



NATIONAL SCIENCE FOUNDATION
4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230

OFFICE OF THE
ASSISTANT DIRECTOR
FOR MATHEMATICAL AND
PHYSICAL SCIENCES

December 3, 2004

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Dear Dr. xxx,

Thank you for agreeing to serve on the FY 2005 Committee of Visitors (COV) for the Division of Materials Research (DMR). The COV Review will take place at the NSF in Arlington, Virginia, on Wednesday through Friday, February 16-18, 2005; we expect to begin early Wednesday morning and conclude by mid-afternoon Friday. The COV is an *ad hoc* subcommittee of the Mathematical and Physical Sciences Advisory Committee (MPSAC). Your appointment to the COV commences February 1, 2005 and ends with the presentation of the COV report to the MPSAC on April 7, 2005.

By NSF policy, each program that awards grants and cooperative agreements must be reviewed at three-year intervals by a COV comprised of qualified external experts. The COV is charged to address and prepare a report on:

- The integrity and efficacy of processes used to solicit, review, recommend, and document proposal actions;
- The quality and significance of the results of the Division's programmatic investments;
- The relationship between award decisions, program goals, and Foundation-wide programs and strategic goals;
- The Division's balance, priorities, and future directions;
- The Division's response to the prior COV report of 2002; and
- Any other issues that the COV feels are relevant to the review.

The COV reports are used by management to improve programs. A more complete description of the charge to the COV is provided as an attachment. The COV report is made available to the public to ensure openness to the research and education community served by the Foundation.

Decisions to award or decline proposals are ultimately based on the informed judgment of NSF staff, using evaluations by qualified reviewers who reflect the breadth and diversity of the proposed activities and the community. Systematic examination by the COV of a wide range of funding decisions provides an independent mechanism for monitoring and evaluating the overall quality of the Division's decisions on proposals, program management and processes, and results.

The review will assess operations of individual programs in DMR as well as the Division as a whole for three fiscal years: FY 2002, FY 2003, and FY 2004. The DMR programs under review include:

- Ceramics;
- Condensed Matter Physics;

- Electronic Materials;
- Instrumentation Programs;
- Materials Research Science and Engineering Centers;
- Materials Theory;
- Metals;
- National Facilities;
- Office of Special Programs;
- Polymers; and
- Solid-State Chemistry.

The general outline of the meeting will be an introductory session in which the Division Director, Thomas Weber, will present an overview of the Division's activities and plans, a brief overview of each program, and a review of statistical information and procedures. Following this session, the COV will break into three sub-panels to examine program documentation and results and to prepare sub-panel review reports. This is expected to require the rest of Wednesday and all day Thursday of the meeting time. On Friday, the COV chair and sub-panel chairs will review the Division as a whole and prepare a Division-level report, based on the sub-panel reports and other material as appropriate. All COV members are invited to stay on Friday if they so desire, although only the chairs are required to stay for the Friday session.

Drafts of the sub-panel reports and Division-level report will be completed during the COV meeting. The Chair of the COV will finalize and submit the full report by February 8 to allow time for comment and distribution of the report to the full MPSAC prior to their meeting on April 7-8, 2005.

Thomas Weber (703 292-4915 tweber@nsf.gov) will send you an agenda and background information to assist you in conducting this review 2 weeks prior to the meeting. Please feel free to contact Tom or Lance Haworth (703 292-4916, lhaworth@nsf.gov) if you have questions about the review.

The DMR Division Secretary, Ethel Watson (703 292-4919, ewatson@nsf.gov) will contact you shortly with information about making travel and hotel arrangements.

Thank you again for your willingness to participate in this important activity.

Sincerely,

Michael S. Turner
Assistant Director

cc: W. Carl Lineberger, Chair, MPSAC
Attachment

Attachment

The COV Core Questions and Reporting Template will be applied to the program portfolio and will address the proposal review process used by the program, program management, and the results of NSF investments. Specific questions to be addressed and reported on are:

- a) The integrity and efficiency of processes used to solicit, review, recommend and document proposal actions, including such factors as:
 - (1) Selection of an adequate number of highly qualified reviewers who are free from bias and/or conflicts of interest;
 - (2) Appropriate use of NSF merit review criteria;
 - (3) Documentation related to program officer decisions regarding awards and declines, and the scope, duration and size of projects;
 - (4) Balance of awards in terms of subject matter; emerging opportunities; high risk and innovation; size versus number of awards; new investigators; diversity of underrepresented groups; geographic distribution of principal investigators; and
 - (5) Overall technical management of the program.
- b) The relationships between award decisions, program goals, and Foundation-wide programs and goals;
- c) Results, in the forms of outputs and outcomes of NSF investments for the relevant fiscal years, as they relate to the Foundation's current strategic goals and annual performance goals.
- d) The significant impacts and advances that have developed since the previous COV review and are demonstrably linked to NSF investments, regardless of when these investments were made. Examples might include new products or processes, or new fields of research whose creation can be traced to the outputs and outcomes of NSF-supported projects over an extended period of time.
- e) Response of the program(s) under review to recommendations of the previous COV review.