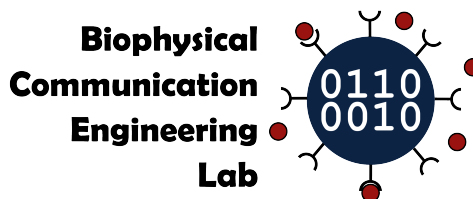




Department of Electrical and Computer Engineering



## Research Employment Opportunity: Open Call for Externally-Funded Students (M.Eng., Ph.D.)

<b>Project Summary</b>	The BioPhysComm Lab seeks to support graduate students who are holding or interested in applying for external funding, such as NSERC scholarships.
<b>Supervisor</b>	Dr. Adam Noel
<b>Degree to be Earned</b>	M.Eng. (thesis-based) or Ph.D.
<b>Funding</b>	Varies according to external funding.
<b>Location</b>	Core Science Facility, Memorial University, St. John's, NL, Canada
<b>Target Start Date</b>	Rolling (according to external funding); typically September, January, or May
<b>Application Components</b>	A complete application should include the following merged into a single PDF: <ul style="list-style-type: none"><li>• Cover letter with a statement of research interests</li><li>• CV summarizing academic and professional experience</li><li>• Copy (unofficial) of academic transcript(s)</li><li>• At least 2 writing samples (e.g., technical report or published paper)</li></ul>
<b>Application Deadline</b>	On-going (according to external funding)
<b>Contact</b>	Email <a href="mailto:adam.noel@mun.ca">adam.noel@mun.ca</a> for additional information

### Project Description

Molecular communication is an emerging interdisciplinary field within communication engineering and inspired by signaling with molecules in nature. Many of our normal biological processes use molecular signaling, and it is also common in biomedical and biological research.

The BioPhysComm Lab has opportunities for prospective graduate students who are interested in research in a number of topics including (but not limited to) cancer, lab-on-chip systems, neurons, biofilms, and more generally any system with molecule transport processes. Our current main focus is on characterizing biosignal propagation and its impact on communication between cells and larger biological entities. We engage in a combination of mathematical, experimental, and simulation modeling, so we welcome prospective students from a range of related interdisciplinary backgrounds.

This specific call is for exceptionally-strong prospective students who are seeking support in applying to external funding schemes such as NSERC Scholarships. Please contact the Group Lead, Dr. Adam Noel ([adam.noel@mun.ca](mailto:adam.noel@mun.ca)), if you are interested.

### Selection Criteria

You must have or be close to completing an undergraduate degree in Engineering (Electrical, Computer, Biomedical, or Mechanical), Science (Physics, Biochemistry, Biology, or Computer Science), or closely-related discipline. A

master's degree is normally needed to be considered for a Ph.D. Exceptional other backgrounds will be considered.

You must meet the admission requirements set forward by the School of Graduate Studies ([mun.ca/become/graduate/](http://mun.ca/become/graduate/)). To be a good candidate for external funding, you will also need a very strong academic profile (i.e., some combination of high course marks, prizes, publication history, extra-curricular record, and a solid research proposal).

We are particularly interested in candidates with a strong background in programming and mathematical modeling. Candidates with a wet lab experimental background are also welcome and may be supported through co-supervision from another department. Generally, familiarity with random processes, fluid transport, and/or cell biology is an asset.

Only candidates selected for an interview will be contacted.

## About the BioPhysComm Lab

The Biophysical Communication Engineering (BioPhysComm) Lab works on biophysical signal propagation, cellular signal processing, and molecular communication engineering.

We're interested in the signalling cues that drive the behaviour of living cells and other microscale processes. We're promoting new ways of understanding how cells use molecules to communicate. Our long-term objective is to use communications and signal processing tools to improve the understanding of biophysical processes and how to interact with them at a microscopic level. More information can be found at [enr.mun.ca/~adamnoel/research.html](http://enr.mun.ca/~adamnoel/research.html).

## About the Department of Electrical and Computer Engineering

Housed in Memorial University's new Core Science Facility, the Department of Electrical and Computer Engineering offers degrees in both electrical engineering and computer engineering at the bachelor's, master's, and doctorate levels. No matter what degree you pursue, we want you to feel inspired. We'll challenge you to do your best. We'll connect you with engineering leaders. And we'll mentor you so you'll understand what's possible and what you need to do to get there. More information can be found at [mun.ca/engineering/ece/](http://mun.ca/engineering/ece/).

## About Memorial

As Newfoundland and Labrador's only university, Memorial has a special obligation to the people of this province. Established as a memorial to the Newfoundlanders who lost their lives on active service during the First World War and subsequent conflicts, Memorial University draws inspiration from these sacrifices of the past as we help to build a better future for our province, our country and our world. More information can be found at [mun.ca/main/about/](http://mun.ca/main/about/).

## Equality, Diversity, and Inclusion Statement

Memorial University is committed to employment equity, diversity, inclusion, and anti-racism, and encourages applications from all qualified candidates, including: women; people of any sexual orientation, gender identity, or gender expression; Indigenous Peoples; visible minorities and racialized people; and people with disabilities. Memorial is committed to providing an inclusive learning and work environment. If there is anything we can do to ensure your full participation during the application process please contact [equity@mun.ca](mailto:equity@mun.ca) directly and we will work with you to make appropriate arrangements. In assessing applications, Memorial recognizes the legitimate impact that leaves (e.g., parental leaves, leave due to illness) can have on a candidate's record of achievement.

## Land Acknowledgement

We acknowledge that the lands on which Memorial University's campuses are situated are in the traditional territories of diverse Indigenous groups, and we acknowledge with respect the diverse histories and cultures of the Beothuk, Mi'kmaq, Innu, and Inuit of this province.