

Opportunity Title: Post-Doctoral Research Opportunity: Scientific Evaluation of Household Energy Technology

Opportunity Reference Code: EPA-ORD-NRMRL-AEMD-2018-03

Organization U.S. Environmental Protection Agency (EPA)

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How to Apply A complete application consists of:

- An application
- Transcripts – [Click here for detailed information about acceptable transcripts](#)
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional references

All documents must be in English or include an official English translation.

If you have questions, send an email to EPArpp@orau.org. Please include the reference code for this opportunity in your email.

Description An ORISE research training opportunity is available with participation in a project to scientifically evaluate household energy technologies for cooking, heating, and lighting.

The research opportunity is available at the U.S. Environmental Protection Agency (EPA), Office of Research and Development (ORD), National Risk Management Research Laboratory (NRMRL). The appointment is with the Air and Energy Management Division (AEMD) in Research Triangle Park (RTP), North Carolina.

ORD NRMRL AEMD helps provide the basis for the formulation of EPA's environmental policies and programs by playing a vital role in the scientific research mission of the Agency. NRMRL/AEMD helps develop and evaluate solutions to environmental problems faced by EPA, local and state agencies, and the public. As the laboratory focused on risk management research, NRMRL/AEMD seeks to provide information and tools that enable the Agency to develop the cost effective and sustainable approaches to protecting human health and the environment. NRMRL/AEMD supports EPA's environmental protection goals by providing direct support to Agency's regulatory and voluntary programs and by developing and evaluating emissions measurement, emissions control, and cost effective risk management strategies. APPCD concentrates efforts in three research areas:

- Stationary sources of air pollutants
- Energy and natural systems
- Distributed sources of air pollutants and buildings

The research participant will conduct research with a team of scientists and engineers on activities that may include (but not be limited to) the following:

- Measuring air pollutant emissions in the laboratory and/or in the field
- Evaluating emissions of gases and particulate matter that affects human



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health

- Evaluating emissions of greenhouse gases and aerosols that affect the environment
- Measuring energy efficiency and fuel use in the laboratory and/or in the field
- Technical capacity building and training in developing countries
- Biomass fuels research
- Combustion research
- Testing protocols and standards development

The research participant will learn specialized air pollutant emissions measurement techniques, analyses of experimental data, and effective presentation of results. The research participant will be mentored in data interpretation, presentation, organization, and communication of scientific findings. The research participant will expand their knowledge interacting with a diverse group of researchers on interdisciplinary cross-cutting scientific issues related to indoor environmental quality, sustainability, and risk management in the household energy sector. The research participant will have latitude in exercising independent initiative and judgment in the research commensurate with the level of training.

The research participant may present their research at scientific meetings, authoring publications, and collaborating with a diverse and distinguished group of scientists and engineers with EPA and with many U.S. and international partners. EPA has well established relationships with many partners in the household energy sector. EPA led the Partnership for Clean Indoor Air (PCIA) from 2002 to 2010. PCIA integrated with the Global Alliance for Clean Cookstoves (the Alliance) when it was launched in 2010, and EPA is an active partner in many ongoing Alliance activities. EPA is conducting ongoing research with laboratory evaluations of cookstoves, and is working with domestic and international partners in field testing, developing standards for stoves, and building capacity in developing countries for evaluating and advancing household energy technology.

This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and EPA. The initial appointment is for one year, but may be renewed upon recommendation of EPA and is contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. The appointment is full-time. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits.

The mentor for this project is James Jetter (jetter.jim@epa.gov). The anticipated start date for the appointment is October 1, 2018.

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Qualifications Applicants must have received a Ph.D. or equivalent doctoral degree from a STEM (science, technology, engineering, and math) field within five years of the desired starting date or completion of all requirements for the degree should be expected prior to the starting date. A STEM field may include environmental, chemical, or mechanical engineering; physics; chemistry; environmental science; or a related field.

Applicants must possess fundamental knowledge of environmental science or engineering, environmental monitoring, air pollutant emissions characterization, and air quality research.

Applicants are preferred with specialized training or experience as follows:

- Direct experience in research on the technical evaluation of household energy technologies for cooking, heating, and lighting
- Experience in measuring air pollutant emissions from combustion sources
- Experience analyzing efficiency and emissions data for health and environmental implications
- Experience with biomass fuels research
- Experience working in developing countries
- Ability to integrate science, engineering, and social science research
- Ability to write and publish scientific articles demonstrated by publication record

- Eligibility Requirements**
- **Degree:** Doctoral Degree received within the last 60 month(s).
 - **Academic Level(s):** Postdoctoral.
 - **Discipline(s):**
 - **Chemistry and Materials Sciences** ([8](#) )
 - **Communications and Graphics Design** ([1](#) )
 - **Computer, Information, and Data Sciences** ([4](#) )
 - **Earth and Geosciences** ([2](#) )
 - **Engineering** ([5](#) )
 - **Environmental and Marine Sciences** ([1](#) )
 - **Life Health and Medical Sciences** ([1](#) )
 - **Mathematics and Statistics** ([2](#) )
 - **Physics** ([1](#) )