

**Opportunity Title:** Measuring Stress Hormones and Neurotransmitters in Zebrafish

**Opportunity Reference Code:** EPA-ORD-NHEERL-ISTD-2018-01

**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.

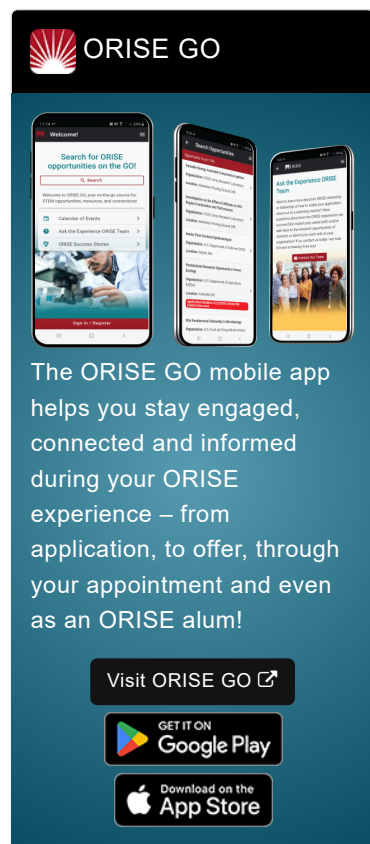
If you have questions, send an email to [EPArpp@orau.org](mailto:EPArpp@orau.org) . Please include the reference code for this opportunity in your email.

**Description** A postdoctoral research training opportunity is currently available at the U.S. Environmental Protection Agency's (EPA) Office of Research and Development (ORD)/National Health and Environmental Effects Research Laboratory (NHEERL). The appointment will be served with the Integrated Systems Toxicology Division (ISTD) in Research Triangle Park, North Carolina. The Division uses a variety of approaches to study toxicity of environmental pollutants, including animal models like zebrafish.

The goal of this research project is to measure levels of stress hormones and neurotransmitters in colonized and microbe-free zebrafish using analytical chemistry methods in order to test the hypothesis that microbial colonization is required for normal nervous system development. The research participant will be involved in the following activities: (1) study design and coordination; (2) axenic derivations; (3) chemical exposures, (3) assay endpoint evaluations; (4) presentation of data at professional meetings; and (5) writing manuscripts for publication in peer-reviewed journals.

The participant will learn about zebrafish husbandry and development, toxicology, neurochemistry, data handling and statistical analyses, and how to participate in a research team. He/she will interact with a diverse community of research scientists at EPA and collaborating institutions. The research participant will be mentored in research project development, execution, data analyses, and scientific writing. The research participant will have opportunities to attend scientific seminars at EPA, NIH, NTP, and local universities. The research participant will have the opportunity to publish in peer-reviewed journals and to present research results at local and national meetings.

The appointment is full time for one year and may be renewed upon recommendation of EPA and contingent on the availability of funds. The



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participant will receive a monthly stipend. Funding may be made available to reimburse the participant's travel expenses to present the results of his/her research at scientific conferences. No funding will be made available to cover travel costs for pre-appointment visits, relocation costs, tuition and fees, or participant's health insurance. The participant must show proof of health and medical insurance. **The participant does not become an EPA employee.**

The mentor for this project is Tamara Tal ([tal.tamara@epa.gov](mailto:tal.tamara@epa.gov)). The desired start date for this appointment is February 12, 2018.

**Qualifications** Applicants should have received a doctoral degree in biology, bioinformatics, cellular and molecular biology, computational biology, genetics, microbiology, physiology or toxicology within five years of the appointment start date, or completion of all the requirements for the degree should be expected prior to the starting date. Experience with basic lab technique, with computational approaches for 16S, targeted sequencing and/or RNAseq datasets, and familiarity with sterile technique and/or use of the zebrafish model are desired.

- Eligibility**
- **Citizenship:** LPR or U.S. Citizen
- Requirements**
- **Degree:** Doctoral Degree received within the last 60 month(s).
  - **Discipline(s):**
    - **Life Health and Medical Sciences** ([10](#) )