

Appointment of Professor and Scientific Director, York Visual Neurophysiology Centre



# Contents

- 03 Introduction
- 04 About York University
- 08 VISTA (Vision: Science to Applications)
- 10 Role and Responsibilities
- 13 The City of Toronto
- 14 How to Apply





# Introduction

#### York University is now seeking a Scientific Director for the current and planned visual neuroscience facilities.

The Scientific Director appointment will last five years (renewable) and will oversee, as Principal Investigator, the \$8.2 million equipment budget component of a planned \$32 million neurophysiology facility. The individual will provide guidance for ongoing laboratory facility planning and development, for recruiting facility staff and relevant faculty, and for coordinating research activities and scientific staff within the facility. This is a Research-Enhanced Faculty position partially funded by the Vision: Science to Application (VISTA) program. The applicant will receive administrative support for their Directorial duties, immediately available lab space, enhanced start-up funding for their own research, additional annual research funds, a reduced undergraduate teaching load, and competitive access to general VISTA research and training funds. This is a university-level search, hence the successful candidate will be affiliated with the Department and Faculty that best suits their research and teaching interests. It is expected that the

The successful candidate will hold a PhD in a neurosciencerelated discipline, must show evidence of outstanding scientific leadership, and have expertise in the design of in vivo neurophysiology research facilities. The applicant will combine leading-edge neurophysiological techniques (such as multi-neuron recording), behavioral recordings, and computational analyses of data from in vivo experimental models of visual function and/or dysfunction in areas such as perception, cognition, sensorimotor integration, or multisensory integration. We particularly encourage candidates who use or develop innovative technologies or methodologies in the area.

person will come in at the Associate or Full Professor level.

The applicant should have an outstanding research record demonstrating scholarly eminence and a proven ability to attract substantial peer-reviewed external research funding, and can train successful graduate students and postdoctoral fellows. This individual will have a global reputation and record of international research collaboration. All VISTA members are expected to engage in transdisciplinary collaborations with other members, as well as other academic/non-academic partners.

VISTA is a world-leading institutional research program, partially funded by the Canada First Research Excellence Fund (CFREF), which focuses on the intersection between biological and computational research. VISTA is located at York University in Toronto Ontario, Canada's third largest university. The candidate will also have access to a research-dedicated MRI suite and substantial facilities for visual psychophysics, human visual neuroscience, and virtual reality in VISTA. The successful candidate will be expected to become a member of York's **Neuroscience Graduate Diploma program** as well as York's renowned **Centre for Vision Research** and other organized research units contributing to the VISTA program.

Home to 52,000 students, York University has an established international reputation as a global, research-intensive university committed to interdisciplinarity, innovation, social justice, equity, and diversity. York has several campuses in the Greater Toronto Area and internationally. Please visit **www.yorku.ca** for additional information about the University.



# About York University

#### Mission

The mission of York University is the pursuit, preservation, and dissemination of knowledge. We promise excellence in research and teaching in pure, applied and professional fields. We test the boundaries and structures of knowledge. We cultivate the critical intellect.

York University is part of Toronto: we are dynamic, metropolitan and multi-cultural. York University is part of Canada: we encourage bilingual study, we value diversity. York University is open to the world: we explore global concerns.

A community of faculty, students, staff, alumni and volunteers committed to academic freedom, social justice, accessible education, and collegial self-governance, York University makes innovation its tradition.

Tentanda Via: The way must be tried.

York University is a vibrant, diverse community of scholars located in the heart of the Greater Toronto Area. York is Canada's third largest university with over 52,000 undergraduate and graduate students including 6,200 international students, 7,000 faculty and staff, more than 300,000 alumni, and a budget in excess of one billion dollars per annum. York has established its reputation worldwide as one of Canada's largest and most multicultural universities. With more than 290 student clubs and organizations, the intellectual, cultural and social life at York is one of the richest in Canada.

## **About York University**

York is home to 11 Faculties:

- The Faculty of Science, noted for cutting edge programs in Biology, Chemistry, Mathematics and Statistics, Physics and Astronomy and Science and Technology Studies.
- The Faculty of Health, dedicated to social responsibility and the education of future global leaders in redefining and advancing health and human science.
- The Schulich School of Business, which is rated among the world's leading business schools.
- Osgoode Hall Law School, Canada's pre-eminent law school and the largest common-law law school in the country.
- The first and largest comprehensive School of Arts, Media, Performance & Design (formerly the Faculty of Fine Arts) in Canada.
- Glendon College, a small bilingual liberal arts college with its own campus.

- The Lassonde School of Engineering, home of the Renaissance Engineer, with programs in engineering, computing, earth & space science, including Canada's first space engineering program.
- The Faculty of Liberal Arts & Professional Studies which offers Canada's most comprehensive range of programs in the social sciences, the humanities and related professional fields.
- An internationally-recognized Faculty of Environmental Studies dedicated to interdisciplinary environmental studies, the first of its kind in Canada when it was created in 1968.
- The Faculty of Education, one of the largest in Ontario and known for its multifaceted and provocative learning experience for pre-service and practicing teachers.
- The Faculty of Graduate Studies, which provides an overarching governance and support structure for graduate studies at the University.



## **About York University**

#### Campuses

Founded in 1959 and located on several campuses, York is a comprehensive university, committed to giving a broad demographic of students access to a research-intensive, high-quality education with diverse experiential learning opportunities in innovative learning environments, unique cross-disciplinary programming, and community-engaged research opportunities. York's primary campus, the Keele Campus, is located in the heart of the Greater Toronto Area. It is the largest post-secondary campus in Canada with most of the University's Faculties residing there. Glendon College, Southern Ontario's only bilingual university campus, is a liberal arts Faculty located in the midtown Toronto neighbourhood of Lawrence Park. York also has two locations in downtown Toronto: The Miles S. Nadal Centre and the Osgoode Professional Development Centre, as well as international locations in India, China and Costa Rica.

#### Student Experience at York University

York offers over 200 degree programs at the undergraduate and graduate levels. Its partnerships with international universities provide opportunities for study abroad, exchanges, research collaborations and community engagement. The University's objective is to introduce students to a broad perspective on the world that results in globally educated citizens equipped to contribute to the 21<sup>st</sup> century knowledge economy and society. A flexible interdisciplinary approach provides students with an outstanding variety of academic opportunities where learning and debate are not only valued, they are encouraged.

In addition to an existing Diploma in Neuroscience, the University is also currently developing an undergraduate Neuroscience degree, which will aim to launch in the coming year.



## About York University

#### **Research Strengths**

York's 11 Faculties and 25 research centres are home to 31 Canada Research Chairs and 41 York Research Chairs in a diverse range of disciplines. Research across these faculties and centres is ambitious, high-impact, international in scope, and marked by a distinctive and collaborative approach to research which cuts across traditional academic boundaries. The research conducted at York University is preparing students for the future, engaged with local and global challenges, and serves to bring fresh insights and solutions to communities and stakeholders around the world.

Excellence and diversity in research is central to York's mission and is fundamental to the University's ability to contribute to the economic, scientific, cultural and social health of our society. York has long-standing research specializations in disciplines including vision research, space science and engineering, atmospheric chemistry, learning technologies and a wide range of critical social innovation and interdisciplinary research projects that help foster vibrant communities. These diverse research strengths, combined with the University's capacity for unique collaborations and synergies, has attracted a rich and diverse group of external partners, including other educational institutions, government agencies, private sector and community groups, who work with us to ensure our research is mobilized for maximum impact on Canada and around the world.

The impact, scope and scale of York's world-leading research is evidenced in its strong positioning globally:

- In 2019 York ranked 26<sup>th</sup> in the world in the THE Impact Rating, which measures an institution's international impact towards building a more socially, economically and environmentally sustainable world.
- The 2018 Shanghai ranking rated York University's School of Kinesiology and Health Science at 24<sup>th</sup> globally and 3<sup>rd</sup> in Canada.
- With 90 full-time tenure-stream faculty, the Department of Psychology is one of the largest in the world and ranked in the Top 100 globally in QS Rankings.

- Biology was the foundational Science program at York University and is one of the University's most well-developed units. Within the Faculty of Science are housed 20 Canada Research Chairs and equivalents.
- York has a long-standing global strength and impact in vision research. With more than 50 partner organizations, 15 Canada Research Chairs and equivalents, 27 core faculty researchers and 34 associate Faculty members (and growing), VISTA is already the 3<sup>rd</sup> largest vision research program in the world.

The University is empowering further growth and development of its research through the strategic research plan **Towards New Heights 2018-2023**. The plan provides a strong aspirational vision for the development and recognition of York's research over the next five years.

To learn more about York University visit the following link: www.yorku.ca/web/index.htm

The President and Vice-Chancellor of York University is Dr. Rhonda Lenton: http://president.yorku.ca/about-us/bio/

The Provost and Vice-President Academic of York University is Dr. Lisa Philipps: http://vpap.info.yorku.ca/ our-team/lisa-philipps/





# VISTA (Vision: Science to Applications)



## Mission

To advance vision science through computational and biological research perspectives, and to produce world-leading applications that generate positive health, societal, technological and economic impacts for Canada and abroad.

## About VISTA

The Vision: Science to Applications (VISTA) program is a York-based partnership between five Academic Faculties (the Faculty of Health; the Faculty of Science; Lassonde School of Engineering; School of the Arts, Media, Performance and Design; Faculty of Liberal Arts & Professional Studies) and over 50 academic, non-profit, and commercial partners, supported in part by a grant from the Canada First Research Excellence Fund (CFREF). Vision is our most important sensory medium for perceiving and interacting with the surrounding world, so vision research has important implications both for human health and for the technologies that we use to extend our abilities. VISTA expands and integrates York's strengths in visual neuroscience, computer vision, arts, and humanities to tackle 21st century challenges and opportunities. VISTA provides access to over 60 York investigators along with their laboratories and research teams. Our seven-year budget of \$120 million supports collaborative research and training through research chairs, grants, scholarships, fellowships, travel awards, conferences, workshops, schools, and the assistance of 13 dedicated research staff.

VISTA also supports knowledge mobilization and commercialization, and provides preferred status for individuals who collaborate with VISTA members. VISTA aims to be the world's premier nexus for transdisciplinary, translational vision research. Ultimately, VISTA will propel Canada's global leadership in the vision science community and help people live healthier, safer and more productive lives.

See: http://vista.info.yorku.ca/ for more details on our members, programs, and research.

## Associated Research Units

The foundation for VISTA is York University's largest, internationally recognized, interdisciplinary group of biological and computational vision scientists led by the Centre for Vision Research (CVR). VISTA integrates the strengths of CVR with five synergistic Institutes and Centres.



#### VISTA (Vision: Science to Applications)

#### **Centre for Vision Research**

The York Centre for Vision Research (CVR) is an international leader in human and machine vision research. Uniting researchers from psychology, computer science and engineering, biology, kinesiology and health science, the work at the Centre is highly interdisciplinary and collaborative, and it is rooted in a fundamental research programme that merges techniques in human psychophysics, visual neuroscience and computational theory. Leading-edge facilities include a 3T fMRI scanner, a six-sided immersive virtual reality room, and a wide array of visuo-robotic platforms.

The CVR is home to a rich history of scientific discovery and technological innovation with real-world consequences. The Centre's vision health research tackles the problems of strokes, migraines, brain disorders, autism and visual deficits in Canada's aging population.

Vision technology application areas include medical and assistive devices, visual security, search-and-rescue, 3D film, and augmented reality systems used in collaboration with NASA and the aerospace industry.

## Sensorium: The Centre for Digital Arts and Technology

Serving as a catalyst for new ideas and experimentation, Sensorium supports cross-disciplinary research in new application and content creation, scientific inquiry, policy development and critical discourse in digital media.

## York U Centre for Aging Research (YU-CARE)

The York University Centre for Aging Research and Education (YU-CARE) aims to promote graceful aging by approaching aging with active and positive responses to changes and challenges throughout the aging process on a societal and individual level.

#### Innovative Computing @ Lassonde

The IC@L is a research unit focusing on the science of computing and its realization to enable novel solutions and technologies. IC@L joins computational scientists with hospitals, industry and government to address the next generation of computational problems.

#### The Institute for Research on Digital Learning

The IRDL has a broad mandate to engage in systematic inquiry, discussion, and information sharing related to the uses of technology in teaching and learning by encouraging the formation of links with faculty members across the university and with schools, government, and industry to provide collaborative, multidisciplinary approaches to research problems and issues.





# Role and Responsibilities

#### **Role Information**

The Scientific Director will report to a board committee chaired by the Vice-President Research and Innovation, as well as reporting to the Dean of their chosen faculty for academic matters.

The Director will serve on the VISTA program leadership committee chaired by the VISTA Scientific Director, act as chair of the facility leadership committee, and reporting to the university level Vivarium User Committee. The Neuroscience Facility is supported by university-funded veterinary staff and VISTA-funded technical support. It will serve both core users with assigned laboratory space and collaborations with various stakeholders within and beyond the York community, including researchers, hospitals, and industry.

The Director will be provided with immediate laboratory space in our existing Neuroscience Facility. The Director will provide primary scientific input into the design of our new \$32 million Facility, in consultation with an existing support team of planners, architects, and facility coordinators. The Director will become principal investigator on a secured \$8.2 million Canada Foundation for Innovation grant for research equipment and infrastructure. The Director will also retain 25 per cent of these funds for their own research program (so long as plans are consistent with the grant goals), with the remainder in service of other users and group facilities, especially for the new Neuroscience Facility. The Director will be provided with administrative assistance for this grant and the building project in addition to receiving enhanced start-up funds and relocation support from the VISTA program, as well as a \$25,000 annual research allowance and reduced teaching load for duration of the Directorship of the VISTA program. The Director will also be appointed as a core member of the VISTA program with full access to all of the partnerships, funding programs, and staff support that this provides.

#### **Role and Responsibilities**

#### **Key Accountabilities**

Key accountabilities include:

#### Leadership

- Bring to life a vision for the Neurophysiology Facility which positions the Centre to make an impact.
- Lead their own internationally renowned program of research in Vision Science that integrated highly qualified personnel of all stages (undergraduate, graduate, postdoctoral).
- Provide leadership and direction to the Centre, including the effective and efficient delivery and measurement of research initiatives and programs.
- As PI, work with other investigators to ensure success of the CFI infrastructure grant project.
- Work with the veterinarian, vivarium supervisor,
  VISTA staff, and university technical supports to ensure veterinary and technical support for the researchers.
- Create a high performing and collaborative work environment through encouragement, support, quality selection, and development.
- Maintain responsibility for overall legal, legislative, regulatory, environmental, animal welfare, and contractual compliance, including the security and operating integrity of the neurophysiology laboratories.
- Lead the research and development initiatives within the Centre to ensure activities are reflective of the University's strategic priorities.
- Act as an advocate for the promotion of science and knowledge transfer through effective stakeholder communications.

#### Strategic Planning

- Provide strategic leadership and stewardship for the Centre in a manner that ensures quality, effective management, sustainability, growth and expansion.
- Develop and communicate the direction for the Facility in a manner consistent with the organization's interests and vision.
- Work with the University, researchers and partners to attract institutional and group funding from external agencies to enhance the research environment.

- Assist the Faculties in arranging laboratory space for new faculty users and collaborators.
- Liaise with a range of internal and external stakeholders to ensure the Facility is in a position to achieve its objectives and strategic direction.
- Maintain productive collaboration with internal and external contacts with respect to VISTA and its programs and operations.

#### **External Relationships**

- Communicate with a range of audiences to promote VISTA and its research.
- Promote strong relationships with the wider York University Faculties, including taking advantage of graduate training, research, and other partnerships opportunities and ensure organizational alignment with York's vision, mission and values, policies, procedures and culture.
- Develop and maintain strong relationships with other Universities and relevant centres across Canada and around the world.
- Enhance the reputation of VISTA through professional representation of the program with funders, clients, collaborators, industry organizations, government agencies, research institutions, scientific community, foundations, private donors, and the public.



#### **Role and Responsibilities**

#### **Position Criteria**

The applicant should have an outstanding research record demonstrating scholarly eminence and a proven ability to attract substantial peer-reviewed external research funding, and can train successful graduate students and postdoctoral fellows. This individual will have a global reputation and record of international research collaboration. We encourage investigators who use experimental models that most closely resemble the human. The applicant will show evidence of technological innovation and leading edge research. The individual may do fundamental research but should have an understanding and appreciation for potential application of the research in clinical and/or industrial settings. To have a VISTA appointment and funding, the applicant must work on the neuroscience of vision or a closely related topic, i.e., multisensory, cognitive, or motor processes that primarily use visual input.

#### Education

• PhD in a neuroscience-related discipline

#### Experience

- Evidence of outstanding scientific leadership outside of one's own laboratory.
- Expertise in the design of in vivo neurophysiology research facilities.
- An outstanding research record demonstrating scholarly eminence.
- Experience administrating the budgets of significant research grants.
- Experience in leading a project that engages partners from a range of diverse sectors and stakeholders.
- A record of innovative research in areas such as, but not limited to: multi-unit recording, wireless neural/behavioral recordings, computational analysis of 'big data', machine learning, optical imaging, molecular biology techniques.

- Experience in leading multidisciplinary committees and teams.
- Demonstrated track record in attracting substantial peer-reviewed external research funding.
- Successful training of graduate students and postdoctoral fellows.
- A record of international research collaboration.

#### **Skills and Personal Qualities**

- Skill in engaging a range of audiences both within and beyond the institution.
- Effective listening and communication skills and the ability to foster enhanced communications across a variety of stakeholders.
- Innovative approach to problem-solving.
- Ability to inspire and bring an optimistic, diplomatic, approachable, and fair style.
- Ability to work collegially with others to establish a clear sense of direction within a complex organization.
- Ability to handle rapid change and stressful situations.
- Appreciation of and ability to foster interdisciplinary and collaborative approaches.
- · Politically astute.
- Highest ethical standards.

#### The Appointment

This individual will be appointed as a full-time tenured professorial position at the Associate Professor or Full Professor level, with a possible consultant or affiliate status possible in advance of the formal start date. The Scientific Director appointment will last five years (renewable), to commence as early as January 1, 2020.



# The City of Toronto

The University's location in Toronto, the cultural centre of Canada and a city of global impact, provides extensive opportunities for faculty, staff and students across the University and Faculty.

- The City of Toronto is the 4<sup>th</sup> largest city in North America and the GTA is the 48<sup>th</sup> largest urban region in the world with over 6.8 million people (2016).
- Toronto and the GTA lead Canada and North America in terms of diversity. Half of the Toronto population were born outside of Canada, half of the people living in Toronto identify as visible minority and censuses indicate over 140 languages are spoken in Toronto.
- The city's life sciences sector employs nearly 30,000 professional and contributes more than \$2 billion to the local economy.

- Toronto is a hub for new ventures and entrepreneurship. It is home to 80 per cent of Canada's largest R&D, law, advertising and high-tech firms; Canada's top accounting and mutual fund firms; and Canada's largest stock exchange.
- In North America it is the 2<sup>nd</sup> largest food production centre, the 3<sup>rd</sup> largest information technology centre, and the 3<sup>rd</sup> largest screen-based arts centre.
- Toronto is ranked 7<sup>th</sup> globally on the EIU Global Livability Survey (2018), and 16<sup>th</sup> according to the Mercer City Brands "Quality of Living" Index 2018.
- In 2015 The Economist selected Toronto as the best city to live in, and among the top 10 safest cities to live in globally.

York University | Appointment of Professor and Scientific Director, York Visual Neurophysiology Centre



# How to Apply

York University is partnering with the executive search firm Perrett Laver on this search. Candidates wishing to apply are asked to provide a cover letter, an up-to-date curriculum vitae, a vision statement for the development of an internationally prominent neuroscience facility, a statement of their own research and teaching interests, and three reprints or preprints. These documents should be compiled into a single pdf file and sent to An Li Xu at AnLi.Xu@perrettlaver.com.

Arrangements should be made for three confidential letters of reference to be submitted to the same email (AnLi.Xu@perrettlaver.com) and addressed to Dr. Rebecca Pillai Riddell, Associate Vice-President Research, Room 509, Kaneff Tower, York University, 4700 Keele Street, Toronto, ON, Canada M3J 1P3. Applications received before July 1, 2019 will be reviewed together at an initial assessment meeting, but further applications will continue to be accepted until the position is filled. We thank all applicants for their interest however, only those selected for an interview will be contacted. York University has a policy on Accommodation in Employment for Persons with Disabilities and is committed to working towards a barrier-free workplace and to expanding the accessibility of the workplace to persons with disabilities. Candidates who require accommodation during the selection process are invited to contact Dr. Rebecca Pillai Riddell, Chair of the Search Committee at (416) 736-2100, Extension 55780.

All York University positions are subject to budgetary approval. York University is an Affirmative Action (AA) employer and strongly values diversity, including gender and sexual diversity, within its community. The AA program, which applies to women, members of visible minorities (racialized groups), Indigenous peoples and persons with disabilities, can be found at www.yorku.ca/acadjobs or by calling the AA office at 416-736-5713. Qualified candidates are encouraged to apply; however, Canadian citizens, permanent residents and Indigenous Peoples in Canada will be given priority.

### How to Apply

Applicants wishing to self-identify as part of York University's Affirmative Action program can do so by downloading, completing and submitting the forms found at: http://acadjobs.info.yorku.ca/. Please select the "Affirmative Action Program Self-Id Forms" tab under which forms pertaining to Work Status Declaration (citizenship) and AA can be found.

For this nomination, we are particularly interested in candidates with diverse backgrounds and especially encourage candidates in equity, diversity and inclusion categories, including members of the four designated groups (women, members of visible minorities (racialized groups), Indigenous peoples and persons with disabilities) to apply. York acknowledges the potential impact that career interruptions (e.g. maternity leave, leave due to illness, etc.) can have on a candidate's record of research achievement. Applicants are encouraged to explain in their application the impact that career interruptions may have had on their record of research achievement; this will be taken into careful consideration during the assessment process. Perrett Laver is a Data Controller and a Data Processor, as defined under the General Data Protection Regulation (GDPR). Any information obtained by our trading divisions is held and processed in accordance with the relevant data protection legislation. The data you provide us with is securely stored on our computerized database and transferred to our clients for the purposes of presenting you as a candidate and/or considering your suitability for a role you have registered interest in.

Our legal basis for much of our data processing activity is 'Legitimate Interests'. You have the right to object to us processing your data in this way. For more information about this, your rights, and our approach to Data Protection and Privacy, please visit our website http://www.perrettlaver.com/information/privacy-policy/







AMERICAS ASIA PACIFIC EMEA

Perrett Laver 555 Burrard Street, Floor 2 Vancouver, BC V7X 1M8 Canada

T:+1 604 340 7004