# Our Shared Responsibility for the Future and Health of Materials Research (Part III)

## *What is MRS doing?*

The first letter of this three-part series, published in the January 2006 issue of *MRS Bulletin*, highlighted the fact that there was some glimmer of hope for U.S. funding of physical science research as a modest increase of the budget for the National Science Foundation (NSF) was anticipated for 2006, after it has been cut the prior year. The letter also mentioned efforts by U.S. business leaders and organizations such as the Alliance for Science & Technology Research in America (ASTRA) and the Semiconductor Industry Association (SIA) toward increasing financial support for research in the physical sciences. Since February of this year, several federal initiatives, the most noteworthy of which is the American Competitiveness Initiative (ACI), and congressional bills have been introduced in support of funding the physical sciences in terms of education and research and development and in terms of building the work force. For more details on these activities in Washington, D.C., see SCIENCE POLICY in this issue of *MRS Bulletin*.

This third and final letter in this series discusses some related implications of the science budget and describes future plans of the Materials Research Society as it carries out its mission for the advancement and dissemination of information on interdisciplinary materials research.

While the case for materials research is relatively easy to make, there are additional issues that have to be considered before we understand how materials research will benefit from expected funding at the federal level in the United States. Funding agencies and federal departments will set priorities in order to determine where the money will be spent. Within the field of materials, priorities will also have to be established, and the setting of priorities occurs in many ways. One important influence is the National Research Council (NRC) decadal study on condensed-matter and materials physics, *CMMP2010*. This study, which follows an earlier decadal study done in 1999, will be conducted by a committee of 19 members. The committee is co-chaired by Mildred Dresselhaus of the Massachusetts Institute of Technology and William Spencer, Chair Emeritus of Sematech. One of the main goals of this study is to identify areas of future impact of CMMP on other fields as well as on national societal needs. It will be a forward-looking study that communicates the excitement of the field and future scientific challenges. It will cover diverse areas of materials, so broad input from the scientific community is being sought through focus groups and Town Hall meetings. Town Hall meetings were held at the American Physical Society and the American Chemical Society, and one will be held at the 2006 MRS Spring Meeting, April 17–21. This study will be important as the U.S. Office of Science and Technology Policy, the Office of Management and Budget, and various agencies such as NSF and departments such as the Department of Energy and the Department of Defense highly value NRC reports, as well as other forms of input. Within the federal agencies, additional constraints are considered. NSF, for example, will establish priorities between diverse portfolios, from the new Cyber infrastructure Directorate, to support for high-energy physics, to education, to new facilities, to materials research. The Division of Materials Research plans to have a new program on biomaterials. Furthermore, within NSF the "proposal pressure" varies from one program to another, and this too will influence the relative investments in various areas of materials research.

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At the international level, breakthroughs in materials science are likely to occur around the world due to R&D investments, as discussed in the second letter of this series that was published in the February 2006 issue of *MRS Bulletin*. The main challenges for MRS are to develop and encourage effective mechanisms that advance the field and contribute to the health and quality of human life. Such mechanisms could involve joint topical meetings, sister student societies, joint funding opportunities, and student chapter challenges. To this end, MRS is exploring the logistics of holding a meeting in Asia in order to draw significant international participation from that region. The Society has discussed the possibility of developing a "Global Materials Road Map" that would guide our strategic plans and help us to decide how to work with other technical societies around the world. The future of the field will depend on the development of a coherent strategy on these issues. MRS is also exploring new and innovative ways to create print and electronic media of our journals as well as a new, innovative way of capturing the meetings content. This is necessary as we make plans to serve a larger international technical community.

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2006 MRS President





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