

# The Howell Lab at The Hospital for Sick Children



We are looking for a dynamic, highly motivated team leader to help move our projects from discovery to application. Our lab is located in Toronto, Ontario at The Hospital for Sick Children – Canada’s largest hospital-based child health Research Institute. Our lab (<https://lab.research.sickkids.ca/howell/>) is interested in mechanisms involved in microbial infections. Our group studies exopolysaccharide production in bacteria and fungi, and determines how these molecules contribute to biofilm formation. Our discovery research has identified several hydrolytic enzymes that are effective at low nanomolar concentrations at degrading fungal and bacterial biofilms. The successful candidate will work closely with members of the lab as we move our technology from the lab setting to potential treatments for bacterial and fungal biofilm infections. The successful individual will contribute to our translational project by helping demonstrate proof of concept of our technology in animal models of infection.

## Job responsibilities

- Express and purify protein from bacteria and yeast
- Development new yeast and mammalian expression systems
- Visualize biofilm growth under flow using fluorescence microscopy
- Develop ELISA assay for pharmacokinetic studies
- Assess whether our enzymes potentiate antibiotics
- Develop formulations for the enzymes (e.g. gel/ aerosol)
- Assess and improve stability of enzymes
- Assist in developing strategies for commercialization
- Communicate with collaborators and ship samples as required

## Here’s what you’ll need

- PhD in Biochemistry, Molecular biology, or Microbiology with an additional 5 years experience in a research setting.
- Experience with standard biochemical and molecular biological lab techniques
- Experience with mammalian cell culture, bacterial and yeast protein expression and protein purification is required
- Experience with bacterial genetics will be considered a strong asset
- Experience working with polysaccharides would be beneficial
- Demonstrated competency in written and verbal communications
- Ability to work independently as well as part of a team
- Proven project management experience leading a productive project/team
- Committed to continuous learning and improvement
- High attention to detail
- Excellent organizational skills

## Employment type

Initial contract 2 years (with possibility of renewal)  
Research Associate  
Start date September 1, 2017.

## How to Apply

Submit a single PDF document with your CV and a cover letter containing your research interests and career goals to <http://www.sickkids.ca/CareersVolunteering/careers/index.html> and search for job ID 7731. Review of applications will begin July 7, 2017. Applications will be accepted until the position is filled.