

Office of Science
Notice DE-FG01-05ER05-30

Basic Research for Chemical Imaging

Department of Energy

Office of Science Financial Assistance Program Notice
DE-FG01-05ER05-30: Basic Research for Chemical Imaging

AGENCY: U.S. Department of Energy

ACTION: Notice inviting grant applications.

SUMMARY: The Division of Chemical Sciences, Geosciences and Biosciences, Office of Basic Energy Sciences (BES) of the Office of Science (SC), U.S. Department of Energy (DOE), in keeping with its mission to assist in strengthening the Nation's scientific research enterprise through the support of basic science, announces its interest in receiving grant applications for projects on basic research needed to advance chemical imaging. We are interested in forefront advances of imaging techniques with spatial resolution on the molecular scale relevant to the basic science of chemical and physical transformations. Of particular interest are applications that combine molecular-scale spatial resolution and ultrafast temporal resolution to explore energy flow, molecular dynamics, breakage or formation of chemical bonds, or conformational changes in nanoscale systems. Proposed research must advance the scientific objectives within one of the nine core research areas in the Chemical Sciences, Geosciences and Biosciences Division: Atomic, Molecular and Optical Sciences; Chemical Physics; Photochemistry and Radiation Research; Catalysis and Chemical Transformations; Separations and Analysis; Heavy Element Chemistry; Chemical Energy and Chemical Engineering; Geosciences Research; and Energy Biosciences Research. More detailed descriptions of these core research areas can be found at <http://www.science.doe.gov/bes/brochures/CRA.html>. The following areas of research are specifically excluded from consideration: biomedical imaging, crystallography, imaging of structures significantly larger than the molecular scale, combustion diagnostics, and sensor technology. Also excluded from consideration are applications directed solely at the development of techniques or instrumentation, without specific and clear applications to basic research in one of the core research areas of the Chemical Sciences, Geosciences and Biosciences Division.

DATES: Potential applicants are **required** to submit a brief preapplication. Preapplications referencing Program Notice DE-FG01-05ER05-30, must be received by DOE by 4:30 p.m., Eastern Time, **December 20, 2005**. Preapplications will be reviewed for conformance with the guidelines presented in this Notice and suitability in the technical areas specified in this Notice. A response to the preapplications encouraging or discouraging formal applications will be communicated to the applicants by January 5, 2006.

Only those preapplicants that receive notification from DOE encouraging a formal application may submit full proposals. **No other formal applications will be considered.** Formal applications in response to this Notice must be received by **March 15, 2006.**

ADDRESSES: Preapplications referencing Program Notice DE-FG01-05ER05-30 should be sent as PDF file attachments via e-mail to: **imaging@science.doe.gov** with "DE-FG01-05ER05-30" as the subject. No FAX or mail submission of preapplications will be accepted.

Formal Applications

Applications submitted to the Office of Science must be submitted electronically through Grants.Gov to be considered for award. The Funding Opportunity Number is: DE-FG01-05ER05-30 and the CFDA Number for the Office of Science is: 81.049. Instructions and forms are available on the [Grants.Gov](#) website. Please see the information below and also refer to the "Funding Opportunity Announcement", Part IV - Application and Submission Information; H. Other Submission and Registration Requirements for more specific guidance on "Where to Submit" and "Registration Requirements." If you experience problems when submitting your application to Grants.gov, please visit their customer support website: <http://www.grants.gov/CustomerSupport>; email: support@grants.gov; or call 1-800-518-4726.

Registration Requirements: There are several one-time actions you must complete in order to submit an application through Grants.gov (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the Central Contract Registry (CCR), register with the credential provider and register with [Grants.Gov](#)). See <http://www.grants.gov/GetStarted>. Use the Grants.gov Organization Registration Checklist to guide you through the process. Designating an E-Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in the CCR registration process. Applicants, who are not registered with CCR and Grants.gov, should allow at **least 14 days** to complete these requirements. It is suggested that the process be started as soon as possible.

VERY IMPORTANT - Download PureEdge Viewer: In order to download the application package, you will need to install PureEdge Viewer. This small, free program will allow you to access, complete, and submit applications electronically and securely. For a free version of the software, visit the following Web site: <http://www.grants.gov/DownloadViewer>.

FOR FURTHER INFORMATION CONTACT: William S. Millman., Office of Basic Energy Sciences, Chemical Sciences, Geosciences and Energy Biosciences, SC-22.1, telephone: (301) 903-5805, E-mail: william.millman@science.doe.gov or Michael P. Casassa, Office of Basic Energy Sciences, Chemical Sciences, Geosciences and Energy Biosciences, SC-22.1, telephone: (301)903-0448, E-mail: michael.casassa@science.doe.gov. The full text of Program Notice DE-FG01-05ER05-30 is available via the Internet using the following web site address: <http://www.science.doe.gov/grants/grants.html>.

SUPPLEMENTARY INFORMATION:

Program Funding

It is anticipated that up to \$2 million annually will be available for approximately 12 awards for this Notice. Initial awards will be in Fiscal Year 2006, and applications may request project support for up to three years. All awards are contingent on the availability of funds and programmatic needs.

Preapplication

The preapplication should consist of a description of the research proposed to be undertaken by the applicant including a clear explanation of its importance to the advancements in chemical imaging. The preapplication must include a cover sheet that identifies the institution, Principal Investigator name(s), address(es), telephone and fax number(s) and E-mail address(es), the title of the project, the identity of all project collaborators, and the yearly breakdown of the total budget request. A brief, one-page, vitae should be provided for each Principal Investigator. The preapplication should consist of a maximum of 3 pages of narrative (including text and figures) describing the research objectives, approaches to be taken, the institutional setting, and a description of any research partnership if appropriate.

Full Application

The Department of Energy will accept Full Applications by invitation only, based upon the evaluation of the preapplications. After receiving notification from DOE concerning successful preapplications, applicants may prepare formal applications. The Project Description must not exceed 20 pages, including tables and figures, but exclusive of attachments. The application must contain an abstract or project summary, short vitae, and letters of intent from collaborators if appropriate. DOE is under no obligation to pay for any costs associated with the preparation or submission of applications.

Merit Review

Applications will be subjected to scientific merit review (peer review) and will be evaluated against the following evaluation criteria listed below as codified at 10 CFR Part 605.10 (d):

1. Scientific and/or Technical Merit of the Project,
2. Appropriateness of the Proposed Method of Approach,
3. Competency of Applicant's Personnel and Adequacy of Proposed Resources,
4. Reasonableness and Appropriateness of the Proposed Budget, and
5. Basic research that is relevant to advancing the field of chemical imaging.

The external peer reviewers are selected with regard to both their scientific expertise and the absence of conflict-of-interest issues. Non-federal reviewers may be used, and submission of an application constitutes agreement that this is acceptable to the investigator(s) and the submitting institution.

Submission Information

Other information about the development and submission of applications, eligibility, limitations, evaluation, selection process, and other policies and procedures including detailed procedures for submitting applications from multi-institution partnerships may be found in 10 CFR Part 605, and in the Application Guide for the Office of Science Financial Assistance Program. Electronic access to the Guide and required forms is made available at:
<http://www.science.doe.gov/grants/grants.html>.

The Catalog of Federal Domestic Assistance number for this program is 81.049, and the solicitation control number is ERFAP 10 CFR Part 605.

Martin Rubinstein
Director
Science Programs Support Division
Office of Science

Posted on the Office of Science Grants and Contracts Web Site
September 26, 2005.