Advanced Analytics and Machine Learning for Improved Ophthalmological Outcomes
Limited Term Faculty Position (Assistant Professor)
Departments of Ophthalmology and Medical Biophysics
Schulich School of Medicine and Dentistry, Western University
St. Joseph's Health Care

The Schulich School of Medicine & Dentistry at The University of Western Ontario, in partnership with St. Joseph's Health Care London, invites applications for a new member of faculty specializing in advanced analytics and machine learning for precision medicine, with a focus on the use of high-resolution ophthalmic imaging for improved clinical decision making. The successful candidate will be appointed to a full-time Limited Term position at the rank of Assistant Professor. The position will be for a term of five years, with the possibility of renewal. The successful candidate will be jointly appointed to the Department of Ophthalmology, within St. Joseph's Health Care, and the Department of Medical Biophysics, within the Schulich School of Medicine and Dentistry.

The Schulich School of Medicine & Dentistry fosters an interdisciplinary approach to research and teaching that is enabled by state-of-the-art facilities and a common mission to innovate, integrate and translate breakthrough biomedical and health knowledge research. The Department of Medical Biophysics website describes the broader department's collaborative research-intensive environment, which involves over 80 graduate students and approximately 100 researchers from the University and its affiliated research institutes and hospitals across the city of London. Students and faculty in Medical Biophysics are eligible to participate in multiple Collaborative Specializations, including the Collaborative Specialization in Machine Learning in Health and Biomedical Sciences. This specialization, recognized by the Vector Institute of Artificial Intelligence, provides advanced, practice-oriented graduate training that bridges data science and health research. As an add-on to select participating graduate programs—including Medical Biophysics—the specialization helps attract top-tier students eager to develop and apply AI approaches to complex biomedical challenges.

The Ivey Eye Institute is the largest comprehensive standalone eye institute in Canada, with a high volume of patient care of over 150,000 visits per year across all subspecialty disease areas, including glaucoma, retina, cornea, and oculoplastics. It is also one of the few Canadian Eye Centers that has a dedicated, on-site translational research laboratory. It houses a comprehensive repository of multi-modality imaging data, including routinely captured optical coherence tomography, ultrasound, fundus photography, fluorescein and OCT angiography with functional correlates such as automated perimetry and electroretinography. The successful candidate will be expected to contribute to both the teaching and research mission of the School and Western University in areas such as biophysics, ophthalmology or medical imaging.

Applicants must have a PhD in Computer Science, Biomedical Engineering, Medical Biophysics or a related field. The successful candidate should have an increasing profile of research into the use of advanced imaging analytics for determining ophthalmological health and disease, associations with systemic disease, as well as guidance of clinical decision making. They will be expected to lead an independent, competitive research program in advanced imaging analyses, using extensive state-of-the-art ophthalmologic images, for clinical decision making and precision medicine that will attract excellent trainees, strong external research support, and develop extensive collaborative partnerships across the University and affiliated hospital partners and their respective research institutes. They will be expected to excel in teaching at the undergraduate and graduate level. The position provides excellent opportunities

to expand established collaborations in basic science and clinical departments, including Ophthalmology, Medical Imaging, Medical Biophysics, Computer Science, and Biomedical Engineering.

London, Ontario, has a proud history as a leading destination for research in medical imaging and is home to several state-of-the-art research and core facilities that have been revitalized through recent major investments. These include, but are not limited to: a Western Advanced Microscopy Core and a wide array of state-of-the-art imaging facilities at both Western (Translational Imaging Research Facility, Centre for Functional and Metabolic Mapping) and the Lawson Health Research Institute. A partnership between GE Health Care and St. Joseph's Health Care has established a Centre of Excellence in Molecular Imaging and Theranostics, which houses a Health Canada-licensed Cyclotron and Radiopharmaceutical manufacturing facility, a new PET/CT Omni 2 Legend system with protected research time, and Canada's first PET/MR. For more information on facilities, please visit this link.

Western is one of Canada's leading research-intensive universities, and the Schulich School of Medicine & Dentistry has a long history of excellence in basic biomedical, applied and clinical research. Western has a full range of academic and professional programs for over 37,000 undergraduate and graduate students. The university campus is in London, with a metropolitan census of approximately 530,000, located midway between Toronto and Detroit. London boasts an international airport, galleries, theatre, music and sporting events and is located close to several lakes and facilities for outdoor activities (www.goodmovelondon.ca). Western's Recruitment and Retention Office is available to assist in the transition of successful applicants and their families to the university and city.

Western, like many postsecondary institutions in Canada, is moving beyond sole reliance upon Indigenous self-identification in its hiring processes. This is to safeguard against the use of incorrect, incomplete, or misleading information in circumstances in which a candidate has made a declaration of Indigenous citizenship or membership. Candidates who are invited for an interview or who are short-listed, and who have made a declaration of Indigenous citizenship or membership for material advantage at Western, including where required or preferred for the position, will be asked to have their declaration of Indigenous citizenship or membership affirmed through a relational accountability process, led by the Office of Indigenous Initiatives (OII), that is consistent with Indigenous ways of knowing, being, and doing. Please contact the OII directly for details on the affirmation processes: https://indigenous.uwo.ca/. The policy can be viewed at: POLICY 1.58 - Affirming Declarations of Indigenous Citizenship or Membership at Western University.

This position includes a comprehensive benefits package. Further details can be accessed at: http://www.uwo.ca/hr/benefits/your_benefits/faculty.html. Western's Recruitment and Retention Office is available to assist in the transition of successful applicants and their families.

Applications will be reviewed by a search committee and must include the following:

- A completed regular full-time faculty application form can be found at the following link: https://www.uwo.ca/facultyrelations/pdf/full-time-application-form.pdf.
- A cover letter addressing how your expertise fits this position and complements existing strengths at the Schulich School of Medicine & Dentistry, St. Joseph's Health Care, London and the London Health Sciences Centre.
- A detailed curriculum vitae
- A plan identifying your proposed research program. In your statement, describe how your past contributions connect with your research plan and how your research plan connects to machine learning and improving patient outcomes (up to five pages)
- A statement of your overall teaching and mentoring philosophies. This statement should include descriptions of past formal and informal mentorship experience and plans for mentorship and

training at Western (up to two pages).

- A statement on how your track record and plans create an equitable, diverse, and inclusive environment for research, teaching, and service (up to one page)
- The names and email addresses of 3 academic referees (these will not be contacted until applicant permission has been received).
- Incomplete applications will not be considered.

The application package should be assembled into a **single PDF document** for submission to

Charles A. McKenzie, PhD
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Email: medbio@uwo.ca

Consideration of applications will begin on February 15, 2026 and will continue until the position is filled. The anticipated start date will be July 1, 2026, or as negotiated. Salary for this position will be commensurate with qualifications and experience.

Positions are subject to budget approval. Applicants should have fluent written and oral communications skills in English. The University invites applications from all qualified individuals. Western is committed to employment equity and diversity in the workplace and welcomes applications from women, members of racialized groups, Indigenous peoples, persons with disabilities, persons of any sexual orientation, and persons of any gender identity or gender expression.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents.

Accommodations are available for applicants with disabilities throughout the application and recruitment process. If you require accommodation for interviews or other meetings, please contact medbio@uwo.ca.

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