



# FY 2009 PROGRAM ANNOUNCEMENT STEM-F.2009.WV.04 and Request for Proposals

research. a good investment for west virginia

## GRADUATE STUDENT FELLOWSHIPS IN SCIENCE, TECHNOLOGY, ENGINEERING AND MATH (STEM FELLOWS)

**Proposal Due Date:** October 30, 2008

### Summary of Program Requirements

- Program Title: Graduate Student Fellowships in Science, Technology, Engineering and Math (STEM fellows)
- Program Officer: Jan R. Taylor, Ph.D., Director of Research Programs,  
Division of Science & Research  
West Virginia Higher Education Policy Commission  
[jan.taylor@wvresearch.org](mailto:jan.taylor@wvresearch.org), 304-558-4128 x 3

### Eligibility Limits

- **Organization:** Statutory limitations provide this opportunity to West Virginia University and Marshall University only
- **Principal Investigator Eligibility:** Provost. If another individual or agent is making the application, signature of the Provost will be required to signify official approval of the plan
- **Limit on Number of Proposals:** One from each institution

2009

STEM Fellows

### Award Information

- **Anticipated Type of Award:** Standard or continuing grant, up to four years dependent on funding availability
- **Estimated Number of Awards:** 2
- **Limit on funding per award:** a total of \$500,000 in FY 2009

### Program Description

Pursuant to WVC 18B-1B-10, the Research Challenge Fund (RCF) was created by the WV Legislature to fund research and development at institutions of higher education and to increase competitiveness for external funding. Therefore, RCF provides common goals with the National Science Foundation (NSF), the Division of Science & Research (DSR) and WVEPSCoR for investments to build competitiveness. With RCF resources, this Program funds graduate student fellowships to attract and support high quality doctoral students that help address that goal.

Highly qualified and committed graduate and post-graduate students are essential to a university's research capacity. West Virginia produces a low number of graduate students enrolled in science, technology, engineering, and mathematics (STEM) fields and doctorates awarded in STEM fields, and has few post-doctoral fellows appointed in STEM fields. To address these challenges in graduate education, the Research Challenge Fund under the direction of DSR has reserved \$500,000 in FY 2009 to help West Virginia University and Marshall University recruit and support outstanding graduate students in STEM fields. Each university is asked to submit a detailed strategic plan, endorsed by its provost, for graduate STEM education that includes at least the following elements:

#### STEM graduate programs and student demographics

- A description of currently sponsored STEM graduate programs
- Identification of key strategic areas/disciplines where an investment in graduate education is most critical to building the university's research capacity and an explanation of how such an investment will build this capacity
- A description of the Research Experiences available or proposed for students in each discipline or investment area



- The current number of graduate students (master's, doctorate, and post-doctorate) studying in those identified areas/disciplines, demographics of those students, and their current means of support
- The projected number of graduate students (master's, doctorate, and post-doctorate) who will receive support through the Research Challenge funding

#### **STEM implementation plan**

- The manner in which Research Challenge funding will be used to support graduate students (e.g., tuition waivers, living stipends, book stipends) and if/how Research Challenge funding will augment other funding sources
- A long-term plan for identifying and recruiting outstanding graduate students in key strategic areas/disciplines
- A long-term plan for increasing diversity of graduate students in STEM fields

#### **STEM goals and management**

- Linkages to undergraduate research programs (e.g., SURE, INBRE, REU, etc.)
- Linkages to Primarily Undergraduate Institutions (PUI's) in recruiting outstanding undergraduate students to graduate STEM careers
- The total amount of funding requested
- Identification of travel or recruiting expenses anticipated.
- Describe methods for communicating, coordinating and managing activities including identification of the leadership team and chain of command.
- Describe the evaluation process that will be used to monitor progress under the project and discuss the personnel involved.

2009

STEM Fellows

Given DSR's emphasis on infrastructure growth in promising cluster areas, university strategic plans should pay special attention to existing research growth strategies.

**Citizenship:** Students who will receive program funds must be citizens or non-citizen nationals of the United States or have been lawfully admitted for permanent residence by the time of the award. Non-citizen nationals are people who are not citizens of the U.S., but who owe allegiance to the U.S. They generally are people born in outlying possessions of the United States (e.g. American Samoa). Individuals who have been lawfully admitted for permanent residence must have a currently valid Permanent Resident Card (I-551), known popularly as a Green Card, or other legal verification of such status.

#### **Application**

Applications for STEM Fellowship Grants must be submitted by the specified due date and should include a detailed budget showing requested funds, numbers of sponsored students and specific expenditures in each discipline or research area. Strategic research areas should be considered a first priority.

Proposals must be submitted via the Grant Opportunity (GO!) system. To apply, applicants must first register at <http://www.wvresearch.org/data/go/login.php>. During registration, use the tabs to provide contact data by clicking on the Basic Data tab and demographic data by clicking the Demographics tab. You may also upload or copy and paste your NSF-style or other brief biographical sketch in the tab labeled Biographic. These data take the place of the traditional cover sheet. After your registration is approved, you will be able to log on to the system. This will allow you to apply for open DSR grant programs and file reports on awards.

When you first log on to GO!, you will see the GO! Dashboard. It contains links to the various kinds of data you may need to submit. For all sections of the electronic application where text is required, you may type it in directly or copy/paste from a word processing document. If using Firefox, paste with the keyboard combination Shift+Insert or use the Paste from Word button at the top of the WYSIWYG editor.

Within a tabbed section of the system, a save button is only present on the first tab. Enter your data for all the tabs, then click Save on the first tab. You may edit your submission at any time until the end of the application period or until you click the Submit button also found on the first tab of the section. This includes uploaded documents - uploading a new document replaces the previously uploaded document. A PDF help document for the GO! system is available by clicking the Help link at the upper right corner of the page.

**Submitting an application:** Log in to your account and select Add a New Proposal from the GO! dashboard.

**Project Summary:** Provide a one-page summary that includes a heading and the project abstract. The heading should include the title of the proposed endeavor and the names of the submitting institution and Principal Investigator. The abstract should briefly describe the project goals, content, and expected outcomes.

**Project Description:** Refer to the Program Description section of this solicitation, which clearly outlines the requirements for the project description section of the proposal. The project description is limited to 15 pages with 2.5-cm margins on all sides and must use a legible 10-point Arial or 12-point proportional font (such as Times New Roman).

**Biographical Sketch:** Include a biographical sketch for each key personnel member. A two-page biographical sketch of the Principal Investigator (if you provided the bio when you registered, that is sufficient). If additional investigator(s) or co-PIs will play a significant role in the proposal, you should add them using the drop-down list on the Cover Info page. If the individual is not already listed in the system, add them by clicking on the blue question mark icon beside the Co-PI box, then provide basic information, demographics and biographic information for that person. Each sketch should be sufficiently detailed to show that the necessary expertise is available to conduct the project. Biosketches should be submitted for all research mentors as well as project leaders. Biosketches should include academic credentials, external funding received in the last 5 years, refereed publications in the last 5 years, and the students for whom the mentor or leader served as a thesis advisor or other research sponsor.

**Budget:** Provide a budget request for each year and a cumulative budget. A budget justification, not to exceed three pages, and addressing each budgetary line-item, must be prepared and submitted at the end of the Project Description (the budget justification is not included in the page limit for the Project Description). The budget spreadsheet can be downloaded from the DSR website at <http://www.wvresearch.org/library/files/10046.xls>. When you have completed your budget, upload it to GO! using the upload function on the Budget/Vendor Quote tab. If you need to make changes, upload a new budget sheet which will replace the original upload. You may make changes until the close of the application period or until you Submit the proposal.

## Budgetary Information

**Cost Sharing:** No matching is required. However, DSR will consider the positive impact of leveraging internal and external support in the overall consideration of each proposal.

**Indirect Cost Limitations:** Indirect costs are not allowed.

**Other Budgetary Limitations:** Research supplies and equipment costs are not allowed. A reasonable travel and recruiting expense will be considered. Other recruiting expenses may include brochures, phone expense, website development and other expenses as long as they may be directly assigned to recruiting.

## Due Date

Full proposals must be received by 5:00pm, Thursday, October 30, 2008.

## Review and Award Procedures

The WVEPSCoR State Advisory Council will review the applications and plans submitted by the institutions, provide feedback on their contents, and recommend the amount of the STEM Fellows grant to be awarded to each university. Two awards are anticipated from the existing funds. Upon recommendation by the Vice Chancellor for Science & Research, these awards will be processed by the Higher Education Policy Commission. Awards are expected to begin January 2009. If successful progress is demonstrated, renewal awards will be made in line with the overall strategy.

## Award Administration Information

**Notification:** Notification of the award is made to the submitting organization by the DSR. Organizations whose proposals are declined will be advised as promptly as possible.

**Award Conditions:** A RCF award consists of: (1) the award letter, which includes any special provisions applicable to the award and any numbered amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which DSR has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award letter; and (4) the applicable general award conditions pursuant to WV regulations. Awardees may adjust budget line items by no more than 10% without receiving prior written approval from the DSR.

## Reporting Requirements

Reports must be filed on an annual basis. Data must be provided in the report that includes standard demographics of the student population served and the success of students pursuing advanced degrees or programs. Evidence of student engagement including publications, participation in other competitions, academic achievement, and research accomplishments should be included. The report must be filed on the GO! system.

2009

STEM Fellows

Financial reporting and invoicing should be done no more frequently than monthly and at least quarterly and shall be on a reimbursement basis. Invoices should reflect expenses by budget item and should include a brief description of program activities during the invoice period. Annual reports should also propose renewal awards. Renewal awards may be requested using forms available on the WVEPSCoR website. Annual reports are due on October 15, 2009 and each year thereafter.

### Contact Information

For technical assistance or for other questions about GO!, please contact Jonathan Caldwell at [jonathan.caldwell@wvresearch.org](mailto:jonathan.caldwell@wvresearch.org). For programmatic questions, please use the contact information provided below.

Dr. Jan R. Taylor, Director of Research Programs  
Division of Science & Research  
WV Higher Education Policy Commission  
Attn: Instrumentation Grants Program  
Suite 1101  
1018 Kanawha Boulevard, East  
Charleston, West Virginia 25301  
[jan.taylor@wvresearch.org](mailto:jan.taylor@wvresearch.org)  
(304) 558-4128 x 3 voice  
(304) 558-2321 fax

STEM Fellows