

## Seeking MSc student in fish genetics @ UNB Saint John

Atlantic cod have interesting features of their genome called chromosomal inversions. Inversions are a type of large-scale mutation that occurs when a section of the genome is flipped over, producing both inverted and non-inverted variants of the chromosome in the population. The inversion does not line up properly with the non-inverted variant during replication, which suppresses the shuffling of alleles (recombination) between variants. This causes the inverted and non-inverted variants to evolve separately, which can produce separate packages of alleles that work well together under specific environmental conditions (i.e. co-adapted gene complexes). For this reason, inversions likely play an important role in adapting to local and rapidly changing environments. In cod, inversions have been linked to migratory behaviour, temperature, and salinity, among other factors.

**We are seeking an MSc student to join the Pavey and Oomen labs to develop and apply methods for studying chromosomal inversions in Atlantic cod.** We especially encourage applications from equity-deserving groups, including members of the Black, Indigenous, visible minority, LGBTQIA2S+, disability, immigrant, and first-generation academic communities.

The [Department of Biological Sciences at UNB Saint John](#) is a collegial, dynamic, and research-intensive group with an emphasis on marine biology. Saint John is a [vibrant port city](#) with a historical core, great nightlife and restaurants, and easy access to [a variety of outdoor activities](#).



**Qualifications:** BSc Undergraduate degree or similar

**Stipend:** Minimum \$21,000 CAD Tax free but minus tuition

**Start date:** September 2024/January 2025

**How to apply:** email [spavey@unb.ca](mailto:spavey@unb.ca) and [rebekah.ooman@unb.ca](mailto:rebekah.ooman@unb.ca)

The Pavey Lab:  
<https://paveylab.com>

The Oomen Lab:  
[www.rebekahoomen.com](http://www.rebekahoomen.com)