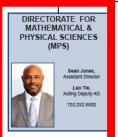






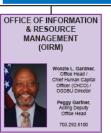




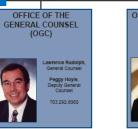






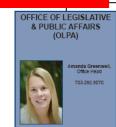










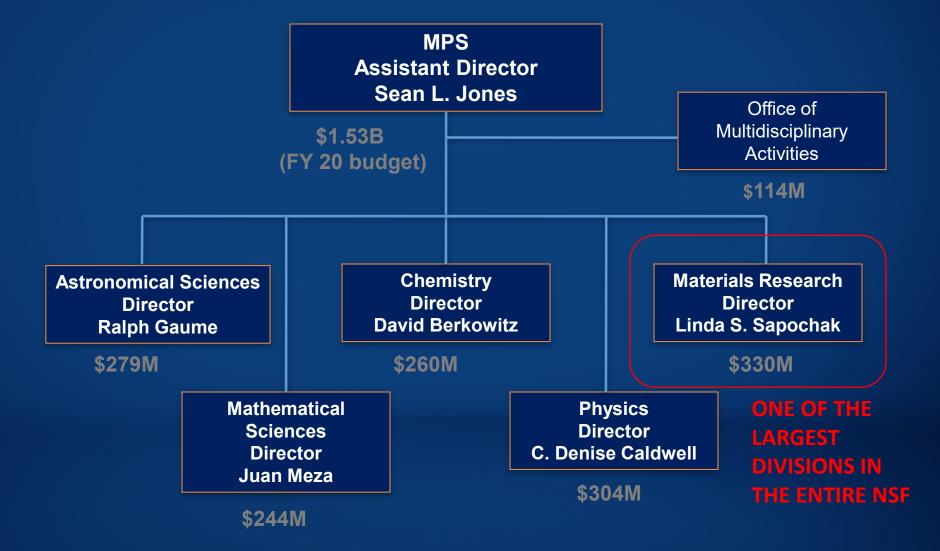






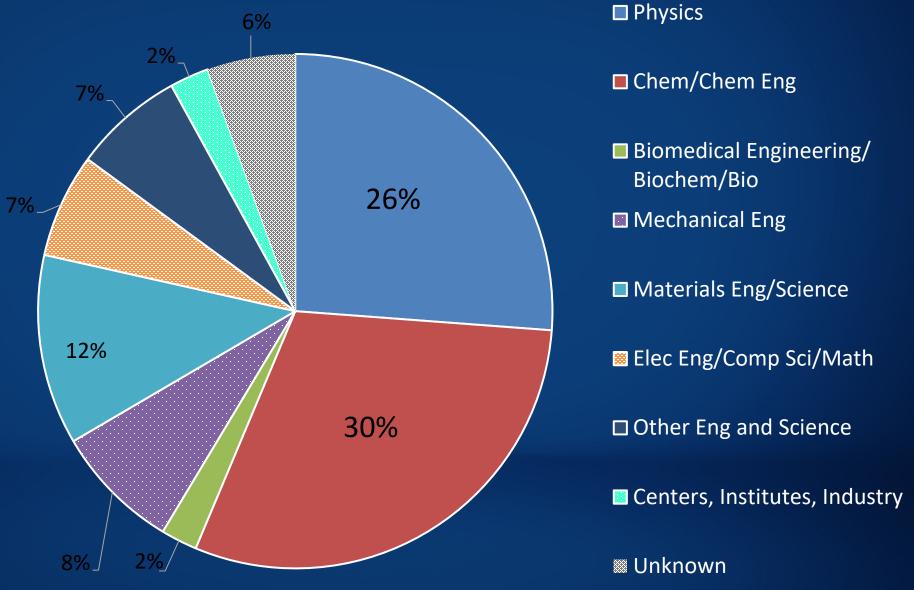
## Mathematical and Physical Sciences







## DMR TMRP PI Departmental Affiliations







#### **DIVISION OF MATERIALS RESEARCH (DMR)**

# Instrumentation Centers & Teams Program

Topical Materials
Research Programs
(TMRPs)

Biomaterials Ceramics Electronic & Photonic Materials Metals and Metallic Nanostructures Polymers

Condensed Matter & Materials Theory Condensed Matter Physics Solid State and Materials Chemistry

Cross-Cutting
Activities

Diversity & Inclusion
Workshops/Conferences/Square Tables/Studies
Education
International

Materials Research Science & Engineering

Centers (MRSEC)

Centers (STCs)

Science &

Technology

19

SemiSynBio
Al planning grant
Future Manufacturing
FDA Scholar
ERC
EFRI

Partnerships in
Research &
Education in
Materials (PREM) 13

Designing Materials to Revolutionize & Engineer our Future (DMREF)

Q-AMASE-i

National High Magnetic Field Laboratory (NHMFL)

**National Facilities &** 

Center for High-Energy X-ray Science (CHEXS)

+++++++++++++++++++++++++++++++++++

Center for High Resolution Neutron Scattering (CHRNS)

National Nanotechnology
Coordination Network (NNCI)

ChemMatCARS

DMR Mid Scale Projects 1

NSF MidScale Instrumentation 1 1

NSF MidScale Instrumentation 2

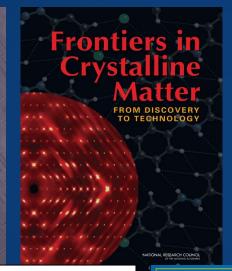
Materials Innovation Platforms (MIP) 4



### Important Reports for Materials Research

2006

2009



2020 – MRS Bulletin November Frontiers in hybrid and interfacial materials chemistry research

2021 – Engineering Biology and Materials Sciences Roadmap (EBRC)

2017

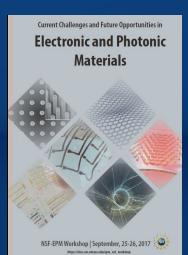
2019

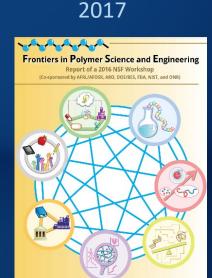


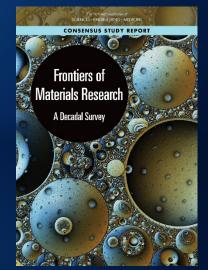
CREATING THE NEXT-OBJERATION
MATERIALS GENOME INITIATIVE
WORKFORCE

2019

2017











Closing the Loop
Report of the MPSAC Subcommittee on
Materials Instrumentation
Mathematical and Physical Sciences Advisory Committee
July 2014

2014

MRSEC Director's Meeting, January 28-29, 2021

2011

## MRSEC - MISSION AND IMPACT

- 1. MAJOR IMPACT ON UNIVERSITY- COULD INCREASE TO REGIONAL, NATIONAL, INTERNATIONAL IMPACT? How is MRSEC distinguished from other center/institute/other programs?
- 2. <u>DIVERSITY & INCLUSION</u> JOIN FORCES ACROSS MRSECS, WHAT ABOUT ACROSS MPS-SUPPORTED CENTERS, INSTITUTES, PLATFORMS?
- 3. WHAT IS <u>SUCCESS</u> AFTER 6 YEARS? WHAT IS SUCCESS AFTER DECADES?

**THANK YOU!** 

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