

**Program Announcement
To DOE National Laboratories
LAB 08-10**

***Research Opportunities at
Rare Isotope Beam Facilities***

SUMMARY: The Office of Nuclear Physics (NP), Office of Science (SC), U.S. Department of Energy (DOE), hereby announces its interest in receiving preproposals for developing outstanding scientific opportunities in nuclear structure and dynamics, nuclear astrophysics, and tests of fundamental interactions and symmetries at leading rare isotope beam (RIB) facilities around the world.

PREPROPOSAL DUE DATE: June 2, 2008, 8 PM Eastern Time (Required)

Preproposals are **REQUIRED** and must be received by June 2, 2008. Preproposals referencing Program Announcement LAB 08-10 should be submitted via E-mail to the following address: Chris.Izzo@science.doe.gov. Please include "Preproposal for LAB 08-10" in the subject line. Preproposals should include (1) the title of the proposal, (2) the name(s) and institution(s) of the principal investigator(s) and U.S and international collaborators, (3) a description of the scientific goals and their merit, (4) a description of the scope of work, (5) a description of technical scope or hardware deliverables, if appropriate, (6) the amount and duration of the requested funding, and (7) an expression of interest by the prospective host institution, with the name of a senior contact person. The preproposals should be no more than ten pages, excluding the expression of interest by the prospective host institution (item 7).

Specifically, each preproposal should address these program policy factors:

- The particular outstanding scientific opportunity afforded by U.S. investments at the host facility;
- The opportunity for a leading or significant role by U.S. participants; and
- The relevance or impact on the planned U.S. FRIB and associated program.

As part of the required elements above, the preproposal should address briefly the scientific and technical merit of the effort, the appropriateness of the proposed method or approach, the competency of the applicant's personnel, the adequacy of the proposed resources, the reasonableness and appropriateness of the proposed budget, and any other factors relevant to the proposed project.

Preproposals will be screened and proposers will be notified if a formal proposal is encouraged. Preproposals will be reviewed for conformity with the guidelines given in this Announcement, suitability in the technical areas and program policy factors specified in the Announcement. It is expected that a response to preproposals will be communicated, by reply email, by July 1, 2008.

Note that notification of a successful preproposal is not a guarantee that an award will be made in response to a formal proposal. **Formal proposals will be accepted only from proposers encouraged to submit a formal proposal.**

DATES: Full proposals submitted in response to this Announcement must be submitted using the **Office of Science Field Work Proposal Instructions** provided in the **Notice to Users** section on the ePMA home page: <http://epma.energy.gov>, and must be received no later than November 10, 2008, 8:00 p.m., Eastern Time to be accepted for merit review and to permit timely consideration for award. As stated above, **formal proposals will be accepted only from proposers encouraged to submit a formal proposal.**

Please see the "Addresses" section below for further instructions on the method of submission for the full proposal.

ADDRESSES: A complete formal FWP in a single Portable Document Format (PDF) document that has 'formatted text and graphics' (also known as "native" PDF) must be submitted using the Office of Science Field Work Proposal Instructions provided in the Notice to Users section on the ePMA home page: <http://epma.energy.gov>. (This submission process includes sending the FWP via CD using Federal Express).

Send CD via Federal Express to:

Ms. Christine Izzo
U.S. Department of Energy
Office of Nuclear Physics, SC-26.2/GTN
19901 Germantown Road
Germantown, MD 20874-1290
ATTN: Program Announcement LAB 08-10

To identify that the FWP is responding to this program announcement, when sending your CD please identify the Program Announcement Title and Program Announcement number on the Federal Express package.

In addition to following the submission instructions on the <http://epma.energy.gov> web site, please submit via email, a single PDF file of the entire LAB proposal and FWP. This will assist in expediting the review process. Please send the email to: Chris.Izzo@science.doe.gov. Please include "Formal Proposal for LAB 08-10" in the subject line of the email.

DOE National Laboratories should submit as instructed above. Researchers from other Federal agencies and Non-DOE Federally Funded Research and Development Centers (FFRDCs) should follow the format at http://www.science.doe.gov/grants/fed_prop.html and also submit via email as stated above.

FOR FURTHER INFORMATION CONTACT:

PROGRAM MANAGER: Dr. Eugene Henry, Office of Nuclear Physics
PHONE: (301) 903-6093

FAX: (301) 903-3833

E-MAIL: Gene.Henry@science.doe.gov

Communications related to the formal proposal should use "Program Announcement LAB 08-10" in the subject line.

SUPPLEMENTARY INFORMATION:

Program Objective:

The mission of the NP program is to enable fundamental research in nuclear physics that will advance our knowledge of the nature of matter and energy, and develop the needed technologies and workforce. While the U.S. is planning for a national facility for rare isotope beams (FRIB) in the latter part of the next decade, it is crucial for U.S. scientists to maintain leadership in the field. To that end, the Office of Nuclear Physics intends to provide funding for the U.S. nuclear physics research community to play a prominent role in developing outstanding research opportunities in nuclear structure and dynamics, nuclear astrophysics, and tests of fundamental interactions and symmetries at leading RIB facilities currently operating, being upgraded or being constructed around the world. The capabilities at these facilities will provide unique opportunities for U.S. nuclear physics researchers to stay engaged at the forefront of the field, both scientifically and technologically, including opportunities for research collaboration, accelerator research and development activities, and fabrication of accelerator components or scientific instrumentation. The Office of Nuclear Physics envisions multi-year funding for one or more proposals with relevance for the planned U.S. RIB facility.

Program Funding:

It is anticipated that a total of up to \$50,000,000 will be available for awards over a period of up to ten years, starting as early as Fiscal Year 2010 with a total of up to \$1,000,000 in that year. The number and size of awards will depend on the number of formal proposals selected for award, and the availability of appropriated funds. DOE is under no obligation to pay for any costs associated with preparation or submission of proposals. DOE reserves the right to fund, in whole or in part, any, all, or none of the proposals submitted.

Formal Proposals

The research project description must be 25 pages or less, exclusive of attachments and must contain an abstract or summary of the proposed research. All collaborators should be listed with the abstract or summary. Attachments include curriculum vitae, a listing of all current and pending federal support and letters of intent when collaborations are part of the proposed research. Curriculum vitae should be limited to no more than two pages per individual.

The instructions and format described below should be followed. You must reference Program Announcement LAB 08-10 on all submissions and inquiries about this program.

OFFICE OF SCIENCE
GUIDE FOR PREPARATION OF SCIENTIFIC/TECHNICAL PROPOSALS
TO BE SUBMITTED BY NATIONAL LABORATORIES

Proposals from National Laboratories submitted to the Office of Science (SC) as a result of this program announcement will follow the Department of Energy Field Work Proposal process with additional information requested to allow for scientific/technical merit review. The following guidelines for content and format are intended to facilitate an understanding of the requirements necessary for SC to conduct a merit review of a proposal. Please follow the guidelines carefully, as deviations could be cause for declination of a proposal without merit review.

1. Evaluation Criteria

After an initial screening for eligibility and responsiveness to the solicitation, proposals will be subjected to scientific merit review (peer review). The proposals will be evaluated against the following criteria, which are listed in descending order of importance:

1. Scientific and/or technical merit of the project;
2. Appropriateness of the proposed method or approach;
3. Competency of applicant's personnel and adequacy of proposed resources; and
4. Reasonableness and appropriateness of the proposed budget.

The evaluation process will include program policy factors such as the relevance of the proposed research to the terms of the announcement and the agencies' programmatic needs. In addition, the evaluation process will include these program policy factors:

- The particular outstanding scientific opportunity afforded by U.S. investments at the host facility;
- The opportunity for a leading or significant role by U.S. participants; and
- The relevance or impact on the planned U.S. FRIB and associated program.

External peer reviewers are selected with regard to both their scientific expertise and the absence of conflict-of-interest issues. Both Federal and 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.

2. Summary of Proposal Contents

- Field Work Proposal (FWP) Format (Reference DOE Order 412.1A) (DOE ONLY)
- Proposal Cover Page
- Table of Contents
- Budget (DOE Form 4620.1) and Budget Explanation
- Abstract (one page)
- Narrative (main technical portion of the proposal, including background/introduction, proposed research and methods, timetable of activities, and responsibilities of key project personnel)
- Literature Cited
- Biographical Sketch(es)
- Description of Facilities and Resources
- Other Support of Investigator(s)

- Appendix (optional)

2.1 Number of Copies to Submit

A complete formal FWP in a single Portable Document Format (PDF) document that has 'formatted text and graphics' (also known as "native" PDF) must be submitted using the **Office of Science Field Work Proposal Instructions** provided in the Notice to Users section on the ePMA home page: <http://epma.energy.gov>. (This submission process includes sending the FWP via CD using Federal Express).

Send CD via Federal Express to:

Ms. Christine Izzo
U.S. Department of Energy
Office of Nuclear Physics, SC-26.2/GTN
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To identify that the FWP is responding to this program announcement, when sending your CD please identify the Program Announcement Title and Program Announcement number on the Federal Express package.

In addition to following the submission instructions on the <http://epma.energy.gov> web site, please submit via email, a single PDF file of the entire LAB proposal and FWP. This will assist in expediting the review process. Please send the email to: Chris.Izzo@science.doe.gov. Please include "Formal Proposal for LAB 08-10" in the subject line of the email.

3. Detailed Contents of the Proposal

Adherence to type size and line spacing requirements is necessary for several reasons. No researcher should have the advantage, by using small type, of providing more text in their proposals. Small type may also make it difficult for reviewers to read the proposal. Proposals must have 1-inch margins at the top, bottom, and on each side. Type sizes must be at least 11 point. Line spacing is at the discretion of the researcher, but there must be no more than 6 lines per vertical inch of text. Pages should be standard 8 1/2" x 11" (or metric A4, i.e., 210 mm x 297 mm).

3.1 Field Work Proposal Format (Reference DOE Order 412.1A) (DOE ONLY)

The Field Work Proposal (FWP) is to be prepared and submitted consistent with policies of the investigator's laboratory and the local DOE Operations Office. Additional information is also requested to allow for scientific/technical merit review.

Laboratories may submit proposals directly to the SC Program office listed above. A copy should also be provided to the appropriate DOE operations office.

3.2 Proposal Cover Page

The following proposal cover page information may be placed on plain paper. No form is required.

Title of proposed project
SC Program announcement title
Name of laboratory
Name of principal investigator (PI)
Position title of PI
Mailing address of PI
Telephone of PI
Fax number of PI
Electronic mail address of PI
Name of official signing for laboratory*
Title of official
Fax number of official
Telephone of official
Electronic mail address of official
Requested funding for each year; total request
Use of human subjects in proposed project:
 If activities involving human subjects are not planned at any time during the proposed project period, state "No"; otherwise state "Yes", provide the IRB Approval date and Assurance of Compliance Number and include all necessary information with the proposal should human subjects be involved.
Use of vertebrate animals in proposed project:
 If activities involving vertebrate animals are not planned at any time during this project, state "No"; otherwise state "Yes" and provide the IACUC Approval date and Animal Welfare Assurance number from NIH and include all necessary information with the proposal.
Signature of PI, date of signature
Signature of official, date of signature*

*The signature certifies that personnel and facilities are available as stated in the proposal, if the project is funded.

3.3 Table of Contents

Provide the initial page number for each of the sections of the proposal. Number pages consecutively at the bottom of each page throughout the proposal. Start each major section at the top of a new page. Do not use unnumbered pages and do not use suffices, such as 5a, 5b.

3.4 Budget and Budget Explanation

A detailed budget is required for the entire project period and for each fiscal year. It is preferred that DOE's budget page, Form 4620.1 be used for providing budget information*. Modifications

of categories are permissible to comply with institutional practices, for example with regard to overhead costs.

A written justification of each budget item is to follow the budget pages. For personnel this should take the form of a one-sentence statement of the role of the person in the project. Provide a detailed justification of the need for each item of permanent equipment. Explain each of the other direct costs in sufficient detail for reviewers to be able to judge the appropriateness of the amount requested.

Further instructions regarding the budget are given in section 4 of this guide.

* Form 4620.1 is available at web site: <http://www.science.doe.gov/grants/budgetform.pdf>

3.5 Abstract

Provide an abstract of less than 400 words. Give the project objectives (in broad scientific terms), the approach to be used, and what the research is intended to accomplish. State the hypotheses to be tested (if any). At the top of the abstract give the project title, names of all the investigators and their institutions, and contact information for the principal investigator, including e-mail address.

3.6 Narrative (main technical portion of the proposal, including background/introduction, proposed research and methods, timetable of activities, and responsibilities of key project personnel).

The narrative comprises the research plan for the project and is **limited to 25 pages** (maximum). It should contain enough background material in the Introduction, including review of the relevant literature, to demonstrate sufficient knowledge of the state of the science. The major part of the narrative should be devoted to a description and justification of the proposed project, including details of the methods to be used. It should also include a timeline for the major activities of the proposed project, and should indicate which project personnel will be responsible for which activities.

If any portion of the project is to be done in collaboration with another institution (or institutions), provide information on the institution(s) and what part of the project it will carry out. Further information on any such arrangements is to be given in the sections "Budget and Budget Explanation," "Biographical Sketches," and "Description of Facilities and Resources."

3.7 Literature Cited

Give full bibliographic entries for each publication cited in the narrative.

3.8 Biographical Sketches

This information is required for senior personnel at the institution submitting the proposal and at all subcontracting institutions (if any). The biographical sketch is limited to a maximum of two pages for each investigator.

To assist in the identification of potential conflicts of interest or bias in the selection of reviewers, the following information must be provided in each biographical sketch.

Collaborators and Co-editors: A list of all persons in alphabetical order (including their current organizational affiliations) who are currently, or who have been, collaborators or co-authors with the investigator on a research project, book or book article, report, abstract, or paper during the 48 months preceding the submission of the proposal. Also, include those individuals who are currently or have been co-editors of a special issue of a journal, compendium, or conference proceedings during the 24 months preceding the submission of the proposal. If there are no collaborators or co-editors to report, this should be so indicated.

Graduate and Postdoctoral Advisors and Advisees: A list of the names of the individual's own graduate advisor(s) and principal postdoctoral sponsor(s), and their current organizational affiliations. A list of the names of the individual's graduate students and postdoctoral associates during the past five years, and their current organizational affiliations.

3.9 Description of Facilities and Resources

Facilities to be used for the conduct of the proposed research should be briefly described. Indicate the pertinent capabilities of the institution, including support facilities (such as machine shops), that will be used during the project. List the most important equipment items already available for the project and their pertinent capabilities. Include this information for each subcontracting institution (if any).

3.10 Other Support of Investigators

Other support is defined as all financial resources, whether Federal, non-Federal, commercial, or institutional, available in direct support of an individual's research endeavors. Information on active and pending other support is required for all senior personnel, including investigators at collaborating institutions to be funded by a subcontract. For each item of other support, give the organization or agency, inclusive dates of the project or proposed project, annual funding, and level of effort (months per year or percentage of the year) devoted to the project.

3.11 Appendix

Information not easily accessible to a reviewer may be included in an appendix, but do not use the appendix to circumvent the page limitations of the proposal. Reviewers are not required to consider information in an appendix, and reviewers may not have time to read extensive appendix materials with the same care they would use with the proposal proper.

The appendix may contain the following items: up to five publications, manuscripts accepted for publication, abstracts, patents, or other printed materials directly relevant to this project, but not generally available to the scientific community; and letters from investigators at other institutions stating their agreement to participate in the project (do not include letters of endorsement of the project).

4. Detailed Instructions for the Budget

(DOE Form 4620.1 "Budget Page" may be used).

4.1 Salaries and Wages

List the names of the principal investigator and other key personnel and the estimated number of person-months for which DOE funding is requested. Proposers should list the number of postdoctoral associates and other professional positions included in the proposal and indicate the number of full-time-equivalent (FTE) person-months and rate of pay (hourly, monthly or annually). For graduate and undergraduate students and all other personnel categories such as secretarial, clerical, technical, etc., show the total number of people needed in each job title and total salaries needed. Salaries requested must be consistent with the institution's regular practices. The budget explanation should define concisely the role of each position in the overall project.

4.2 Equipment

DOE defines equipment as "an item of tangible personal property that has a useful life of more than two years and an acquisition cost of \$25,000 or more." Special purpose equipment means equipment which is used only for research, scientific or other technical activities. Items of needed equipment should be individually listed by description and estimated cost, including tax, and adequately justified. Allowable items ordinarily will be limited to scientific equipment that is not already available for the conduct of the work. General purpose office equipment normally will not be considered eligible for support.

4.3 Domestic Travel

The type and extent of travel and its relation to the research should be specified. Funds may be requested for attendance at meetings and conferences, other travel associated with the work and subsistence. In order to qualify for support, attendance at meetings or conferences must enhance the investigator's capability to perform the research, plan extensions of it, or disseminate its results. Consultant's travel costs also may be requested.

4.4 Foreign Travel

Foreign travel is any travel outside Canada and the United States and its territories and possessions. Foreign travel may be approved only if it is directly related to project objectives.

4.5 Other Direct Costs

The budget should itemize other anticipated direct costs not included under the headings above, including materials and supplies, publication costs, computer services, and consultant services (which are discussed below). Other examples are: aircraft rental, space rental at research establishments away from the institution, minor building alterations, service charges, and fabrication of equipment or systems not available off-the-shelf. Reference books and periodicals may be charged to the project only if they are specifically related to the research.

a. Materials and Supplies

The budget should indicate in general terms the type of required expendable materials and supplies with their estimated costs. The breakdown should be more detailed when the cost is substantial.

b. Publication Costs/Page Charges

The budget may request funds for the costs of preparing and publishing the results of research, including costs of reports, reprints page charges, or other journal costs (except costs for prior or early publication), and necessary illustrations.

c. Consultant Services

Anticipated consultant services should be justified and information furnished on each individual's expertise, primary organizational affiliation, daily compensation rate and number of days expected service. Consultant's travel costs should be listed separately under travel in the budget.

d. Computer Services

The cost of computer services, including computer-based retrieval of scientific and technical information, may be requested. A justification based on the established computer service rates should be included.

e. Subcontracts

Subcontracts should be listed so that they can be properly evaluated. There should be an anticipated cost and an explanation of that cost for each subcontract. The total amount of each subcontract should also appear as a budget item.

4.6 Indirect Costs

Explain the basis for each overhead and indirect cost. Include the current rates.