

**NSF Funding Possibilities:
Presentation to IUCF
Neutron Detector Workshop**

30 May 2003

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**Director, National Facilities
Division of Materials Research
National Science Foundation**

Organizational Structures and FY2002 Budgets

- **National Science Foundation (\$4.8B)
(Budget request for FY 2004 = \$5.5 B)**
- **Mathematical and Physical Sciences
Directorate (\$920 M)**
- **Division of Materials Research (\$220 M)**

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Executive Officer

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Computer Specialist

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Coordinating Program Director

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David L. Nelson

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E. Diane Ruffner

Senior Program Assistant

Deborah E. Dory

Bernadine Trumble

Program Assistant

S. Renee Ivey

*volunteer

Part-time staff = blue font

Support for Instrument and Facility Development

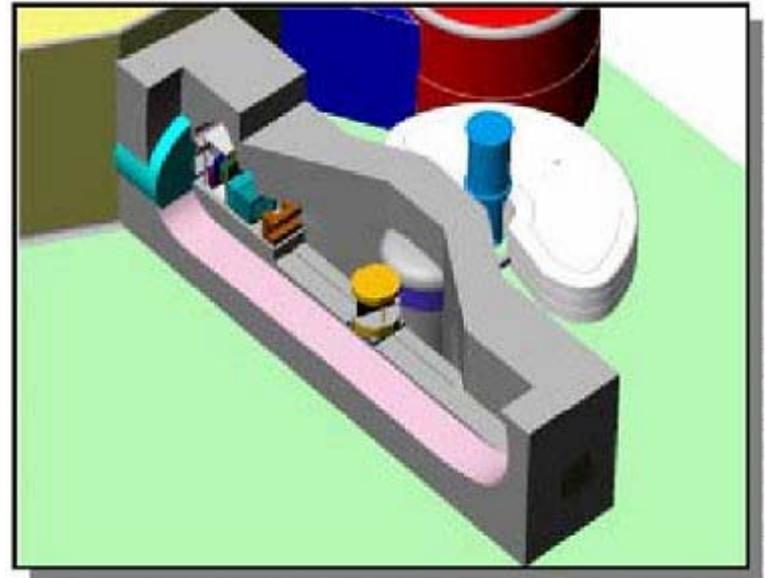
- **Individual Investigator Awards (IIAs):**
 - ~ \$100K/yr
 - Small Grants for Exploratory Research (SGERs)
 - Proposals for conferences, symposia, workshops
- **Instrumentation for Materials Research (IMR) & Major Research Instrumentation (MRI):**
 - ~ \$150K/yr – \$900K/yr
- **Science and Technology Centers (STCs):**
 - ~ \$2M/yr – \$5M/yr
- **Major Research Equipment and Facilities Construction (MREFC):** > \$100M

Small Grants for Exploratory Research (SGERs)

- “Proposals for small-scale, exploratory, high-risk research ...”
- *Must* be identified as SGER on NSF cover page.
- Contact Program Officer *before* submitting proposal.
- Internal NSF merit review only, including concurrence of Division Director.
- Maximum SGER award: \$100K for 1 year.
- SGERs collectively total <5% of Program budget.

Instrumentation for Materials Research (IMR) and Major Research Instrumentation (MRI)

- **IMR**
 - DMR program
 - \$6.0 M in FY02
 - Typical IMR award \$140 K
- **MRI**
 - www.nsf.gov/od/oia/programs/mri/start.htm
 - NSF-wide, \$79M in FY02
 - NSF share < \$2M
 - 30% cost-sharing for Ph.D. institutions
 - \$10.2 M for DMR in FY 02
 - Most MRI awards range from \$80 K to \$700 K



Science and Technology Centers (STCs)

- **Program information:**
 - www.nsf.gov/od/oia/programs/stc/start.htm
 - Currently NSF supports 11 STCs
- **Program solicitation:**
 - “Science and Technology Centers: Integrative Partnerships”
 - www.nsf.gov/pubs/2003/nsf03550/nsf03550.htm
 - Pre-proposals due 3 June 2003.
 - Full proposals (invitation only) due 10 February 2004.

MREFC

(\$202 M FY 04 Request)

- NSF-wide; see NSB 02-190:
 - www.nsf.gov/nsb/documents/2003/start.htm
- Projects > 10% of Directorate budget (about \$100 M for MPS)
- Extensive reviews
- NSB approval required



- **MPS MREFC Projects**
 - National High Magnetic Field Laboratory (NHMFL)
 - Green Bank Telescope (GBT)
 - Gemini Telescopes
 - Laser Interferometer Gravitational Wave Observatory (LIGO)
 - Atacama Large Millimeter Array (ALMA)
 - IceCube

Need for Mid-Scale Instrumentation

- Broad needs (NSB 02-190: www.nsf.gov/nsb/documents/2003/start.htm, chapter 4)
- For FY 2004, new program under development



In Preparation: BLIMP

- **Beam Line Instrumentation & Mid-Scale Projects**
 - Includes detector development
- **Program Solicitation in preparation for FY04**
- **Anticipated budgets: \$2 M in FY04; hope to grow over 5 years to \$25 – 30 M in steady state**
- **2 types of proposals: Conceptual & Engineering Design (CED) and Construction (CNST)**
- **Deadlines: Early fall each year**
- **Types of review: Probably mail review and “reverse site visit”**

Prospective BLIMP Projects?

- **Low-energy neutron scattering facilities**
- **Series-connected hybrid magnets**
- **1.2 GHz NMR magnets**
- **Neutron spectrometers**
- **Energy Recovery Linacs (ERLs)**
- **X-ray Free Electron Laser (XFEL) design studies**
- **Sample environments at the Spallation Neutron Source (SNS)**
- **Beamline instruments at neutron and synchrotron facilities**
- **TeraHertz (THz) facilities**

If you are thinking of submitting a proposal ...

- **Note:** “NSF does not normally support research or education activities by scientists, engineers, or educators employed by Federal agencies or ... FFRDCs.”
- Awards can extend up to 5 years.
- Contact your NSF Program Officer *before* submitting your proposal
 - www.nsf.gov/staff/orgpage.cfm?key=33

Sources of Additional Information

- ***Grant Proposal Guide:***

www.nsf.gov/pubs/2003/nsf03041/nsf03_041.pdf

- **Lists of award information:**

www.nsf.gov/home/grants/grants_awards.htm

- **Abstracts**

- For DMR's National Facilities (NAFs) and Centers:
available through URL listed above or other Web sites

- **Links to Web sites:**

www.nsf.gov/mps/divisions/dmr/start.htm