



## March 2007

Number 10

# NSF Town Hall

*National Meeting of the American Chemical Society in Chicago, IL*

We invite you to meet and speak with National Science Foundation (NSF) staff members at the NSF Town Hall to be held at the National Meeting of the American Chemical Society (ACS) in Chicago, Illinois, on Monday, March 26, 2007, 11:00 a.m. – 2:00 p.m., Chicago Convention Center, McCormick Place, Room S100BC. The following NSF staff members plan to be available to meet with you informally: Luis Echegoyen, Janice Hicks, Ron Christensen, George Kenyon, Eileen Lewis (Division of Undergraduate Education), Charles Pibel, Joe Templeton, Margaret Cavanaugh, and Chantel Sabus.

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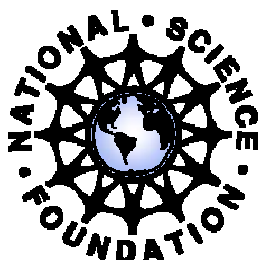
## Chemical Research Instrumentation (CRIF)

Environmental  
Molecular Science

## Visualization Challenge

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## Reviewers Wanted

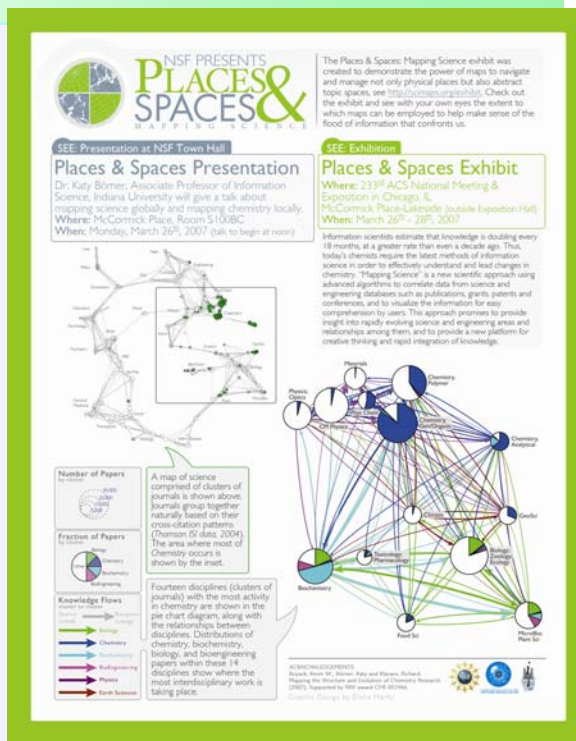


4201 Wilson Blvd.  
Room 1055

Arlington, VA 22230

<http://www.nsf.gov/chem>

As part of the NSF Town Hall, Dr. Katy Börner, an Associate Professor of Information Science from Indiana University, will talk about mapping science globally and mapping chemistry locally. The presentation is scheduled to begin at noon. Information scientists estimate that knowledge is doubling every 18 months, at a greater rate than even a decade ago. Thus, today's chemists require the latest methods of information science in order to effectively understand and lead changes in chemistry. "Mapping science" is a new scientific approach using advanced algorithms to correlate data from science and engineering databases such as publications, grants, patents and conferences, and to visualize the information for easy comprehension by users. This approach promises to provide insight into rapidly evolving science and engineering areas and relationships among them, and to provide a new platform for creative thinking and rapid integration of knowledge.



There will also be an interactive display entitled "Places and Spaces: Mapping Science Exhibit" available for viewing March 26 - 28, 2007, at the Chicago Convention Center, McCormick Place-Lakeside (outside the Exposition Hall). The exhibit has been shown at the New York Public Library and at the New York Hall of Science. More information regarding the exhibit is available on page 28 of the March 5, 2007, issue of Chemical and Engineering News (C&EN) and at <http://scimaps.org/>.

The Town Hall is an excellent opportunity to share information and perspectives on developments in the chemistry community and at NSF. Refreshments will be available.

## Committee of Visitors

The triannual Committee of Visitors (COV) meeting for the Division of Chemistry was held at the NSF in February, 2007. The Chair for this meeting was Professor Geraldine Richmond of the University of Oregon. Core questions addressed by the COV can be viewed at [http://www.nsf.gov/events/event\\_summ.jsp?cntn\\_id=108234&org=CHE](http://www.nsf.gov/events/event_summ.jsp?cntn_id=108234&org=CHE). The Division welcomes additional feedback from its community as part of this external evaluation. Please send comments to Geri Richmond at [richmond@uoregon.edu](mailto:richmond@uoregon.edu). Geri will formally present the findings to the Mathematical and Physical Sciences Directorate Advisory Committee on April 6, 2007. We thank all members of the Chemistry COV for their hard work and participation.

## Significant Change to Chemistry's Unsolicited Proposal Submission Window

In order to ensure the timely handling of proposals and fairness in comparing competing requests for funding, the Directorate for Mathematical and Physical Sciences (MPS) Division of Chemistry (Division) has changed its proposal submission window for unsolicited proposals from the current single long window (second Monday in July until the second Friday in January) *to two shorter windows; one between July 1 and July 31 and another between November 1 and November 30*. The window changes are effective immediately. For purposes of NSF, the end date of each submission window converts to, and follows the same policies as, a deadline date.

This action follows a recommendation from the 2004 Committee of Visitors Report, <http://www.nsf.gov/od/oia/activities/cov/mps/2004/CHEcov.pdf>, and consultation throughout the NSF and the community. The new windows will provide increased opportunities of co-review and co-funding of awards with other divisions within the NSF. Principal Investigators (PIs) may submit their proposal in either window. However, PIs should consider submitting their proposal in July if the proposal is bio-oriented or in November if it is materials research-oriented in order to enhance co-funding opportunities.

If you have questions regarding the new proposal submission windows, please email your questions to [proposalsubmissionwindow@nsf.gov](mailto:proposalsubmissionwindow@nsf.gov). The entire Dear Colleague Letter regarding the submission window change is available for viewing at <http://www.nsf.gov/pubs/2007/nsf07139/nsf07139.jsp>.



## Discovery Corps Fellowships and Benchmarking Chemistry Symposia at the National Meeting of the American Chemical Society in Chicago

The Discovery Corps Fellowship (DCF) Program Principal Investigators will speak at a symposium Tuesday afternoon and Wednesday morning, McCormick Place North, Room N229, Level 2. DCF is an extended pilot program seeking new postdoctoral and professional development models that combine research with service-oriented projects. Discovery Corps Fellows develop integrated plans that incorporate an ambitious research project with other activities that address areas of national need (including enhanced research capacity and infrastructure, workforce development and job creation, and innovative linkages between chemistry and other fields).

A National Academy of Science report entitled "Benchmarking the Research Competitiveness of the U.S. in Chemistry, Chemical Engineering and Mechanical Engineering" will be presented in a Tuesday afternoon symposium in McCormick Place South, Room S100A, Level 1. This study was led by Charles Casey, University of Wisconsin, and was supported by the National Science Foundation. Quantitative and qualitative measures of the status of each discipline will be presented. Each benchmarking exercise will address the following: What is the position of US research in the field relative to that in other regions or countries? What are the key factors influencing relative US performance in the field (i.e., human resources, equipment, infrastructure, etc.)? On the basis of current trends in the United States and worldwide, extrapolate to the US relative position in the near and longer-term future.

# Personnel Changes and Availability of Positions within the Division of Chemistry

The Division welcomes Jennifer Grasswick, C. Renee Wilkerson, and Khaleelah Po Rome as Science Assistants. The Science Assistants provide technical support for the Division Director, Executive Officer, and Program Officers. Jennifer is a BS graduate of St. Cloud State University, St. Cloud, MN, and is working for the Inorganic, Bioinorganic, and Organometallic Chemistry and Organic and Macromolecular Chemistry programs. Renee is a MS graduate from the Katritzky Group at the University of Florida and is working for the Physical Chemistry and Analytical and Surface Chemistry programs. Khaleelah is a BS graduate of Hampton University, Hampton, VA, and is working for the Integrative Chemistry Activities group.

The Division welcomes the temporary hire of Robert Cruz as a Program Assistant. He comes to our division from the NSF Division of Mathematical Sciences. We also welcome Debbie Jones and Melyni McGriff-Williams. Prior to being hired as a Financial Operations Specialist for the division, Debbie worked for the NSF Division of Information and Intelligent Systems. Melyni is the division's new Secretary and previously worked in the NSF Division of Electrical Communications and Cyber Systems.

We thank Philip Shevlin for his service as a Chemistry rotator in the Chemical Bonding Center program and wish him the best during his retirement. Science Assistant Chantel Sabus will begin a temporary appointment with the NSF Office of Budget, Finance and Award Management. The entire Chemistry Division thanks Chantel for her valuable assistance and contributions throughout the last two years. A complete listing of current staff may be found at [http://www.nsf.gov/staff/staff\\_list.jsp?org=CHE](http://www.nsf.gov/staff/staff_list.jsp?org=CHE).

## NSF Workshop Reports

Neuroscience Steering Group Report: Brain Science as a Mutual Opportunity for the Physical and Mathematical Sciences, Computer Science, and Engineering, <http://www.nsf.gov/od/oia/activities/neuroscience/200608brainscience.pdf>.

The Division of Chemistry asks you to consider serving as a program officer should your circumstances permit it, and to help us identify other individuals who might serve in this capacity. Rotators (program officers) are responsible for planning, coordinating, and managing programs that support research, education, and human resource development in the chemical sciences. Applicants should have a Ph.D. or equivalent training in the chemical sciences, extensive knowledge of one or more chemistry subfields, and at least six years of successful independent research activity. Applicants should be familiar with the chemistry community and have administrative experience. Other important attributes are strong verbal and written communication skills, organizational skills, facility in using technology tools, and the ability to work effectively on a team. If you are interested in serving as a rotator, please see <http://www.nsf.gov/pubs/2006/nsf06056/nsf06056.jsp>

The majority of our 23 program officers are rotators, and they bring fresh insights to our work at NSF. Rotators can maintain their research programs while working at the Foundation. NSF provides time, travel resources, and use of technology to enable rotators to stay in touch with co-workers at their home institutions. Rotator positions are typically held for one or two years, but other arrangements are possible. Rotators not only serve the community and help to shape chemistry, but they also have excellent opportunities for professional development and establishment of new research directions upon returning to their laboratories. Applicants interested in rotational positions should send an email describing their interest and CV to our Division Director, Luis Echegoyen, at [echegoyen@nsf.gov](mailto:echegoyen@nsf.gov). NSF is an equal opportunity employer committed to employing a highly qualified staff that reflects the diversity of our nation.

## Significant Change to the Chemical Research Instrumentation & Facilities (CRIF) – Multi-user Program Solicitation

A new program solicitation for the CRIF-MU program has been posted (see <http://www.nsf.gov/pubs/2007/nsf07552/nsf07552.htm>.) A significant change is the requirement for a departmental plan for broadening participation. Increasing the participation of diverse U. S. citizens including women and underrepresented minorities by creating opportunities and enabling their contributions is essential to the health and vitality of science and engineering. Underrepresented minorities include persons with disabilities and people whose representation in science and engineering is less than their representation in the population: African-Americans, Hispanics, and Native Americans, including American Indians, Alaskan Natives and Pacific Islanders. NSF is committed to this principle of broadening participation, and deems it central to the activities that it considers and supports. In accordance with this, the Division of Chemistry is incorporating this principle into its department-oriented solicitations by requiring a departmental plan for broadening participation as supplemental information.



## Update on Environmental Molecular Science Institutes (EMSI)

During the past nine years the NSF Divisions of Chemistry, Earth Sciences and Atmospheric Sciences, Geosciences Directorate, have supported a cross-disciplinary program called *Environmental Molecular Science Institutes* (EMSI). Many researchers have submitted proposals to the EMSI competitions and the resulting research has significantly improved our understanding of the molecular processes underlying environmental transformations. The solicitation for proposals under which the EMSI competition has recently been run (04-509) has expired. NSF and the Department of Energy (DOE) staff have discussed how this program might evolve in the coming years, guided by community input. At the present time, they have decided not to announce the targeted EMSI funding opportunity again.

All Chemistry programs encourage proposals for research in environmental molecular science in FY 2007 and future years. Principal investigators are strongly encouraged to contact Program Directors to discuss plans for future submissions. The entire Dear Colleague Letter regarding the EMSI update is available for viewing at <http://www.nsf.gov/pubs/2007/nsf07019/nsf07019.jsp>.

## Small Grants for Exploratory Research

The Division would like to remind Principal Investigators of the Small Grants for Exploratory Research opportunity as described in the Grant Proposal Guide ([http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_k=ey=gpg](http://www.nsf.gov/publications/pub_summ.jsp?ods_k=ey=gpg) )

Proposals for exploratory and high risk research in the fields of science, engineering and education normally supported by NSF may be submitted to individual programs at any time. Such research is characterized as preliminary work on untested and novel ideas; ventures into emerging research ideas; the application of new expertise or new approaches to "established" research topics; having extreme urgency with regard to availability of or access to data, facilities, or specialized equipment, including quick-response research on natural disasters and similar unanticipated events; and efforts of similar character likely to catalyze rapid and innovative advances. A list of SGER examples funded in CHE can be viewed at [http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=501093&org=CHE&from=home](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501093&org=CHE&from=home).

Investigators must contact the NSF program officer(s) most germane to the proposal topic before submitting an SGER proposal.

## 2007 Science and Engineering Visualization Challenge now Accepting Entries

If you understand the power of visual communication to explain, explore, and extend our knowledge of the world around us, then you are invited to enter the 2007 Science and Engineering Visualization Challenge, co-sponsored by the National Science Foundation and *Science*, and published by the American Association for the Advancement of Science (AAAS). Entry deadline is May 31, 2007.

Awards are expected to be made in the following categories: illustration, photography, informational graphics, interactive media, and non-interactive media. Winning entries will be published in a special section of the September 28, 2007, issue of the journal *Science* and *Science Online* and on NSF's website. One winners' entry will appear on the front cover of *Science*. For more information, see:

[http://www.nsf.gov/news/special\\_reports/scivis/](http://www.nsf.gov/news/special_reports/scivis/)

## Request for Qualified Reviewers

The Division of Chemistry seeks to enhance its pool of qualified reviewers of proposals. We invite researchers in the chemical sciences who have not previously reviewed for the Division of Chemistry but are interested in providing this service to contact us by visiting our website at

[http://www.nsf.gov/mps/che/reviewer/reviewer\\_info.jsp](http://www.nsf.gov/mps/che/reviewer/reviewer_info.jsp) and completing the online registration form. Be sure to indicate that you are "willing to travel," if you are interested in serving as a panelist. We welcome qualified reviewers from academic, industrial, and government employment, as well as from other countries. It is important to recognize that the National Science Foundation reserves the right to choose reviewers. While we are unable to assure individuals that they will be asked to review proposals, we do attempt to call upon as many qualified reviewers as possible, and we try to limit the number of requests that we make to any single individual, recognizing the many demands on our reviewers' time.

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