



## **SEEKING: Postdoctoral Researcher in Molecular Biology**

**Overview:** The [Trant Team](#) at the University of Windsor is looking for a postdoctoral researcher (PDR), 1-year renewable indefinitely based on satisfactory performance at \$40,000-\$53,000/year based on experience (with the option of a raise in subsequent years). The candidate must have significant experience (from their doctoral work, industrial career, or previous postdoctoral work) in experimental molecular biological techniques including mammalian and bacterial cell culture, cloning, protein production and purification (ideally from mammalian cells), sequencing, plasmid and primer design, and immunochemistry. Experience with biochemical assay and cell assay development, ADMET and toxicology (both in-cell and in vivo), protein crystallography, bioinformatics (broadly defined) and drug screening/discovery are all highly desirable. **Individuals from under-represented groups are especially encouraged to apply. This includes ethnic, religious, sexual, disability, and gender minorities as well as first-generation university students (those whose parents do not hold university degrees). Individuals who have faced obstacles that have hindered their education and productivity are encouraged to apply and note their challenges in their cover letter:** to get this far, often you will have demonstrated exceptional perseverance and resilience. We see that. And we understand that it cost you time and productivity. We'll take that trade. We are looking for a good colleague with a demonstrated track record of strong problem solving and outstanding teamwork skills: a flashy CV full of top-journal publications is not necessary, please do not self-select out. The must-have requirements below are clearly stated, but beyond that we hire the person, not the CV. The position is expected to start as soon as filled. **THE PRIORITY DATE FOR APPLICATIONS IS May 1<sup>st</sup>**, however the position will remain open until filled. We are looking to fill the position as quickly as possible. If you have come across this ad after that date on any forum other than the Trant Team website, please check the website to determine if we are still hiring for this position ([Join the Team Tab](#)).

**Preference for Canadians and those able to legally work in Canada who are already in Canada:** Unfortunately, due to COVID delays with the Government of Canada, strong preference is given to Canadian Citizens or Permanent Residents, or those with a valid Open Canadian Work Permit. Mexican and American candidates are given preference over other international candidates due to expedited review by the Canadian government. Ukrainian nationals are given special consideration. However, exceptional candidates with outstanding track records that meet the preferred qualities listed above from outside of Canada and the listed nations should still send an inquiry; we can wait for the perfect person.

**About You:** Position is open to individuals holding a PhD in molecular biology, biochemistry or a related discipline. *Time since PhD graduation is irrelevant.* The successful candidate will have doctoral-level expertise in molecular biology. Comfort with cell culture and basic operations necessary to produce protein for biophysical and biochemical assays is absolutely necessary. Experience in biochemical assay and cell assay development, ADMET and toxicology (both in-cell and in vivo), protein crystallography, bioinformatics (broadly defined) and drug screening/discovery are assets. Prior industrial experience is preferred. Other skills, including microbiology, biophysics assay development, synthetic biology, protein/enzyme engineering, peptide synthesis, structural biology, and biomedical engineering are desirable. Individuals will be required to work closely with the synthetic chemistry, analytical chemistry, natural product,

formulation science and computational teams as well as with other molecular, structural, and microbiologists. Previous experience in an interdisciplinary environment, or a **strong interest** in developing this experience will be preferred (and will likely make you happier in the position). A collaborative and team-focused philosophy is also required. All work is in teams, if you prefer to work alone on something, this is not the group for you.

**About the Team:** The Trant Team is located at the University of Windsor and uses synthetic, computational, and medicinal chemistry coupled with molecular and microbiology to discover novel molecules that can be used to address under-examined biological processes and develop innovative diagnostic and therapeutic modalities for diseases. Except when we see something cool in supramolecular, organic mechanism, physical organic chemistry, or molecular or microbiology that distracts us a bit. Then we do that too. The team is actively supported by NSERC, CIHR, the ACS PRF, the New Frontiers Program, the Arthritis Society of Canada and a myriad of other funding agencies and industrial partners (through MITACS, NSERC, and the Ontario Centre of Innovation, and through direct contracts) to provide a very significant operating budget. The lab currently hosts a frankly ridiculous 18 postdoctoral researchers, 16 graduate students, technical and administrative support, and a large team of undergrad researchers. This provides a unique highly multidisciplinary, highly intellectually stimulating environment. John provides extra support and training in project management and grant writing suitable for scientists looking for future leadership positions in industry, government, and/or academia. PDRs are strongly encouraged to collaborate with other members to advance new ideas and build on existing areas of research within the group, broadly spanning medicinal and materials science, small molecule drug design, peptide science, and the interactions of all of the above with biomolecules. They are also encouraged to build new networks outside the group, and to generate teams to accomplish personal and Team research goals. Within reason, and if the core mission is advancing, I am extremely willing to discuss, refine, and support with appropriate financial and personnel resources, ideas and new projects brought to me by team members. It's how we got into supramolecular chemistry, MRI, MOFs, cosmetics, and whisky in the first place. Whisky research. I was already very much into whisky before starting the lab. The team operates a large synthetic chemistry, analytical chemistry, and computational chemistry facility, along with a biochemistry/molecular biology/microbiology/ bioprinting facility. We also have a dedicated Food Lab equipped with a rather large spray dryer and a high pressure homogenizer. This is supported by an in-lab suite of analytical tools to size particles, measure thermal and mechanical properties, and to image them. Departmental and collaboration tools are available. We collaborate extremely closely with cell biology, immunology, structural biology and tissue culture labs as well as with engineers, materials scientists, physicists, translational biologists, clinicians, and other synthetic and medicinal chemists both in Windsor, across the country, and around the world. We think we have more fun than all the other labs. But I think all labs think that. It's just that we are right.

**About the Role:**

The position is not for a specific project. The role is to support graduate students and other postdoctoral fellows and the Team in pursuing a variety of projects. The position is envisioned as one that can evolve into a leadership role in future years. Consequently, although a primary project will be assigned initially, the candidate will be encouraged to get involved in all other molecular biology projects within the group as they become more comfortable and settled, and will also be

increasingly involved in grant, patent, and industrial report writing. The position is expected to evolve into a mentoring role with a significant supervisory component in later years.

**The position will involve undergraduate student mentorship, small team and project leadership, and article writing.** Depending on the career stage of the candidate, the role will also involve graduate student supervision, industrial partner co-ordination, project management, grant writing, patent writing, and short seminar delivery (internal to the group). Training will be provided for any of these roles.

The Trant lab encourages PDRs to pursue their other interests. As available, we will provide support from the other members of the group to develop and refine research ideas of the candidate. We hire for colleagues, not employees. We want you to innovate and pursue your interests.

**About Windsor:** The University of Windsor provides a stimulating and friendly working environment in the Southernmost, and warmest city of Eastern Canada, right next to Lake Erie. The towns of La Salle and Amherstburg, ranked as the safest places to live in Canada, are within a 10 to 20- minute drive. Windsor has the small-town charm but quick access to big-city amenities with the campus less than 10 minutes' drive from downtown Detroit. The cost of living is lower than in comparable University towns in Canada, and the city is located in the middle of a wine-growing region, as well as being the historic centre for both whisky and beer production in Canada with many microdistilleries and microbreweries. The city is 28% foreign-born, making it one of the most culturally diverse cities in the country. This is reflected in both the restaurant and the food retail experience. The city is crisscrossed by recreational trails making an active outdoor lifestyle easy; although we lack hills. It is very flat. Great for biking.

**About John:** He wrote this. Mostly in the third person. The tone should really tell you all you need to know. He's an Assistant Professor without tenure yet (though he didn't forget to file the paperwork this year, so that's good) starting the lab in July 2016 at Windsor. He's published a bunch of papers, filed some patents, received a bunch of grants, and been awarded some certificates for research, teaching and mentorship. He focuses on mentorship, or at least really tries to. Specifics are on the website.

BSc in biopharmaceutical sciences (medicinal chemistry option) from UOttawa in 2006 (Honours thesis with William Ogilvie on organocatalysis and research with Natalie Goto on protein production for NMR structure analysis of membrane proteins); PhD UOttawa in 2012 with Robert Ben (carbohydrate total synthesis and ice recrystallization chemical physics); PDF with Tomas Hudlicky at Brock (total synthesis, methodology, chemoenzymatic synthesis) 2011-2012; PDF with Beth Gillies at Western (chemical engineering, polymer science, nanoparticle stuff, more synthesis) 2013-2016; PDF with Joe Gilroy at Western as a failed inorganic chemist and making nylon (2014-2015). Married with two cats, a dog, and a baby.

**Contact:** Interested individuals, please send a current CV (including contacts of three references) and a cover letter stating your research interest and career plan, and how your skill set matches that of the requirements, to Dr. John Trant at [j.trant@uwindsor.ca](mailto:j.trant@uwindsor.ca) with ONLY the term "Molecular Biology PDRA" in the subject line. Generic emails will not be responded to, nor will incomplete submissions. Competitive candidates will receive a rapid response for additional screening.