

Superfund Basic Research Program Summary of Staff's Response to the SBRP External Advisory Group's Report.

In 2003, the National Institute of Environmental Health Sciences established an ad hoc External Advisory Group (EAG) as a working group of the National Advisory Environmental Health Sciences Council (NAEHS) to examine the performance of the Superfund Basic Research Program (SBRP). The challenge presented to the working group was to identify strengths and areas of productivity of the Program, to determine the adequacy of the Program's efforts to communicate the science emanating from the Program, as well as to provide insights to future directions. The EAG concluded its activities with the submission of its report to the NAEHS Council in September 2003. This report is posted on the SBRP web site along with other support information: <http://www-apps.niehs.nih.gov/sbrp/eag/>. In general, the EAG was supportive of the research being conducted by the SBRP and the manner in which the Program is being managed. It found that "the SBRP is an active, vibrant and significant program." Furthermore it determined that the Program "remains highly relevant to the EPA Superfund goals," noting that the SBRP "has been successful at enhancing investigations and remediation work at many hazardous waste sites across the country."

In response to the working group's final report, SBRP staff conducted an in-depth analysis of the report and identified specific recommendations that could be incorporated into the Program. A complete listing of EAG recommendations and associated actions taken by the SBRP can be found on the above-sited web page.

Without going into detail, it is informative to recap some of the more significant outcomes of this activity, and recognize how the SBRP staff has utilized the recommendations to the Program's benefit. For example, the EAG strongly supported the multidisciplinary nature of the SBRP and found that this approach "was necessary to address the range of environmental problems that exist at hazardous waste sites." They found that the "multidisciplinary structure of the Program places it in a strong position to address complex public health issues that cannot be adequately resolved through the contributions of a single scientific discipline." It recommended that the SBRP continue to integrate the science beyond the multidisciplinary structure currently in place. As a result of this strong endorsement for not only continuing multidisciplinary research but pushing for interdisciplinary research as well, the staff developed and released the new SBRP Request for Application (RFA), which includes a strong emphasis on integrating research across the traditional scientific disciplines. The actual RFA can be viewed at <http://www-apps.niehs.nih.gov/sbrp/rfa/>.

Another general area of interest to the working group was that of technology transfer. The EAG recognized the importance of "effective transfer of both basic and applied science and technology across several research and institutional sectors." While it credited the individual grantees with an excellent track record in

contributing over 6500 publications to the scientific literature, the working group reinforced the SBRP staff's philosophy that research results must be made readily accessible to program stakeholders, and technology transfer should be pursued on a formal and active basis. Based on this endorsement, the SBRP staff incorporated a requirement in the new RFA for a Research Translation Core. Within this core it is anticipated that the grantee will more actively communicate important research outcomes to appropriate audiences and seek opportunities for moving research findings into application. The working group also recommended that the staff refine its expectations for the outreach component of the Program. In response, in the new RFA, the outreach core has been restructured with a more target definition that directs applicants to "extend support to communities..."

The EAG also examined the SBRP management and provided feedback specifically on utilizing an expanded complement of funding mechanisms; the development of information transfer tools; and the use of metrics. The working group was strongly supportive of using multiple funding mechanisms. While staff concurs with this recommendation, staff gives priority to the large multi-project interdisciplinary grants and the Small Business Innovative Research grants. Staff will continually seek opportunities to use other mechanisms, as funds are available. While the working group was appreciative of the programmatic tools and information transfer mechanisms that SBRP staff has implemented, it made some specific recommendations to the redesign of the SBRP web page. Currently, the Program's web page is undergoing a scheduled upgrade, and the working group's suggestions are being incorporated into the new design. The EAG was also interested in the potential use of metrics for program assessment. It recognized that the Program was successful in capturing total number of publications, patents and training figures; however, less able to account for qualitative information (e.g., publication impact or graduate students successes). SBRP staff appreciates the importance of this area, and is planning to conduct an analysis of available program evaluation tools to determine what data can be reasonably collected and rigorously analyzed to serve as benchmarks of the Program's accomplishments.

The final area where the EAG provided comment was on future directions for the SBRP. The working group cited areas of new research and areas where increased emphasis should be placed. Many of these recommendations demonstrated the group's interest in a holistic approach to addressing environmental health questions, such as a system-level approach to research or examination of the connectivity between human health and ecological conditions. A response to these recommendations is reflected in the new SBRP RFA where applicants are challenged to adopt a holistic approach in integrating different disciplines to address the complex, interdependent issues related to exposure to hazardous substances.