

WORLD LEADERS in Research

SFI Research Professor of Cognitive Neuroscience & Thomas N. Mitchell Chair of Cognitive Neuroscience (2006)

> School of Psychology and Institute of Neuroscience Trinity College Dublin





Trinity College Dublin

Trinity College Dublin is Ireland's university on the world stage. Recognised for its transformative research and education conducted at the frontiers of disciplines, Trinity is ranked 61st in the world by the QS World University Rankings 2013.

The pursuit of academic excellence through research and scholarship is at the heart of Trinity's academic endeavour. Trinity is known for intellectual rigour, excellence, interdisciplinarity, and research-led teaching. Home to Nobel prize-winners such as scientist Ernest Walton and writer Samuel Beckett, Trinity draws visitors from across the world to its historic campus each year, including to the Book of Kells and Science Gallery which capture the university's connection to both old and new.

Trinity accounts for one-quarter of all spin-out companies from Irish higher education institutions, helping to turn Ireland into an innovation-intensive, high-productivity economy. That culture of innovation and entrepreneurship is a defining characteristic of our campus as we help shape the next generation of job creators and global citizens.

Founded in 1592, Trinity is situated at the nexus of tradition and innovation, offering undergraduate and postgraduate programmes across 24 schools and three faculties: arts, humanities, and social sciences; engineering, mathematics and science; and health sciences.

Spread across 47 acres in Dublin's city centre, Trinity's has a 17,000-strong student body, 3,000 staff and over 100,000 alumni across the world. Of the student body, 16% come from outside Ireland and, of those, 40% are from outside the European Union, making Trinity's campus cosmopolitan and bustling, with a focus on diversity.

Trinity has developed significant strength in a broad range of research areas, including the 21 broadly based multidisciplinary thematic research areas, see www.tcd.ie/ research/themes. Trinity is home to Ireland's first purposebuilt nanoscience research institute, CRANN, housing 150 scientists, technicians and graduate students in specialised laboratory facilities. Meanwhile, the state-of-the-art Trinity Biomedical Sciences Institute is carrying out breakthrough research in areas such as immunology, cancer and medical devices. Trinity College Institute of Neuroscience (TCIN) leads brain research in Ireland and is the country's only dedicated neuroscience research institute. TCIN is an interdisciplinary research institute with Principal Investigators from a wide range of disciplines including psychology, physiology, biochemistry, engineering, psychiatry and genetics.

The Old Library in Trinity is the largest research library in Ireland, with a collection of six million printed items, 500,000 maps, 80,000 electronic journals, and 350,000 electronic books. Some of the world's most famous scholars are graduates of Trinity, including writer Jonathan Swift, dramatist Oscar Wilde, philosopher George Berkeley, and political philosopher theorist Edmund Burke. Three Trinity graduates have become Presidents of Ireland - Douglas Hyde, Mary Robinson and Mary McAleese.



Trinity's Global Rankings

Trinity is:

- Recognised internationally as Ireland's leading university, ranked 61st in the world by the QS World University Rankings 2013 and 18th in Europe.
- 42nd the world and ninth in Europe in terms of Research Performance (Leiden Ranking of World Universities, 2013)
- Ranked in the top 1% of research institutions in the world in 18 fields - an increase of over 150% from 2004 (Thomson Reuters Essential Science Indicators, September 2013)
- Ranked 22nd in the world in terms of International Outlook (Times Higher Education World University Ranking, 2013)

- Ranked in the top 200 world universities in 23 of the 30 disciplines in the 2014 QS World University Rankings by subject including:
 - **Biological Sciences:** in the top 100 universities in the world and the top 35 in Europe
 - **Medicine:** in the top 100 universities in the world and in the top 46 in Europe
 - **Pharmacy and Pharmacology:** in the top 100 universities in the world and in the top 40 in Europe
 - English: 25th in the world, 7th in Europe



Research at Trinity

Two Trinity scientists, Professor Luke O'Neill and Professor Jonathan Coleman, were recently included in the Thomson Reuters Highly Cited Researchers 2014 list. They are ranked among the top 1% most cited for their subject field and year of publication (between 2002 and 2012).

Trinity's research leverages areas of multidisciplinary expertise where the University has critical mass of world-class primary investigation. Trinity's research is across science, engineering, social sciences, medicine and the arts. These research areas address immediate and long-term challenges in society, as well as offering opportunities for economic development. Research is central to the generation of the new disruptive ideas that will underpin future sustainable businesses. The value created by Trinity is critical for Ireland's economic and social development, as well as society globally.

Trinity's research themes are supported by a set of research institutes that provide the infrastructure needed to support multi-disciplinary research as well as engagement with enterprise and social partners working in partnership with Trinity's 24 schools. Built on the foundations of individual excellence, clustering expertise into multi-disciplinary teams, Trinity has a portfolio of research activity presented as 21 themes <u>www.tcd.ie/research/themes</u>, which have scale, resources and the ability to solve large scale research challenges.

Trinity's credentials in research and innovation are strong:

- According to Thomson Reuters Essential Science Indicators, in terms of research impact as measured by citations, Trinity ranks among the world's top 1% of research institutions in 17 STEM and social sciences fields, including immunology, materials science, and molecular biology and genetics;
- Trinity's researchers have made major contributions to global society. Trinity's mathematics gave us quaternions which underpin modern spaceflight while our chemists developed the world's first commercial nicotine patch, in collaboration with Elan Pharmaceuticals;
- Trinity has an outstanding record of publications in high-quality journals and in terms of the impact of its research publications. The University is highly successful at securing research funding, with 1,526 research accounts totaling an annual expenditure of €79.1 million in 2012/2013.
- In the period 2008 to 2013, 70 commercial licenses have been granted to a wide range of companies, and 38 new Trinity campus companies have been formed

to commercialize Trinity's intellectual property. These eight Trinity spin-outs/licensees have attracted almost €60 million in venture capital investment in the past two years.

- In 2008, Trinity created Science Gallery on our Dublin campus, attracting over 1.5 million people to unique exhibitions, from living art experiments to materials science and from the future of the human race to the future of play.
- The Trinity Biomedical Sciences Institute (TBSI) opened in 2011. Among the key highlights so far are:
 - 76 companies working with researchers to develop new products in biomedicine;
 - €36 million raised for interdisciplinary research; and,
 - Three spin-out companies involved in drug discovery and development, and cancer treatment Opsona Therapeutics, Trino Therapeutics and TriMod.

Trinity's Flagship Research Institutes

Trinity's research institutes provide the infrastructure to support multi-disciplinary research, working in partnership with Trinity's faculties and schools <u>www.tcd.ie/research/institutes</u>

Trinity's International Research collaborations



Full details of Trinity's research and innovation strategies as well as international research collaborations are available at:

www.tcd.ie/research www.tcd.ie/innovation www.tcd.ie/research/worldleaders/brochure2014



Research in Ireland

Ireland is a country of 4.5 million people with a global diaspora of 70 million more, which has a significant impact on global affairs in terms of culture, business and research. Over the last decade, Ireland has demonstrated a clear commitment to the development of a knowledge-led economy, in good times and bad, with unprecedented investment on a national level in education, science and technology.

This strategy is based on harnessing its unique international success in attracting foreign direct investment, and ensuring that Ireland remains not just a global hub for manufacturing but also increasingly for research, development and innovation.

Ireland has proven to be the most effective gateway for international businesses into Europe. This small offshore island has successfully become a global economic centre with a truly remarkable cluster of world-leading businesses.

- Nine of the top ten global companies in medical technologies have a high volume manufacturing base here and a growing presence in Research and Development.
- Nine of the top ten global pharmaceutical companies are located in Ireland, with seven out of ten pharmaceutical blockbusters produced here.
- The ICT sector in Ireland attracts global investment with seven of the world's top ten companies operating here. The sector accounts for €50 billion in Irish exports and is continuing to grow.
- Ireland has in recent years become the internet hub for Europe with companies such as Google, Facebook, AOL, PayPal and a host of gaming companies picking Ireland as their European location.

Ireland is a leading location for business and innovation. The country is among the most competitive and successful in attracting foreign direct investment – both from companies which already are established here and new businesses. Indeed Ireland is now using its growing status as a knowledge-based economy to open new doors and avenues for investors. The sharp increase in new Research Development & Innovation (RD&I) projects is proof of success and international confidence in Ireland. Advantages include:

- A politically stable country and respected regulatory regime.
- A thriving RD&I sector, with strong Government support for productive collaboration between industry and academia.
- A strong legal framework for development, exploitation and protection of Intellectual Property rights.
- Strategic location with easy access to the Europe/ Middle East region.
- Excellent IT skills and infrastructure.
- Good telecommunications infrastructure, with state-of-the-art optical networks and international connectivity.
- Strategic clusters of leading global companies in Life Sciences, ICT, Engineering, Services, Digital Media, and Consumer Brands.
- An established reputation as a hub for business process improvement in the region

Ireland's growing international reputation for research excellence is primarily due to research funded by Science Foundation Ireland (www.sfi.ie). SFI has invested over €1,400 million in research at Irish universities over the last decade. This investment, guided solely by international peer review and research excellence, has taken the form of both individual PIs awards and the development of ten Centres for Science, Engineering and Technology. The research investment has led to significant improvements in the quantity and quality of the published output.

Ireland is now ranked in the top 20 countries globally in scientific global rankings and ranks 3rd for immunology and 8th for material science. (Source: Thomson Reuters Essential Science Indicators) The investment has also transformed the competitiveness of Irish universities such as Trinity College Dublin, Ireland's leading university.



Did you know? Ireland is...

- Forbes' Best Country for Business 2013
- First in Europe for completion of higher education. 60% of students go on to higher education.
- Ranked ninth overall (out of 141 countries) in the Global Innovation Index 2012 (Insead).
- Highlighted as one of five up and coming countries in the world to watch for scientific research excellence (Nature)
- In the top 20 countries in scientific global ranking for international scientific citation per paper and higher in specific disciplines
 - o First in Immunology
 - o First in Animal and Dairy
 - o Third in Nanosciences
 - o Fourth in Computer Sciences
 - o Sixth in Materials Sciences

Ireland has a rich history of achievements in Science and Technology and continues to invest in its research and technology capabilities:

- o Robert Boyle Founder of modern chemistry
- o Ernest Walton splits the atom with John Cockcroft
- o Sir William Rowan Hamilton modern maths and gaming
- o George Boole computer logic
- o Sir Francis Beaufort devised the Beaufort wind force scale.

Dublin is ranked as the best city in the world for human capital



SFI Targeted Research Professorships

Trinity College Dublin, in collaboration with Science Foundation Ireland (SFI), wishes to recruit a number of high calibre Research Professors in targeted scientific areas within Biotechnology, Information and Communications Technology (ICT) and Sustainable Energy and Energy Efficiency sectors. Funding of up to €5 million will be provided to successful candidates for a five-year programme of work.

Background

In recognition of the need for Ireland to build capacity in key areas of economic importance, Science Foundation Ireland (SFI) has consulted with Irish universities to identify areas, aligned with national and institutional strategic priorities, where the recruitment of eminent research professors will be targeted. Research Professors with world class research profiles will build on ongoing significant research activities in Ireland, help to foster and develop emerging areas of strategic opportunity and catalyse future expansion in these targeted areas.

To this end, SFI has launched the SFI Targeted Research Professorship Programme 2014 and will provide funding of up to €1M per year for five years (€5 million maximum) in direct costs to each successful applicant to the Programme in selected thematic areas. This funding is perhaps the most generous package available to stellar researchers surpassing ERC advanced grants, which offer a maximum of \in 3.5 million over five years. These SFI grants can also be used by current ERC award holders to supplement their research activities. Potential candidates wishing to apply to the Programme should contact Trinity directly. Submission of full proposals to SFI will be by invitation only, following the submission and evaluation of Expression of Interest phase during which SFI will work closely with the research body.

Science Foundation Ireland (SFI) is the largest funder of scientific research in Ireland. The SFI Research Professorship Programme assists research bodies in the recruitment of world-leading researchers for Professorial Chairs, or similar research leadership positions in targeted scientific areas. The programme may also act as a mechanism to support the recruitment of individuals who possess a strong industry background, as well as directorship roles in established research centres within eligible research bodies in Ireland.





Post Specification

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Summary

Trinity College Dublin is seeking a research leader of international standing to appoint to the position of the the SFI Research Professor of Cognitive Neuroscience who will also be appointed to the Thomas N. Mitchell Chair of Cognitive Neuroscience (2006). This position offers a unique flagship post in Ireland's only dedicated neuroscience institute – Trinity College Institute of Neuroscience (TCIN) and in the School of Psychology, Trinity College Dublin. TCIN is the purpose-built home of 250 researchers with an interdisciplinary focus captured in the maxim 'from molecules to mind', whose facilities include 3T MRI and small bore 7T imaging equipment. TCIN also partners with the Centre for Advanced Medical Imaging (CAMI) at St. James's Hospital and has strong clinical interactions there and at other Trinity partner hospitals.

The successful candidate should be a renowned scientist in cognitive neuroscience and have the energy, drive, and achievements to contribute to the growth of neuroscience, in particular with the application of neuro-imaging to ageing and related processes.



Background to the Post

TCIN has developed a multidisciplinary team of researchers working closely towards a multi-level characterisation of the neural and behavioural processes underlying normal and abnormal behaviour, including age-related and pathological cognitive decline. These include cellular physiologists Professor Michael Rowan, Professor Andrew Harkin and Professor Marina Lynch), psychiatric geneticists (Professor Michael Gill), behavioural neuroscientists (Professor Shane O'Mara and Professor Mani Ramaswami), neuropsychologists (Assistant Professor Arun Bokde, Ussher Assistant Professor Redmond O'Connell, Professor Fiona Newell and Professor Ian Robertson), neurologists/psychiatrists (Professor Brian Lawlor, Professor Orla Hardiman), neural engineers (Professor Richard Reilly and Ussher Assistant Professor Ed Lalor), neuroradiologists (Professor James Meaney at the Centre for Advanced Medical Imaging (CAMI) at St. James's Hospital), among many others in the 250-strong Institute of Neuroscience.

TCIN's objective is to 'understand the brain from molecules to mind.' Human MRI provides the means by which: basic research in animal models at the molecular, cellular and systems neuroscience level can be extended and generalized to the human brain; new treatments for animal models of human neurological and psychiatric diseases can be translated to the human brain; psychological models of human cognitive function can be grounded in neurobiological substrates. TCIN has superb imaging facilities - these are Ireland's only research-only MRI facilities (on campus there are two systems - one is a human 3T; the other is a small-bore system with an effective field strength of 19T); another research-dedicated human 3T is based in St. James's Hospital, Dublin, the latter also having PET imaging facilities and plans are advanced to begin amyloid PET scanning there also. TCIN partners the Mercers Institute of Studies in Ageing at St. James's Hospital, and TCIN's Memory Research Unit with its 1,000 elderly volunteers complements the Memory Clinic at St. James's. TCIN also is a key partner in the TILDA longitudinal study in ageing and is supplying the imaging facilities for the proprosed "add-on" imaging study to this internationally unique 10 year follow up study of over 8000 Irish people. The two human 3T MRI facilities are identically equipped Philips machines, capable of simultaneous fMRI, EEG and pupillometry: this is one of a handful of laboratories in the world successfully combining these.

TCIN has one of the leading human evoked potential laboratories in the world. This interconnected web of firstclass facilities, investigators and cohorts demands that Trinity appoints a world-class leader in cognitive neuroscience who can capitalise on the opportunities afforded by this unique team.



Grants within TCIN

Grants are currently held from agencies such as the Wellcome Trust, Science Foundation Ireland, the European Commission, Atlantic Philanthropies, NARSAD and many other sources.

Responsibilities of the Post and Required Experience

The Professor will provide academic leadership to research and teaching in the domain of cognitive neuroscience within Trinity's activity, and will contribute to its strategic development within the School of Psychology and Institute of Neuroscience. S/he will be expected to contribute to the teaching programme while pursuing a vigorous research programme and will have the capacity to represent the subject and the discipline inside and outside the University.

The successful candidate will be a major scholar with a very strong international profile in neuro-imaging, with a considerable track record in research, publications and research funding. S/he will show excellence in undergraduate and postgraduate teaching; considerable expertise in research supervision and mentoring, leadership in course coordination and administration. S/he should demonstrate the capacity to become involved in interdisciplinary and inter-institutional projects and show excellent leadership and team-building qualities.

Person Specification

Applications are invited from suitable qualified candidates, who must be a scientist of international standing with a strong track record of research excellence. S/he must have experience of managing a team of researchers, preferably participating in a large multi-PI research programme. The successful applicant must also have excellent communication and interpersonal skills and the ability to lead, work with and motivate an interdisciplinary team of researchers, clinical and industrial collaborators and other agencies.

Qualifications

- Candidates must have a PhD in a relevant discipline and demonstrate a research track record, which contributes to the field of cognitive neuroscience and neuroimaging.
- Experience in the development of collaborative research programmes.
- Outstanding research record with evidence of sustained levels of research funding over a 10- year period.
- Ability to build up new strategic collaboration schemes nationally and internationally.
- Experience in the engagement with external stakeholders funding agencies, policy bodies, Government etc.



Further Information

Interested applicants may contact the following people, in the first instance, with informal enquiries:

- Professor lan Robertson, Head of School of Psychology: E: iroberts@tcd.ie, T: +353 1 896 2684
- Professor Shane O'Mara, Director of TCIN: E: shane.omara@tcd.ie, T: +353 1 896 8447

Further information on the School of Psychology may be obtained at <u>www.tcd.ie/psychology</u> Further information on TCIN may be obtained at <u>www.tcd.ie/neuroscience</u> Further information on Trinity may be obtained at <u>www.tcd.ie</u>

Application Details

Applicants **<u>must</u>** provide the following information in applying for this position:

- A comprehensive curriculum vitae including full data on publications.
- Names and contact details (i.e., addresses, e-mail addresses) of three referees.
- Statement on his/her vision for the future development of the role

PLEASE NOTE: Interested applicants should contact by noon (GMT), Friday, 12th September 2014, our Executive Search Partners, Perrett Laver.

Contact Person: Dr Sinead Gibney: Tel: +44 (0) 20 7340 6207 E-mail: sinead.gibney@perrettlaver.com

For application details and job specification, please visit <u>www.perrettlaver.com/candidates</u>, quoting reference number 1757

Equal Opportunities Policy

Trinity College Dublin is an equal opportunities employer and is committed to the employment policies, procedures and practices that do not discriminate on grounds such as gender, civil status, family status, age, disability, race, religious belief, sexual orientation or membership of the travelling community.





TRINITY COLLEGE DUBLIN
COLÁISTE NA TRÍONÓIDE, BAILE ÁTHA CLIATHTHE
UNIVERSITY
OF DUBLIN