



**Position: Post-Doctoral Fellow
Program in Molecular Medicine**

The Howell lab is looking for a Research Postdoctoral Fellow with a strong background in structural biology. Located at The Hospital for Sick Children – Canada’s largest hospital-based child health research institute – the Howell lab (<https://lab.research.sickkids.ca/howell/>) is interested in mechanisms involved in microbial infections. We study systems involved in biofilm formation from bacteria and fungi, and determine how these systems contribute to biofilm formation and virulence. We utilize microbiology, molecular biology, biochemical and biophysical techniques to study proteins involved in exopolysaccharide production and Type IV pilus assembly. We’re interested how these proteins function in isolation as well as in their relevant protein complexes both *in vitro* and *in vivo*. We are leveraging the insights gained to develop novel enzyme-based therapeutics.

Primary Responsibilities

- Develop and advance your own project. Project will focus on functional characterization of protein complexes involved in exopolysaccharide biosynthesis.
- Express, purify and analyze proteins related to your project, and as required develop new protocols and procedures to advance the project.
- Familiarize yourself with new techniques relevant for your project.
- Proactively share results with PI and team members
- Analyze and present research data at meetings spanning the laboratory and national/international events
- Actively foster a culture that promotes an inclusive, collaborative environment by building strong working relationships with PI, lab members, our collaborators, and other researchers at SickKids.

Here is what you need:

- PhD in biological sciences expected within the next 3-6 months, or received within the last 3 years, e.g., Biochemistry, Molecular Biology, Microbiology, Structural Biology or Chemistry.
- Experience in structural biology essential, e.g., Cryo-EM, X-ray-crystallography, NMR, and/or SAXS
- Experience with *in vitro* biophysical methods to study protein-protein and protein-ligand interactions, e.g. DSF, SPR, BioCore, FRET and/or ITC,
- Experience with standard biochemical and molecular biology lab techniques.
- Solid foundation in computational methods.
- Experience with Linux and/or coding would be beneficial.
- An interest in developing a pipeline for Cryo-EM to capitalize on recent CFI funding
- Minimum of 2 peer reviewed, first author publications submitted, in press or published in established journals

Knowledge, Skills and/or Abilities

- Ability to work as part of and lead a team
- Interested in personal professional development and mentoring others.
- Excellent organizational and strong communication skills.
- Multitask to achieve competitive levels of productivity in data acquisition, analysis, and manuscript composition
- Ability to balance independence and self-reliance with willingness and proactiveness to learn new skills

Employment details

- Full-time contract: 1.0 FTE
- Initial contract for a period of two years with possibility of extension.
- Salary commensurate with experience and includes extended health and dental benefits

How to apply

- Submit a single PDF document with your CV and a cover letter containing your research interests and career goals

Interested Candidates contact Lynne Howell at howell@sickkids.ca