**Opportunity Title:** Investigating Exposure Biomarkers of Nanoparticles in Aquatic Species

**Opportunity Reference Code:** EPA-ORD-NERL-EMMD-2018-07

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| **Organization** | U.S. Environmental Protection Agency (EPA) |
| **Reference Code** | EPA-ORD-NERL-EMMD-2018-07 |

**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 opportunity is available at the US Environmental Protection Agency (EPA), in Athens, Georgia.

The National Exposure Research Laboratory (NERL) is responsible for conducting studies on the exposure of ecosystems to made-man chemicals and other environmental stressors.  Currently, NERL is developing methodologies to measure and model the transport and fate of engineered nanomaterials (ENMs) in the environment.  As a part of this effort, the Ecosystems Research Division (ERD) is developing approaches to characterize the physical and chemical properties of ENMs and the processes that govern ecosystem exposure to ENMs released into the environment.  Furthermore, ERD is coupling these characterization efforts with exposure studies in ecologically relevant species.

Research participant activities may include:

- participating on a multi-disciplinary research team
- performing laboratory analysis to support the research project of characterizing the fate and transport of carbon-based nanoparticles in the environment and conduct in vitro exposures with these compounds
- running biological samples on laboratory instrumentation such as GC/MS and LC/MS, as well as analyzing exposure matrices for xenobiotics such as polyaromatic hydrocarbons (PAHs).

The research participant will gain knowledge and skills from a multi-disciplinary team of internationally recognized scientists.  This research opportunity will provide training in operating state-of-the-art scientific equipment.  Under the guidance of the Mentor, the research participant will be exposed to the world of quality assurance, creating and maintaining careful and accurate records in a laboratory notebook.  The research participant may also have the opportunity to travel to a national meeting to present their research project results.

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This program, administered by ORAU through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education, 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 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 part-time (20 hours per week) at EPA in the Athens, Georgia, area. 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 Matt Henderson (henderson.matt@epa.gov). The anticipated start date for the appointment is October 15, 2018.

**Qualifications**

Currently pursuing undergraduate degree in chemistry, biochemistry, environmental sciences, or a biological science with an environmental focus.

Laboratory experience and basic laboratory safety knowledge are a plus.

**Eligibility Requirements**

- **Degree:** Currently pursuing a Bachelor's Degree.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (3 👁)
  - **Environmental and Marine Sciences** (13 👁)
  - **Life Health and Medical Sciences** (45 👁)
  - **Science & Engineering-related** (1 👁)