Research Opportunity in the Hydro-Biogeochemistry Group at University of Washington

The Neumann Lab is seeking a research assistant to participate in an exciting project investigating the fine-scale dynamics of methylmercury production in soil surrounding rice roots (i.e., the rice rhizosphere). Methylmercury (MeHg) is a bioaccumulative and neurotoxic chemical. Methylmercury production in the rhizosphere affects MeHg concentrations in rice grain, and thus impacts human health. The goal of the project is to gain knowledge needed to inform agricultural strategies that minimize MeHg contamination of rice grain. See the Hydro-biogeochemistry website for more information.

The position will start immediately and be for a period of one year, with the possibility of extension, and will comprise 8-10 hours per week during term time, and 35-40 hours a week in the summer; scheduling will be flexible and can be adjusted around the demands of exams or travel. Work will take place at the Center for Urban Horticulture's greenhouse, and at the Neumann laboratory in the Wilcox building. The research assistant will receive a $15 per hour wage, and will have the opportunity to participate in a cutting-edge research project, to develop laboratory and analysis skills, and to gain experience with technical scientific writing. The research assistant will also have the opportunity to develop oral and visual scientific communication skills.

Duties will include:

- Day-to-day maintenance of rice plants and growth chambers
- Collection of physical, biogeochemical, and plant physiological measurements of plant tissues, soil, and porewater in the greenhouse and the laboratory
- Cleaning, storage, and maintenance of durable laboratory equipment
- Labelling and storage of samples
- Maintenance of scrupulous written records and preparation of weekly reports
- Creation of high-quality standard operating procedure (SOP) documents
- Duties may also include analysis of samples for total organic carbon and/or inorganic anions.
- The research assistant will also help with high-precision collection of soil, porewater, and plant tissue samples, and with shooting video for a science documentary.

The work will include bending, lifting heavy (>50 pounds) items, moving gas canisters, and handling laboratory chemicals. However, the exposure to MeHg will be extremely small and represents no foreseeable hazards to the research assistant, as this project is aimed at understanding the behavior of environmentally-realistic trace levels of MeHg. Experience with laboratory work is highly desirable, as is experience working with plants in a laboratory, home, garden or farm setting. Preference will be given to applicants who demonstrate an ability to create high-quality documentation (notes, instructions, videos) that will allow them to perform their duties with very minimal supervision. Experience working with Li-cor instruments, collection of anoxic soil and porewater samples, use of a Sievers TOC analyser, ion chromatography, or videography would be an advantage.

To apply, please submit a cover letter briefly describing your interest in the position and qualifications, a CV or resume, and contact information for three references to Dr. Rachel Strickman at strickman@uw.edu, copying Dr. Rebecca Neumann at rbneum@uw.edu. Questions may be directed to Dr. Strickman.