Postdoc or Research Staff Opportunity

Dr. Amy Pickering invites applications for a postdoctoral or research staff position based in the Department of Civil and Environmental Engineering in the Tufts School of Engineering in the Boston area (Medford, MA). The position will be focused on using metagenomics to study environmental and zoonotic transmission of antibiotic resistant bacteria in low-income countries.

The following are current projects in the Pickering lab that the successful candidate would have the opportunity to become involved in:

- Developing and field-testing a novel surveillance platform for monitoring antibiotic resistance genes in environmental waters using long-read, portable genomic sequencing (Nanopore sequencing).
- Evaluating the potential for low-cost, scalable water treatment interventions to disrupt antibiotic resistant enteric infections in young children in Bangladesh.
- Mapping zoonotic transmission of antibiotic resistant bacteria in urban and rural communities in Bangladesh.

Required qualifications:

- Experience analyzing and visualizing metagenomics data
- In-depth experience with Python and R
- Able to set up bioinformatics workflows to process and analyze short read (e.g. Illumina) sequencing data
- Experience with sequence alignment and mapping tools (e.g. Kraken, Megan)
- Fundamental understanding of molecular biology
- Research interest in global health, environmental surveillance, and antibiotic resistance

Technical expertise in the following would also be an advantage:

- Experience analyzing long-read sequencing data
- Laboratory molecular methods to analyze biomedical and environmental samples (e.g. DNA extraction, qPCR, digital droplet PCR)

Benefits include a salary commensurate with level of experience and healthcare benefits. The position is immediately available, however, the start date is negotiable. Please apply before August 31, 2018 for full consideration. To apply, send the following items as a single pdf directly to amy.pickering@tufts.edu, with the subject line "bioinformatics position":

1. Cover letter
2. Current CV
3. Writing sample (e.g. dissertation, peer-reviewed manuscript)
4. Contact information for three references