



## Cloud-based multi-modal advanced analytics platform for ophthalmic imaging

**Position Title:** SOSCIP TalentEdge Postdoctoral Fellowship

**Department:** Robarts Research Institute, Western University

**Remuneration:** \$TBD

**Duration:** 2 years

**Expected Starting Date:** Q1 2018

**Supervisor:** Dr. Ali Khan and Dr. Shelley Boyd

**Location:** Robarts Research Institute, Western University, London with some travel to Toronto (or vice versa based on preference)

We are seeking a post-doctoral fellow for a SOSCIP-funded research project developing an image analytics platform for a novel functional ophthalmic imaging method, used in its first instance to evaluate patients with Age Related Macular Degeneration (AMD) and ocular tumours. The post-doctoral fellow will develop and apply state-of-the-art multi-modal image processing and machine learning techniques towards a cloud-based platform for ophthalmic imaging. This work is based on two approved clinical studies that have generated tens of thousands of images to date. The successful candidate will be employed by Tracery Ophthalmics Inc, in collaboration with academic partner, Western University, supervised by Dr Ali Khan and Dr Shelley Boyd.

Dr Ali Khan is an Assistant Professor in the Department of Medical Biophysics and Medical Imaging at Western University: <http://cfmm.robarts.ca/people/core-scientists/ali-khan-2/>

Dr Shelley Boyd is a Clinician-Scientist and ophthalmologist, specializing in diseases of the retina, St Michael's Hospital, Toronto: <http://www.translatummedicus.com/shelley-boyd-md-frcsc/>

Tracery Ophthalmics inc was awarded top prize in the Johnson & Johnson "AI for Drug Development" Quick Fire competition, December 2017. Tracery uniquely aligns image-based biomarkers with OMICs and *in silico* drug design (with Cyclica inc).

[https://jllabs.jninnovation.com/videos/artificial-intelligence-drug-discovery-quickfire-challenge-winners?utm\\_source=JBrief&utm\\_medium=email&utm\\_campaign=20180103](https://jllabs.jninnovation.com/videos/artificial-intelligence-drug-discovery-quickfire-challenge-winners?utm_source=JBrief&utm_medium=email&utm_campaign=20180103)

Please forward cover letter, CV, and contact information for three references to Michelle Jagdat, jagdatm@smh.ca. Applications will be considered until the position is filled

### Desired Qualifications:

- PhD in Electrical Engineering, Biomedical Engineering, Computer Science, Applied Mathematics, or other relevant areas
- Knowledge of imaging systems, image processing and image analysis
- Experience with software development in Python
- Experience working with computer vision and machine learning algorithms
- Familiar with ITK and VTK libraries, 3D Slicer
- Familiar with containers, cloud architecture, and high-performance computing
- Excellent technical and conversational English skills
- Initiative, dedication, thoroughness, fast learner, ability to work under pressure