School of the Environment
UNIVERSITY OF TORONTO

Post-doctoral Fellow Positions: Earth Commission Novel Entities Group
March 2024

Area of Research and Description of Duties

In collaboration with the Earth Commission, the University of Toronto School of the Environment is excited to announce opportunities two Post-doctoral Fellows (PDFs) to join the core research team focussed on assessing "Safe and Just Earth System Boundaries" for Novel Entities (ESBs).

The following are the areas that will be addressed by the PDFs, with exact subject areas to be divided by the two PDFs based on expertise and interest of each candidate:

- Scan of methods that could be used to determine ESBs for a subset of novel entities. The methods that could be used include material flow analysis, life cycle assessment and other types of impact assessment methods.
- Undertake "horizon scanning" of the literature to document present and future novel entities that are or could transgress either a Safe or Just ESB. This scan will add the broad context to the case studies of specific novel entities.
- Undertake case studies of several specific novel entities to develop Safe (biophysically-based) and Just (according to interspecies, intra-societal and intergenerational equity) ESBs.
- Consider transformation pathways that moves society from our current situation to within safe and just ESBs. This analysis could consider novel entities in broad categories and could also focus in on the case studies undertaken for the ESB evaluation.

Qualifications

The candidates will have either graduated with their PhD or be close to graduation, with demonstrated experience in multidisciplinary research. One candidate will be expert in biophysical/engineering aspects of novel entities, including but not constrained to fields of environmental chemistry and environmental and/or chemical engineering. The other candidate will be expert in areas of governance and sustainability transformations, including but not constrained to the fields of environmental science or studies, political economy. Both candidates will need to be attentive to issues of equity and how equity can be brought about.

About the Project

The Earth Commission's international project focuses on updating the Safe and Just Earth system boundaries for a sustainable future for all. It builds on foundational work by Rockström et al. about planetary boundaries, Earth system boundaries and recently Diamond and others who have explored the planetary boundary for chemical pollution. The goal of this specific project is to advance the current understanding and implementation of strategies to stay within the Safe and Just Earth System Boundaries for novel entities, including chemical pollution.

Details of the Position

Funding is available for at least 2 years at an annual net salary of $60,000 CAN commensurate with experience. The normal hours of work are 40 hours per week for a fulltime postdoctoral fellow (pro-rated for those holding a partial appointment) recognizing that the needs of the employee's research and training and the needs of the supervisor's research program may require flexibility in the performance of the employee's duties and hours of work. You will be supervised jointly by Professor Miriam L. Diamond (School of the Environment and Dept of Earth Sciences, University of Toronto) and Dr. Zhanyun Wang (EMPA, Switzerland). Start date is flexible but sooner than later is preferred.

Employment as a Postdoctoral Fellow at the University of Toronto is covered by the terms of the CUPE 3902 Unit 5 Collective Agreement.

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The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from racialized persons/persons of colour, women, Indigenous / Aboriginal People of North America, persons with disabilities, LGBTQ2S+ persons, and others who may contribute to the further diversification of ideas.

How to Apply

Interested candidates are invited to submit their full CV, a cover letter describing their interest in the position and how their background aligns with the project's goals, and examples of their published work. You must list three referees who can provide an arm's length assessment of your professional expertise and performance. Please send your application to miriam.diamond@utoronto.ca Consideration of applications will close when the positions are filled.