POST-DOCTORAL FELLOWSHIP IN SUSTAINABLE ANTI-BIOFOULING TECHNOLOGIES

- **Are you passionate about developing sustainable solutions to environmental challenges in trillion-dollar ocean industries?**

- **Are you interested in developing interdisciplinary skills in collaboration with experts from industry and academia?**

Memorial University of Newfoundland-Grenfell Campus and St. Francis Xavier University, through funding from the Ocean Frontier Institute (OFI), Mitacs and industrial collaborator Graphite Innovation and Technologies (GIT), are recruiting a Post-Doctoral Fellow to develop cutting edge anti-biofouling technologies for ocean industries in Atlantic Canada.

Biofouling often leads to unwanted growth of organisms (biofilms, algae, barnacles, mussels, etc.) on marine infrastructure such as docks, ship hulls and submerged pipelines. It has tremendous environmental and economic impacts through increased fuel costs and greenhouse gas emissions, biocorrosion and increased maintenance, and inadvertent transport of invasive species, biocorrosion. Current solutions include biocidal or fouling release coatings, which although effective, have drawbacks. They either release biocides that have long-term toxicity impacts in the marine ecosystem or have reduced durability and are prone to mechanical damage. Our goal is to combine these two approaches into hybrid coatings with neither drawback.

The Post-Doctoral Fellow will work to design and characterize novel marine coatings based on low-toxicity antifouling and fouling-release mechanisms, scaffolding from the graphene-based coatings pioneered by Graphene Innovation & Technologies. The post-doc will work with a diverse team in both academic and industrial labs, have access to world-class equipment and infrastructure, and will gain interdisciplinary, industry-relevant skills as part of the multi-institutional research network. The candidate will also study the fundamental elements of biofouling growth on the engineered surfaces and collaborate with others in our testing performance in both static and dynamic conditions. Note: the primary workplace for this position will be at the premises of GIT, in Dartmouth, Nova Scotia.

Equity, Diversity, and Inclusion Statement

The research team is committed to minimizing barriers to participation by all candidates, while maintaining a safe and productive work environment. Examples include flexible work schedules for parents or caregivers, assistive technologies for those with accessibility needs, adjusting research locations to match home locations, etc. The team is also committed to supporting the professional development of the candidate, providing parallel support for technical, academic and professional improvement alongside focused work on the research project.

We invite applications from all eligible applicants, including women, visible minorities, transgender individuals, and those with disabilities. Preference will be given to Canadian citizens or permanent residents.

General Qualifications

- Candidates must have completed a relevant PhD degree. Our preference is for materials science or chemistry, although biology or toxicology degree holders will also be considered.
- Experience formulating paints and coatings or polymeric materials, with emphasis on antifouling.
- Experience with chemical and physical characterization.
- Experience with measuring biofilms, biofouling and or toxicity.
- Successful candidates will have a strong research record and relevant experience in scientific methodology, experimentation and communication.
- Record of peer-reviewed publications and patents. Publications in coatings development are an asset. Where work is attributed to multiple authors, candidates must indicate their specific contributions.
- All work will be performed in English and candidates should have a good command of speaking, listening, reading, and writing in English.

Salary

$62,000/year for two years plus standard federal benefits. Extensions possible, pending funding applications.

Eligibility

Please verify eligibility here.

Submitting the Application

Please submit applications to Tracey Woodhouse <ogen@ofi.ca> by **15 March 2023.**
Applications should include:

- Cover letter
- Curriculum vitae detailing relevant research and work experience
- A writing sample (e.g., published paper)
- A statement of interest indicating your interest in the project
- Names of two references who can comment on your research abilities