U.S. DEPARTMENT OF ENERGY | Office of Science

## 2012 SUMMER TERM VFP FACULTY PARTICIPANT OBLIGATIONS

Through direct collaboration with research staff at DOE host laboratories, Visiting Faculty Program (VFP) appointments provide an opportunity for faculty to help create innovative new capabilities and make discoveries germane to DOE science missions. Through the experience, visiting faculty members also develop integrated skills that translate to programs at their home institutions, which can help sustain the scientific vibrancy required to grow the STEM workforce pipeline in key DOE science mission areas.

### Required Deliverables

There are two primary deliverables:

1) **Oral Presentation**:
   All faculty participants are strongly encouraged to deliver an oral presentation before the PI's team/group/division to inform peers and host institution management about the proposed and ongoing research activities being contemplated and/or undertaken. Prior to the presentation, submission of a short (150 word) abstract summarizing the presentation content, as well as all final content used in the presentation, is encouraged.

2) **Project Report:**
   All faculty participants are required to submit a project report for their research activities. This report should be a summary of scientific and technical goals and accomplishments, and can also include anticipated accomplishments if the collaborative effort were to continue beyond this term. Submission must be made prior to the end of your appointment and as directed by your host laboratory.

Development of the materials required to fulfill the deliverables may be performed using word processing and/or graphics design/presentation software of your choice, but all final copies must be made available in an Adobe Acrobat (.pdf) file format, and submitted using the EducationLink online system. Instructions for preparing and submitting (uploading in EducationLink) Acrobat file formatted copies of deliverables will be available from your internship host institution. Guidelines, requirements, and instructions for preparing the program deliverables follow directly below.

### Guidelines, Requirements, and Instructions

#### 1. ORAL PRESENTATION

VFP faculty participants are strongly encouraged to deliver a 30-minute long oral presentation before an appropriate peer group, determined by the host institution. This peer group setting can, for example, involve other VFP participants, other students or visitors, the participant's research team, group, division, *etc*., or combinations thereof. Talks should be scheduled for a 30-45 long minute long

discussion, with an additional 5 minutes allotted for questions and discussion. The subject matter for the presentation is to be based upon the participant's proposed/completed research project activities. One week prior to the presentation, submission, via EducationLink, of a short (150 word) abstract summarizing the talk's content, as well as the presentation itself, is suggested. The abstract and presentation content should be submitted in a combined single Adobe Acrobat (.pdf) file, and host institutions will provide detailed instructions regarding the file submission on the EducationLink online system.

**2. PROJECT REPORT**

Application to the program required submission and acceptance of a research proposal. This proposal is co-written by the visiting faculty member and a member of the DOE host laboratory's research staff, who serve as the project's co-Principal Investigators (PI). Based upon the proposed research and upon the outcome of the completed project activities during the appointment, you are required to write and submit a project report, due prior to the end of your 2012 VFP appointment and as directed by your host laboratory. The submission is made using the EducationLink system, and must be in an Adobe Acrobat (.pdf) format. Host Laboratories can provide additional instructions on the upload.

This required report should communicate the outcomes and success of your proposed research activities to the Office of Workforce Development for Teachers and Scientists (WDTS). It is not intended to be a scientific publication, and should be a narrative on meaningful outcomes and directions that result from your effort towards fulfilling the set of research activities and directions proposed at the time of application. The content of your report should be written at a level for readers who are not necessarily subject matter experts, but do have general scientific or technical knowledge and research experience.

**Report Format**

The report can only be submitted as a normal Adobe Acrobat PDF document (with a name of the form "yourfilename.pdf") via an upload to the EducationLink online system. The required page format comprises margins of one inch around the text (top, bottom, left, right) with the text being in a 12-point, single-spaced (12 point), Times, Times Roman or appropriate symbol font (for math script).

**Required Elements**

***Abstract.*** An approximately 300-word summary of the following six required sections.

<u>No more than a total of six pages, comprising the report's *Body*, can be used to appropriately address each of the following six sections</u>:

1) ***Introduction*** - *Background and Research Objectives*. Provide the context of past and competing technical work that motivated the project; how the present work goes beyond that work; the

proposed research objectives of this work, and how well they were met, including additional objectives that developed in the course of the project.

2) ***Progress -*** *Scientific Approach, Impacts, and Accomplishments.* Describe the scientific or technical approach taken by the project; scientific or technical results, stressing the most significant accomplishments and discoveries.
3) ***Future Work –*** Briefly state future research activities anticipated or planned, with estimates of required scope to achieve or extend the proposed project deliverables.
4) ***Impact on Laboratory or National Missions****.* Briefly describe project connection and relevance to DOE and Laboratory missions; actual impact on projects including both (a) changes to direction of existing projects and/or (b) new work or new capabilities resulting from the project. Please include a statement regarding the source of funding for the primary research project.
5) ***Conclusions***
6) ***References***

***Appendix:***

Following the *References* section, please address the following, as appropriate, using no more than two additional pages):

***Participants-*** In a table, list the names, institutions, and roles of each person who participated in the project, including host lab personnel, VFP students, or other students, as appropriate. Include a brief statement of each participant's project team role.

***Scientific Facilities*** - Briefly state if any scientific user facilities were used in your project, including identification of the facility.

***Notable Outcomes*** - *Publications, Reports, Patents, or Presentations*. List any archival peer-reviewed journal articles, patent disclosures, laboratory technical reports, invited/contributed conference/workshop presentations, and/or internal presentations resulting from research performed under this appointment. Please include full bibliographical citations, co-authors, affiliations, titles, and/or venues, as appropriate.

***Research Vibrancy*** – Please describe any future research activities enabled through this appointment, including planned return visits to, or research engagement with, DOE labs/facilities under VFP or other programs/funding, as appropriate.

***Connection to Programs at Home Academic Institution*** – Briefly describe any anticipated impact to your home academic institution classroom or research activities enabled, promoted, or planned as a result of your appointment, as appropriate.

**Additional Guidelines**

***Abstract***

The *Abstract* should be on a separate page preceding the report's *Body*.

***Body***

The entire document may not exceed 6 pages.

***References***

Publications listed in the *References* section of your report should be cited in the report body in brackets by number. Example: As illustrated in Figure 3, we used a newly reported optical measurement for the ultrafast dynamic response of shocked photonic crystals [1].

***Appendix***

The *Appendix* should follow the report's *Body*, on no more than two separate additional pages.

***Figures***

Your report may not include more than three figures. Please ensure that your figures are high resolution and that all text included in the figures is legible. It is helpful to include figures that illustrate concepts and approaches as well as scientific and technical results. Each figure must have a caption. When referencing figures in your report, please spell out and capitalize the word *Figure* and follow it with the number of the figure to which you are referring.

Examples:

> An example of our work is shown in Figure 1.
>
> Schematic diagrams of ultrafast electrical current and terahertz-harmonic generation in (a) centrosymmetric media with four-wave mixing, (b) symmetry broken boundaries, and (c) centrosymmetric media in a biased DC electric field. (Figure 2).

***Equations***

Equations should not be included in your report unless they are absolutely necessary to communicate an important concept. Equations must be embedded such that no special characters or symbols are lost when converting and uploading files.

***Acronyms***

Spell out all acronyms the first time they are used. Do not assume the reader knows your terminology.