

**U.S. DEPARTMENT OF ENERGY  
NATIONAL NUCLEAR SECURITY ADMINISTRATION  
OFFICE OF NONPROLIFERATION AND INTERNATIONAL SECURITY'S  
NEXT GENERATION SAFEGUARDS INITIATIVE**

**Nuclear Nonproliferation International Safeguards  
Graduate Fellowship Program**



**Student Deadline for Applications for 2014-2015**  
**March 3, 2014**

**Awards Announced April 2014**

**Administered by:**  
**The Medical University of South Carolina (MUSC), Office of Special Programs through a Cooperative Agreement  
with the South Carolina Universities Research and Education Foundation (SCUREF)**

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## **INTRODUCTION TO THE NUCLEAR NONPROLIFERATION INTERNATIONAL SAFEGUARDS GRADUATE FELLOWSHIP PROGRAM**

This program is designed to meet the needs of the Department of Energy's (DOE) National Nuclear Security Administration (NNSA) for appropriately trained personnel in research and development in areas pertinent to Nuclear Nonproliferation and International Safeguards (NNIS). Increasing costs for graduate education and a high demand for nuclear-related scientists and engineers with a bachelor's degree have had a negative impact on the number of well-qualified students seeking advanced degrees in nuclear technologies and sciences. This problem has been particularly acute in programs in nuclear materials, engineering, nuclear science and engineering, radiochemistry and health physics, which has resulted in the closure of several programs and declining graduate school enrollments over the past two decades. This fellowship seeks to build collaboration between the leading nuclear technology programs and the schools studying the policy aspects of nuclear nonproliferation. The primary emphasis of this fellowship is to produce doctoral graduates who are familiar with both the technical and policy aspects of nonproliferation and international safeguards.

Two additional elements are having a negative impact on the United States' Nuclear Nonproliferation International Safeguards workforce pipeline. First, the demand for nuclear scientists and engineers (NSE) has increased dramatically over the past five years. The employment demands from the radiopharmaceutical, nuclear power, nuclear defense, and waste management industries have caused a dramatic increase in the demand for nuclear scientists and engineers, who would previously have worked in the Nonproliferation International Safeguards arena. Secondly, recent surveys have shown that the majority of NSE currently in the workforce are rapidly approaching retirement age. As a result, the demand for workers in this field will continue to increase in the near future.

The NNSA's Next Generation Safeguards Initiative (NGSI) is a comprehensive, multi-million dollar per year program dedicated to developing the policies, concepts, technologies, expertise, and infrastructure necessary to sustain the international safeguards system over the next 25 years. One of the key elements of the NGSI is the revitalization and expansion of the nuclear nonproliferation and international safeguards human capital base to meet the challenges outlined above through targeted investments in a new generation of international nuclear safeguards professionals.

The NNSA is the principal federal sponsor of long-term Nuclear Nonproliferation International Safeguards-related research and development. The investments made by NNSA focus on cutting edge, high-risk/high-payoff, basic and applied research, including testing and evaluation. This work has led to improvements in international safeguards systems and technologies. These efforts can only be enhanced through the appropriate development of a technical workforce to meet the challenges posed by making the world safe from nuclear threat.

This fellowship program is designed to provide incentives for universities to invest in and develop their NSE programs. Specifically, this program's goal is to encourage talented students to continue their education and seek a graduate education in research related to international safeguards and nuclear nonproliferation.

### **TECHNICAL AREAS**

The objective of the Nuclear Nonproliferation International Safeguards Graduate Fellowship (NNIS) program is to meet NNSA's need for highly trained scientists and engineers in the technical areas in which NNSA has ongoing research and development programs. At present, these areas include the following:

- Advancements in analytical techniques and instrumentation used in determining inventory and characterization of nuclear materials.
- Identifying ways to improve laboratory or in-field instrumentation and techniques for the physical, chemical, and radiological analysis of nuclear materials.
- Development of improved approaches to integrating international safeguards into the early design of nuclear facilities.
- Development of advanced safeguard approaches and techniques that can be applied to existing and future nuclear facilities, including, *inter alia*, uranium enrichment, reprocessing, and reactor facilities.

- Development of additional technologies that can be used to detect, verify, and monitor nuclear materials as it relates to production and proliferation.
- Innovative ways to strengthen safeguards and security infrastructures, through training and other capacity building measures, in countries with credible plans to develop the peaceful uses of nuclear energy.
- Application or adaptation of technology advances in the information and communication technology sphere to make safeguards implementation more efficient and/or effective.
- Aiding the improvement and maintenance of U.S. infrastructure used to support safeguards equipment and methods development.

## APPLICATION PROCEDURES

### ELIGIBILITY

This fellowship is open to all individuals who will be starting graduate studies or graduate students who are currently enrolled in a qualified course of study (see technical areas) and have at least one full year of graduate work remaining at the beginning of September 2014. The award is limited to 24 months for master's candidates and 48 months for doctoral candidates. A fellowship appointment may not exceed 48 months and all appointments will be prorated for previous graduate work. The length of the fellowship appointment is based on the amount of graduate work completed before the initial fellowship appointment date. Awards may be limited to less time than the maximum in some situations.

Applicants must be U.S. citizens. It is the policy of the Medical University of South Carolina (MUSC) to uphold Title VII of the Civil Rights Act of 1964, as amended, prohibits discrimination in hiring, promotion, discharge pay, fringe benefits, job training, classification, referral, and other aspects of employment, on the basis of race, color, religion, sex or national origin.

### APPLICATION DEADLINE

The current competition cycle for this program is from November 2013 - March 3, 2014. **The MUSC Office of Special Programs must receive all parts of the application by March 3, 2014.** GRE scores are *required* for a complete application. Scores earned before November 2004 will not be accepted. MUSC will not process late and/or incomplete applications. Please include the fellowship program name on all correspondence.

A complete application includes the following components:

- Application Form
- Three (3) References
- Official Transcripts (undergraduate and graduate transcripts must be sent directly from the university registrar)
- GRE scores (GRE code 5949 – scores must be sent directly from ETS)

*Forms are located at [www.scuref.org/forms](http://www.scuref.org/forms) under the NNIS tab. Applicants should submit all materials electronically through the SCUREF website. If you are unable to submit the application electronically, you may mail completed application materials to the following address:*

Medical University of South Carolina  
 Office of Special Programs, NNIS  
 19 Hagood Avenue, HOT 304-H4  
 MSC 851  
 Charleston, SC 29425-8510

For additional information or assistance, please contact the MUSC Office of Special Programs at (843) 792-0832 or [nhuchet@scuref.org](mailto:nhuchet@scuref.org).

## FELLOWSHIP OBLIGATIONS

### ENROLLMENT

The initial fellowship appointment is for a 12-month period and renewable for up to a total of 48 months. Each appointment is prorated based on the amount of graduate work completed prior to the fellowship appointment date. Throughout the fellowship period, graduate students must be enrolled full time at an approved university and perform study and research within the objectives of the fellowship program. During the summer months, fellows are to continue working toward achieving a doctoral degree. Students may choose to conduct research relevant to their specialization, enroll in summer classes, complete a practicum assignment, or do a combination of the three. Please note a fellowship appointment is contingent upon certification of acceptance into the education program at the respective university.

### TERMS OF APPOINTMENT

Each fellow must agree to the conditions contained in the letter of appointment and terms of appointment. This includes agreement to perform a course of study and research in NNIS technically related areas and participate in at least one summer practicum at an NNIS-sponsored laboratory. Fellows agree to entertain employment offers by either DOE or one of its contractors.

### ANNUAL RENEWAL OF FELLOWSHIP

Each fellowship appointment is renewed annually through a renewal application process. The renewal is based upon the fellow's academic performance and course of study. An official Renewal Form along with official transcripts must be submitted to MUSC by March 1<sup>st</sup> of each year. Fellows must inform MUSC of their current addresses and must complete any evaluation/assessment questionnaires sent by MUSC for program information and/or evaluation during the fellowship and for 5 years after the fellowship ends.

### PRACTICUM

Fellows are required to participate in one practicum for at least three months at a designated DOE/NNSA facility to gain hands-on experience. Fellows typically complete their practicums during the summer and any practicum may be used to support the Fellow's thesis research. To initiate a practicum appointment, the fellow must first contact a laboratory coordinator to express an interest in participating at a sponsored facility and then fill out a Practicum Request Form on [www.scuref.org/forms](http://www.scuref.org/forms). Designated practicum locations and coordinators can be found on page eight (8) of this booklet. *In certain cases Practicum assignments may be approved at European Union designated laboratories. Please contact the program administrators for additional information.*

Upon acceptance of a practicum appointment at a DOE/NNSA facility or an affiliated federal agency, fellows may be required to apply for a security clearance. The appropriate personnel security office of the host facility will process the clearance.

### PROGRAMS AT PARTICIPATING UNIVERSITIES

Fellowship awardees are required to attend a university designated as a DOE-approved institution of higher learning in the NNIS Fellowship program. To become a participating university, interested faculty members must submit an application, which can be found on [www.scuref.org/forms](http://www.scuref.org/forms). Universities selected to participate in the program will have demonstrated a commitment to advancing nuclear nonproliferation international safeguards education and creating a sustainable academic program. The list of participating universities and university fellowship coordinators is provided on page seven (7) of this booklet. Interested applicants may contact any fellowship coordinator directly for detailed information related to the university's nuclear nonproliferation international safeguards program.

## EVALUATION OF APPLICATIONS

When an application is received, MUSC will review all the materials to ensure that the applicant has completed all the necessary forms. If time permits, the staff will attempt to contact applicants who have submitted an incomplete application. However, it is the applicant's responsibility to check with MUSC to ensure that an application is complete.

After an application is reviewed and designated complete, it is submitted with all other complete applications, to a review panel. The review panel is composed of university, NNSA, and national laboratory personnel who are directly responsible for instruction and/or research in the international safeguards and nuclear nonproliferation fields. The panel reviews each application and recommends award recipients. Applications are reviewed on the basis of grades, previous coursework, GRE scores, career and goals statement, and references. Other factors, including geographical criteria and professional personnel needs of the DOE/NNSA international safeguards nuclear non-proliferation research program, are also considered. The NNSA program sponsor reviews the applications and the panel's recommendations and approves the final selection.

The number of awards given each year is dependent on the number of graduating fellows currently in the program and on the funding availability.

After the NNSA approves the award recipients, MUSC notifies applicants of their award status. Notification usually occurs in April. Once fellowships are awarded, MUSC handles the administration of the fellowship for the NNSA. Questions about stipends, payment of tuition and fee, practicum assignments, travel, etc., should be directed to MUSC.

## PROGRAM BENEFITS

In most cases, the maximum value of any individual award, including stipend, tuition and fees, and summer practicum, is \$50,000/yr.

### STIPEND

Fellows receive a monthly stipend in the amount of \$2,200. The fellow's basic stipend is augmented by \$500 (prorated) each month during the practicum. MUSC will either deposit stipends directly into the fellow's bank account or mail monthly stipends directly to the fellow.

The NNSA attempts to provide adequate funding to its fellowship participants for meeting the cost of graduate school but other awards, prizes, and similar payments (including veteran's benefits) that do *not* require a product or service may be accepted by the fellowship participant. *If a fellow accepts another award such as a research assistantship or other responsibilities in which funds are provided and the fellow is required to spend time on the project, MUSC must be informed in advance and any resulting payments may be deducted from the fellow's stipend. In addition, MUSC reserves the right to withdraw the fellowship if the fellow receives compensation without notifying MUSC as to the nature and extent of any payment.*

### TUITION AND FEES

The fellows required tuition and fees are paid by MUSC directly to the participating university upon receipt of invoice. Optional, refundable, and penalty fees (such as late registration and duplication fees) are not payable by MUSC. Health insurance fees will be paid by MUSC only if they are certified to be required for all graduate students. All tuition and fee charges must be certified consistent with those made to regular graduate students and necessary for enrollment into the graduate program. The tuition is limited to \$23,600/year. Any charge above that will not be assumed by the fellowship. In August of each year, MUSC notifies the bursar's office at each university regarding procedures for invoicing for fellowship students.

### TRAVEL

Provided the distance from the fellow's university is more than 50 miles each way to/from the practicum site, travel expenses are reimbursable. MUSC uses the current U.S. General Services Administration (GSA) to

calculate reimbursement of incurred expenses. No expenses are paid for food or lodging at the practicum site. Travel expenses are allowable on occasions requiring the fellow to consult with the university graduate committee and/or deliver a presentation of thesis research. Funds permitting, fellowship recipients may have the opportunity to present a paper or poster at a national and/or international conference. Conference travel requires approval by MUSC at least one month before the anticipated travel dates. It is the fellow's responsibility to find the least expensive reasonable mode of travel before submitting this information on a travel request form.

#### **THESIS RESEARCH AT PARTICIPATING DOE/NNSA DESIGNATED CENTERS**

A fellow may request to spend all or part of the time working on thesis/dissertation research at one of the participating DOE/NNSA-approved facilities (page eight (8) of this booklet). To request off-campus research, a fellow should complete a Thesis/Dissertation Laboratory Assignment Request Form (available on [www.scuref.org/forms](http://www.scuref.org/forms)). Throughout the research assignment, the faculty advisor must agree to supervise the fellow's progress, coordinate activities with facility personnel, and may make a trip to the facility to review the fellow's research. In addition, a research advisor assigned by the facility will mentor the fellow and may serve on the fellow's graduate thesis research committee, if approved by the university. Travel expenses are reimbursable in accordance with MUSC's Travel Policy based on GSA regulations.

#### **PUBLICATION ACKNOWLEDGMENT**

DOE and MUSC encourage fellows to publish reports and articles in scientific and engineering journals and present posters or papers at conferences. The fellow must submit any articles, reports, posters, papers, theses, etc. to MUSC at least three weeks before submission for publication, presentation, etc. These works should show the joint affiliation of the fellow with the university and, if appropriate, with the laboratory in which the research was conducted, and should acknowledge fellowship support.

Fellowship support should be acknowledged in the following manner:

*"This research was performed under appointment to the Nuclear Nonproliferation International Safeguards Graduate Fellowship Program sponsored by the National Nuclear Security Administration's Next Generation Safeguards Initiative (NGSI)."*

NUCLEAR NONPROLIFERATION INTERNATIONAL SAFEGUARDS FELLOWSHIP PROGRAM  
PARTICIPATING UNIVERSITIES

<p><b>CLEMSON UNIVERSITY</b> Timothy DeVol, Ph.D. Environmental Engineering and Earth Sciences 342 Computer Court Anderson, SC 29625-6510 864-656-1014 <a href="mailto:Devol@clemson.edu">Devol@clemson.edu</a></p>	<p><b>UNIVERSITY OF CALIFORNIA, BERKELEY</b> Eric Norman, Ph.D. Nuclear Engineering Department 4109 Etcheverry Hall, MC 1730 Berkeley, CA 94720-1730 510-643-9984 <a href="mailto:ebnorman@lbl.gov">ebnorman@lbl.gov</a></p>
<p><b>GEORGIA INSTITUTE OF TECHNOLOGY</b> Farzad Rahnema, Ph.D. Boggs Building 770 State Street, Rom 3-39S Atlanta, GA 30332 404-894-3731 <a href="mailto:Farzad@gatech.edu">Farzad@gatech.edu</a></p>	<p><b>UNIVERSITY OF ILLINOIS, CHAMPAIGN</b> James F. Stubbins, Ph.D. Department of Nuclear, Plasma and Radiological Engineering 216 Talbot Laboratory, MC-234 104 S. Wright St. Urbana, IL 61801 217-333-6474 <a href="mailto:jstubbin@illinois.edu">jstubbin@illinois.edu</a></p>
<p><b>MASSACHUSETTS INSTITUTE OF TECHNOLOGY</b> Richard Lanza, Ph.D. Department of Nuclear Science and Engineering Kennedy School 77 Massachusetts Avenue, Room NW14-2222 Cambridge, MA 02319 617-253-2399 <a href="mailto:lanza@mit.edu">lanza@mit.edu</a></p>	<p><b>UNIVERSITY OF MICHIGAN</b> Sara Pozzi, Ph.D. Department of Nuclear Engineering and Radiological Sciences 2355 Bonisteel Boulevard 1902 Cooley Building Ann Arbor, MI 48109-2104 734-615-4970 <a href="mailto:pozzisa@umich.edu">pozzisa@umich.edu</a></p>
<p><b>MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY</b> Carlos H. Castano, Ph.D. Nuclear Engineering Program 1870 Miner Circle Rolla, MO 65409 573-341-6766 <a href="mailto:castanoc@mst.edu">castanoc@mst.edu</a></p>	<p><b>UNIVERSITY OF MISSOURI, COLUMBIA</b> J. David Robertson, Ph.D. Department of Chemistry 125 Chemistry Building Columbia, MO 65211 573-882-2240 <a href="mailto:RobertsonJo@missouri.edu">RobertsonJo@missouri.edu</a></p>
<p><b>NORTH CAROLINA STATE UNIVERSITY</b> John Mattingly, Ph.D. Department of Nuclear Engineering 2148 Burlington Nuclear Laboratory 2500 Stinson Drive Raleigh, North Carolina 27695-7909 919-515-0224 <a href="mailto:john_mattingly@ncsu.edu">john_mattingly@ncsu.edu</a></p>	<p><b>OREGON STATE UNIVERSITY</b> Kathryn A. Higley, Ph.D. Department of Nuclear Engineering &amp; Radiation Health Physics 100 Radiation Center Corvallis, OR 97331-5902 541-737-0675 <a href="mailto:kathryn.higley@oregonstate.edu">kathryn.higley@oregonstate.edu</a></p>
<p><b>PENNSYLVANIA STATE UNIVERSITY</b> Kenan Unlu, Ph.D. Radiation Science and Engineering Center 101 Breazeale Nuclear Reactor University Park, PA 16802 814-865-6351 <a href="mailto:k-unlu@psu.edu">k-unlu@psu.edu</a></p>	<p><b>TEXAS A&amp;M UNIVERSITY</b> William S. Charlton, Ph.D. Nuclear Engineering Department 3473 TAMU College Station, TX 77843-3473 979-845-7092 Email: <a href="mailto:wcharlton@tamu.edu">wcharlton@tamu.edu</a></p>
<p><b>UNIVERSITY OF TENNESSEE</b> Howard Hall, Ph.D. Department of Nuclear Engineering 215 Pasqua Engineering Building Knoxville, TN 37996-2366 865-974-2525 <a href="mailto:Howard.hall@utk.edu">Howard.hall@utk.edu</a></p>	<p><b>UNIVERSITY OF TEXAS</b> Sheldon Landsberger, Ph.D. Nuclear and Radiation Engineering Program Nuclear Engineering Teaching Lab Pickle Research Campus, R-9000 Austin, Texas 78712 512-232-2467 <a href="mailto:s.landsberger@mail.utexas.edu">s.landsberger@mail.utexas.edu</a></p>

NUCLEAR NONPROLIFERATION INTERNATIONAL SAFEGUARDS FELLOWSHIP PROGRAM  
*PARTICIPATING PRACTICUM CENTERS AND COORDINATORS*

<p><b>ARGONNE NATIONAL LABORATORY</b>          J'Tia Taylor          Argonne National Laboratory          9700 S. Cass Avenue, Building          Argonne, IL 60439          630-252-1446  <a href="mailto:jptaylor@anl.gov">jptaylor@anl.gov</a>  <a href="http://www.anl.gov">www.anl.gov</a></p>	<p><b>BROOKHAVEN NATIONAL LABORATORY</b>          Susan Pepper          Brookhaven National Laboratory          MS 197c          Upton, NY 11973-5000          631-344-5979  <a href="mailto:pepper@bnl.gov">pepper@bnl.gov</a>  <a href="http://www.bnl.gov">www.bnl.gov</a></p>
<p><b>IDAHO NATIONAL LABORATORY</b>          Sean Morrell          Idaho National Laboratory          PO Box 1625          Idaho Falls, ID 83415-3740          208-526-2431  <a href="mailto:sean.morrell@inl.gov">sean.morrell@inl.gov</a>  <a href="http://www.inl.gov">www.inl.gov</a></p>	<p><b>LOS ALAMOS NATIONAL LABORATORY</b>          Brian Boyer          Los Alamos National Laboratory          PO Box 1663, Mail Stop C921          TA-16, Building 200, Room 217          Los Alamos, NM 87545          505-606-2368  <a href="mailto:bboyer@lanl.gov">bboyer@lanl.gov</a>  <a href="http://www.lanl.gov">www.lanl.gov</a></p>
<p><b>LAWRENCE LIVERMORE NATIONAL LABORATORY</b>          Bill Moore          Lawrence Livermore National Laboratory          Mail Stop L-090          7000 East Avenue, PO Box 808          Livermore, CA 94551          925-424-2112  <a href="mailto:moore125@llnl.gov">moore125@llnl.gov</a>  <a href="http://www.llnl.gov">www.llnl.gov</a></p>	<p><b>OAK RIDGE NATIONAL LABORATORY</b>          Michael Whitaker          Oak Ridge National Laboratory          PO Box 2008          MS 6315          Oak Ridge, TN 37831-6315          865-576-1682  <a href="mailto:whitakerjm@ornl.gov">whitakerjm@ornl.gov</a>  <a href="http://www.ornl.gov">www.ornl.gov</a></p>
<p><b>PACIFIC NORTHWEST NATIONAL LABORATORY</b>          Roberta Burbank          Pacific Northwest National Laboratory          902 Battelle Boulevard          PO Box 999, MSIN K8-50          Richland, WA 99352          509-372-4002  <a href="mailto:Roberta.Burbank@pnnl.gov">Roberta.Burbank@pnnl.gov</a>  <a href="http://www.pnnl.gov">www.pnnl.gov</a></p>	<p><b>SANDIA NATIONAL LABORATORIES</b>          Dianna Blair          Sandia National Laboratories          PO Box 5800          Albuquerque, NM 87185-1371          505-845-8800  <a href="mailto:DSBlair@sandia.gov">DSBlair@sandia.gov</a>  <a href="http://www.sandia.gov">www.sandia.gov</a></p>
<p><b>SAVANNAH RIVER NATIONAL LABORATORY</b>          Rick Poland          Savannah River National Laboratory          Building 773-A          Aiken, SC 29808          803-725-1998  <a href="mailto:richard.poland@srnl.doe.gov">richard.poland@srnl.doe.gov</a>  <a href="http://www.srnl.doe.gov">www.srnl.doe.gov</a></p>	

NUCLEAR NONPROLIFERATION INTERNATIONAL SAFEGUARDS FELLOWSHIP PROGRAM  
*PARTICIPATING PRACTICUM CENTERS AND COORDINATORS*

**JOINT RESEARCH CENTER, GERMANY**

Klaus Luetzenkirchen, Head of Nuclear Safeguards and Forensics Unit  
European Commission, Joint Research Centre  
Institute for Transuranium Elements  
PO Box 2340  
76125 Karlsruhe, Germany  
Phone: +49-7247-95-1424  
Email: klaus-richard.luetzenkirchen@ec.europa.eu  
<http://itu.jrc.ec.europa.eu>

**JOINT RESEARCH CENTER, ITALY**

Willem Janssens , Head of Unit Nuclear Security  
European Commission Joint Research Centre  
Institute for Transuranium Elements  
Via E. Fermi, 2749  
TP 210 I – 21027, Ispra (VA), Italy  
Phone: +39-0332-78-9939, Mobile: +39-349-761-7411  
Email: willem.janssens@ec.europa.eu  
<http://npns.jrc.ec.europa.eu>

**JÜLICH LABORATORY**

Dr. Irmgard Niemeyer, Head of Nuclear Safeguards  
Institute of Energy and Climate Research  
IEK-6: Nuclear Waste Management and Reactor Safety  
Forschungszentrum Jülich GmbH  
in der Helmholtz-Gemeinschaft ,52425 Jülich, Germany  
Tel.: +49-2461-61-1762  
Fax: +49-2461-61-2450  
Email: i.niemeyer@fz-juelich.de  
[www.fz-juelich.de/iek/iek-6/](http://www.fz-juelich.de/iek/iek-6/)  
[www.treatymonitoring.de](http://www.treatymonitoring.de)

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NUCLEAR NONPROLIFERATION INTERNATIONAL SAFEGUARDS  
GRADUATE FELLOWSHIP PROGRAM  
2014-2015

**A complete application includes:**

1. Application Form (Hand written applications will **not** be accepted)
2. Current Official Transcript of Grades (all undergraduate and graduate transcripts are required and should be sent directly to the Office of Special Programs from the Registrar)
3. Three (3) Reference Forms (enclosed)
4. GRE Scores (Must be sent directly from ETS. Our GRE reporting code is 5949)

Please ensure you have completed all parts of the application and obtained the proper signatures for each section. Please include the fellowship program name on all correspondence. Keep a copy of this application and supporting materials for your files.

All applicants must submit the required information to the MUSC Office by March 3, 2014. It is the applicant's responsibility to ensure the application is complete. MUSC will not process late and/or incomplete applications.

*Forms are located at [www.scuref.org/forms](http://www.scuref.org/forms) under the NNIS tab. Applicants should submit all materials electronically through the SCUREF website. If you are unable to submit the application electronically, you may mail completed application materials to the following address:*

Medical University of South Carolina  
Office of Special Programs, NNIS  
19 Hagood Avenue, HOT 304-H4  
MSC 851  
Charleston, SC 29425-8510

For additional information or assistance, please contact the MUSC Office of Special Programs at (843) 792-0832 or [nhuchet@scuref.org](mailto:nhuchet@scuref.org).

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NUCLEAR NONPROLIFERATION INTERNATIONAL SAFEGUARDS  
GRADUATE FELLOWSHIP PROGRAM  
2014-2015  
APPLICATION FORM

DATA

1. Name: \_\_\_\_\_  
(First) (Middle) (Last)

2. Academic Status: *Please indicate your anticipated academic status as of September 1, 2014.*

- ( ) Entering Graduate Student  
( ) First Year Graduate Student (Enrolled prior to the fall term 2014)  
( ) Returning Graduate Student (Enrolled more than 2 semesters prior to the fall term 2014)

Expected Graduation Dates (mm/yy): \_\_\_\_\_ (Master's)  
\_\_\_\_\_ (Ph.D.)

If you are currently enrolled as a graduate student, please list the university and department:

\_\_\_\_\_

3. If *entering* as a graduate student, please indicate your preference in universities:

1. \_\_\_\_\_  
(Name of University) (Major Area of Study)

2. \_\_\_\_\_  
(Name of University) (Major Area of Study)

3. \_\_\_\_\_  
(Name of University) (Major Area of Study)

EDUCATION INFORMATION

List all previous universities or colleges attended (graduate and undergraduate).

Official transcripts must sent directly from the registrar to complete the application.

4. University Degree Major Award Date

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Undergraduate: GPA \_\_\_\_\_ (based on 4 pt. scale)

6. Graduate: GPA \_\_\_\_\_ (based on 4 pt. scale)

7. GRE Scores: Verbal \_\_\_\_\_ Quantitative \_\_\_\_\_ Writing \_\_\_\_\_

APPLICANT NAME: \_\_\_\_\_

NNIS FELLOWSHIP

BACKGROUND INFORMATION

8. Address: ( ) Home ( ) School (check one)

Street or Box Number: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone Number: \_\_\_\_\_ E-Mail: \_\_\_\_\_

9. Are you a U.S. Citizen? Yes ( ) No ( )

10. Are you a dual citizen? Yes ( ) No ( )

If you are a dual citizen, in which other country do you hold citizenship? \_\_\_\_\_

11. How did you hear about this fellowship ?

\_\_\_\_\_

PREVIOUS NGSF EXPERIENCE

12. If applicable, list any previous participation in NGSF-funded opportunities (i.e. NGSF National Laboratory safeguards internships, NGSF safeguards short courses, or NGSF-sponsored university courses). Include year.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

QUALIFICATIONS

13. Extracurricular Activities

List all technical societies and service organizations. Include offices held. Attach additional page if necessary.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

APPLICANT NAME: \_\_\_\_\_

NNIS FELLOWSHIP

**14. Practical Experience**

List significant work experience gained from time in a laboratory setting or federal agency.

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**15. Academic Awards and Honors**

List significant pre-college, undergraduate, and/or graduate honors and awards and give a brief description of each.

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**16. Employment Records**

List current and/or most recent employment. Give organization name and job title. You may attach a resume.

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**17. References**

You must include references from three persons familiar with your academic preparation and technical capabilities. At least two references should be from faculty members who are familiar with your current academic work. Please have these individuals send official reference forms directly to MUSC. These forms are located at [www.scuref.org/forms](http://www.scuref.org/forms) under the NNIS tab.

APPLICANT NAME: \_\_\_\_\_

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COURSEWORK

18. Previous Courses

List all science, engineering, and mathematics courses that you have completed at all undergraduate and graduate institutions listed in this application. Provide course title and number, hours attempted, and letter grade.

<u>Course Title and Number</u>	<u>Hours</u>	<u>Grade</u>
<i>Example: Nuc 400: Advanced Nuclear and Radiochemistry</i>	4	A

19. Current Courses

<u>Course Title and Number</u>	<u>Hours</u>
<i>Example: Engineering 101</i>	4

20. Planned Courses

List all courses you plan to take prior to September 2014.

<u>Course Title and Number</u>	<u>Hours</u>
<i>Example: Engineering 101</i>	4

APPLICANT NAME: \_\_\_\_\_

NNIS FELLOWSHIP

### 21. Statement on Career Goals and Objectives

In no more than 500 words, provide information on your education plans and career aspirations. Please relate your statement to one or more of the Technical Areas listed on pages two and three of this booklet. This statement is critical to the overall evaluation of your application.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

(In providing this signature, the applicant certifies that the information provided in this application is complete and accurate. The applicant acknowledges that he or she has read the application instructions and agrees to abide by the terms outlined within them. The South Carolina Universities Research and Education Foundation (SCUREF), the Medical University of South Carolina, (MUSC), Office of Special Programs, and the program sponsors have the right to verify all information contained in this application and make reasonable inquiries should any doubts about this application arise. The applicant understands that failure to provide complete, accurate, and truthful information on this application will be grounds to deny or withdraw this application or disarm him or her from the fellowship at any time.)

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 NATIONAL NUCLEAR SECURITY ADMINISTRATION  
 OFFICE OF NONPROLIFERATION AND INTERNATIONAL SECURITY'S  
 NEXT GENERATION SAFEGUARDS INITIATIVE  
 NUCLEAR NONPROLIFERATION INTERNATIONAL SAFEGUARDS  
 GRADUATE FELLOWSHIP PROGRAM  
 2014-2015

REFERENCE FORM

Applicant's First Name Middle Name Last Name

How long and in what association have you known the applicant?

PERSONAL CHARACTERISTICS	Highest 10 %	Highest 20%	Mid Level	Lowest 20%	Lowest 10%	Inadequate Observation
Imagination and Originality of Thought						
Ability to Work with Others						
Leadership Potential						
Independence and Self-reliance						
Growth During Total Period Observed						
Motivation Toward a Productive Career						
Technical Expertise						
Ability to Communicate (Written/Oral)						

Add any descriptive comments that will assist in providing a complete picture of the applicant's character, attitude, abilities, and potential for success to perform on a high level at a college or university. Please comment on the applicant's weak and strong points.

Comments:	
Signature:	Date:
Typed/Printed Name:	Title:
Address:	

*Reference forms, which should be submitted electronically, are located at [www.scuref.org/forms](http://www.scuref.org/forms) under the NNIS tab. If you are unable to submit this form electronically, you may mail this form to the following address:*

*Medical University of South Carolina  
 Office of Special Programs, NNIS  
 19 Hagood Avenue, HOT 304-H4  
 MSC 851  
 Charleston, SC 29425-8510*

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REFERENCE FORM

Applicant's First Name Middle Name Last Name

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REFERENCE FORM

Applicant's First Name	Middle Name	Last Name
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How long and in what association have you known the applicant?

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Comments:
Signature: _____ Date: _____
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