

PHYSICAL & ENVIRONMENTAL SCIENCES

Postdoctoral position in microbial fitness and function across environments

The Microbiome Manipulation Lab at the University of Toronto – Scarborough (https://www.utsc.utoronto.ca/labs/microbiomemanipulationlab/) seeks a postdoctoral associate to address tradeoffs between the production, storage, and in-soil application of candidate probiotics for agriculture. The selected candidate will work within a large multi-institute project, including both academic and industry partners, which aims to develop new and efficient processes for selecting and breeding agricultural probiotics as alternatives to chemical fertilizer inputs.

In this project, the selected candidate will assess links between bacterial taxonomy, in-lab growth, low resource tolerance, and in-soil survival and performance. We will also assess trait flexibility using experimental evolution approaches, as well as microbe-microbe interactions, both in culture-based growth environments and in soils post-addition.

This project requires us to meet consistent performance and reporting deadlines, but there will be substantial opportunity for the candidate to explore their own ideas and develop an independent research program. There will also be opportunities to collaborate with other members of our group, other groups at UTSC, and other research groups within our network, and to pursue various professional development activities. Our lab is committed to equity, diversity, and inclusion and I encourage applications from candidates of all backgrounds. Holistic review is used to assess the unique strengths of each applicant.

Primary duties and responsibilities

- Perform the research described for our portion of this collaborative project, while adhering to performance timelines
- Contribute to quarterly reporting
- Exchange data, materials, and ideas with collaborating institutes
- Generate and explore independent ideas related to the goals of the project/research group

Preferred qualifications

- PhD in a field relevant to environmental microbiology
- Experience with research in microbiology/microbial evolution/microbial ecology
- Experience in one or more of the following: bacterial cultivation; in-lab bacterial growth assays; meta-omics analysis
- Publications in peer-reviewed journals
- Skills in organization, time management, and adherence to timelines
- Collaborative research experience

To apply

Funds to support this position are expected to be released in Fall 2023, so an ideal start date would be ~October 2023; however, this can be negotiated based on the needs of the selected candidate. Please forward 1) a **cover letter** that addresses fit to the position and how the position could help the candidate move towards their career goals, 2) a **complete CV**, and 3) contact information for **three professional references** to <u>terrence.bell@utoronto.ca</u>. I will consider applications as they are received, but encourage applicants to **submit before May 31, 2023** to ensure full consideration.