

## Post Specification

<b>Post Title:</b>	Research Fellow – FIB SEM
<b>Post Status:</b>	Specific Purpose Contract (Maternity cover) Full-time
<b>Research Group / Department / School:</b>	CRANN, Trinity College Dublin, the University of Dublin
<b>Location:</b>	Advanced Microscopy Laboratory Trinity College Dublin, the University of Dublin College Green, Dublin 2, Ireland
<b>Reports to:</b>	Prof. Mick Morris
<b>Salary:</b>	Appointment will be made on the SFI Researcher Salary Scale
<b>Hours of Work:</b>	39 hours
<b>Closing Date:</b>	12 Noon (Irish Standard Time), [30th August 2022]

## Post Summary

To be a leader at CRANN and AMBER in the design and application of new FIB and SEM techniques. To assist in the future development of the research activity on the AML microscopes and to train and support users from both academia and industry involved in research programs using these instruments. This work will be carried out in collaboration with academic members of staff, research fellows and research students within the Advanced Microscopy Laboratory at CRANN, Trinity College Dublin. The post holder will be able to support and engage in research topics from a wide range of projects offered by Professors Mick Morris, Valeria Nicolosi, Michael Coey, Jonathan Coleman, Hongzhou Zhang, John Boland, Lewys Jones, Richard Hobbs, John Donegan and others.

## **Standard Duties and Responsibilities of the Post**

The FIB specialist will report to Prof Mick Morris or his/her designee. The successful SEM/FIB expert will have responsibility for:

- Supporting, enabling and assisting in the delivery of the world leading research carried out by CRANN / AMBER researchers and the external researchers who use the AML facility.
- Provide state of the art imaging and analytical expertise
- Develop *in-situ* FIB techniques and 3D FIB techniques to aid in-situ TEM research (Heat, Gas, Liquid, Cryo, Biasing), applications and training
- Establish state of the art TEM sample preparation methodologies on FIB including Ar Ion Beam Milling
- Responsible for carrying out collaborative and contract work on the FIB for academia and industry.
- Support research activities within large coordinated research programmes such the AMBER Centre and the CDT (Centre of Doctoral Training) and other research consortia.
- Deliver training and supervised usage, transfer technical skills to CRANN researchers and affiliates.
- Keep up to date information on current developments in FIB
- To represent the Advanced Microscopy laboratory in discussions, negotiations with outside research bodies.
- Responsible for marketing the FIB & AML research capability to external customers from academia and industry.
- Responsible for tracking metrics for the use of the tools.
- Ensure that the facilities remain within specification and liaise with the equipment suppliers on specifications.
- Supporting research grant applications for funding to utilize the tool.
- Responsible for international benchmarking of the facility and for keeping the Ion beam systems performing at its optimum specification.
- Maintaining records in the areas of specimens prepared, training records, and consumable records and Health & safety checks.
- Any other duties at the discretion of your supervisor / manager

## Funding Information

AMBER, the SFI Centre for Advanced Materials and Bioengineering Research

## Person Specification

### Qualifications:

The ideal candidate will ideally have a postdoctoral qualification in Physics/Material Science/Chemistry together with a particular interest in FIB & SEM and associated instrumentation in a relevant research discipline. Individuals with some proven expert experience in STEM/ TEM may also be considered.

### Knowledge & Experience (Essential & Desirable)

At least 3 years hand-on electron microscopy experience

### Skills & Competencies

- A minimum of at least 3 years but ideally five years hands-on experience with FIB and sample preparation methodologies are required.
- Ability to work independently and as an active member of the Advanced Microscopy Laboratory working cooperatively with senior and junior colleagues and sharing laboratory and research resources.
- Excellent oral and communication skills with the proven ability to write clear English at a suitably high standard for the preparation of written reports, funding applications, publications and presentations at both generalist and specialist levels. A key aspect will be effective communication with external instrument manufacturers.
- Project management and interpersonal skills.
- Other electron microscopy skills would be desirable including TEM, EBL

### Further Information for Applicants

URL Link to Area	<a href="http://www.tcd.ie">www.tcd.ie</a>
URL Link to Human Resources	<a href="https://www.tcd.ie/hr/">https://www.tcd.ie/hr/</a>
URL to CRANN	<a href="https://www.tcd.ie/crann/">https://www.tcd.ie/crann/</a>
URL to AMBER	<a href="http://ambercentre.ie/">http://ambercentre.ie/</a>

## **Trinity College Dublin, the University of Dublin**

Trinity is Ireland's premier university, with a proud tradition of excellence stretching back to its foundation in 1592. The oldest university in Ireland, and one of the oldest in Europe, today Trinity sits at the intersection of the past and the future, and is ideally positioned as a major university in the European Union. Our 47-acre campus is located in the heart of Dublin city centre and is home to historic buildings dating from the University's establishment, as well as some of the most cutting-edge teaching and research facilities in Ireland. Students at Trinity benefit from a unique educational experience across a range of disciplines in our three faculties – Arts, Humanities, and Social Sciences; Engineering, Mathematics and Science; and Health Sciences. The pursuit of excellence through research and scholarship is at the heart of a Trinity education, and our researchers have an outstanding publication record and strong record of grant success.

Trinity has developed [18 broad-based multidisciplinary research themes](#) that cut across disciplines and facilitate world-leading research and collaboration within the University and with colleagues around the world. These internationally recognised themes include such diverse areas as Cancer, Immunology, Telecoms, Identities in Transformation, Nanoscience, Neuroscience, and Making Ireland. Researchers from across the University work together in innovative ways to develop new and exciting approaches to their research and explore the frontiers of knowledge in the 21<sup>st</sup> century. In creating these dedicated research themes, Trinity's researchers are able to become a more powerful force on the global stage, successfully competing for large-scale grants and attracting top students and faculty to the University. Trinity is home to Ireland's first purpose-built Nanoscience research institute, CRANN, which opened in January 2008. This state-of-the-art facility houses 150 scientists, technicians, and graduate students in specialised laboratories, fostering creative innovations that have seen Trinity's researchers make significant breakthroughs.

The Trinity Long Room Hub for Arts and Humanities Research Institute is the University's flagship institute for research in the Arts and Humanities, providing a world-class environment for cross-disciplinary collaborative projects. The Long Room Hub provides a central location through which the University's internationally respected Arts and Humanities research can become more visible, demonstrating its relevance for contemporary and future societies.

Researchers from across the University regularly participate in debates on topical issues facing the world today. As well as operating an International Visiting Research Fellowship programme, the Long Room Hub also hosts major EU-funded Digital Humanities projects.

One of the most instantly recognised parts of Trinity's campus is the famous Old Library, home to the historic Book of Kells as well as other internationally significant holdings in manuscripts, maps, and early printed material. Trinity's Library is the largest research library in Ireland and is an invaluable resource to Trinity's students and research community. Built up over the four centuries of the University's existence, the Library's collections have benefitted from its status as a Legal Deposit library for the past 200 years, granting Trinity the right to claim a copy of every book published in Ireland and the UK. At present, the Library's holdings span approximately 4.25 million books, 22,000 printed periodical titles, and access to 60,000 e-journals and 250,000 e-books.

Trinity attracts top students from Ireland and abroad and prides itself on the consistently high standard of student admitted to the University every year. These students are drawn to Trinity for the excellence of our research-led teaching and for the quality and prestige a degree from this University confers. Trinity has also pioneered accessibility to education in Ireland, becoming the first university in the country to reserve 15% of its undergraduate places for students from non-traditional learning groups. Trinity is the top-ranked European university for student entrepreneurship and Europe's only representative in the world's top-50 universities.

Our alumni have gone on to shape the history of Ireland and of Western Europe in a wide range of fields. These include such notable figures as Jonathan Swift, Oscar Wilde, William Rowan Hamilton, Edmund Burke, William Stokes, Denis Burkitt, Louise Richardson, Lenny Abrahamson, and Anne Enright. Three of Trinity's graduates have been awarded Nobel prizes: Ernest Walton for Physics in 1951; Samuel Beckett for Literature in 1968; and William Campbell for Physiology / Medicine in 2015. Trinity also counts the first female President of Ireland among its alumni in Mary Robinson, as well as other notable former Presidents Douglas Hyde and Mary McAleese. At Trinity we are justifiably proud of our tradition, and we strive to uphold this excellence as we face the demands of the 21<sup>st</sup> century.

## Ranking Facts

Trinity is the top ranked university in Ireland. Using the QS methodology, the University is ranked 104th in the world and using the Times Higher Education World University Rankings methodology Trinity is 117<sup>th</sup> in the world.



## Overall

- Trinity is Ireland's No.1 University in the QS World University Ranking, THE World University Ranking and the Academic Ranking of World Universities (Shanghai).
- Trinity is ranked 104th in the World, and 36th in Europe, in the 2018/2019 QS World University Ranking.
- Trinity is ranked in the Top 120 for Graduate Employability in the QS 2018 Rankings.
- Trinity is in the Top 50 most innovative universities in Europe according to Reuters.<sup>1</sup>
- Between 2010 and 2015, Trinity was ranked the top university in Europe for entrepreneurship according to Pitchbook's independent analysis.<sup>2</sup>

## Internationalisation

<sup>1</sup> <http://www.reuters.com/article/us-innovative-stories-europe-idUSKCN0Z00CT>

<sup>2</sup> <http://pitchbook.com/news/reports/2015-2016-pitchbook-universities-report>

- Trinity is ranked 52nd in the world in the THE World University Ranking for international outlook.

### **Research Performance**

- Of the 981 institutions included in the THE World University Rankings for 2017, Trinity is in the top 15% internationally for research performance.
- Trinity is ranked in the top 15% internationally by QS for citations.

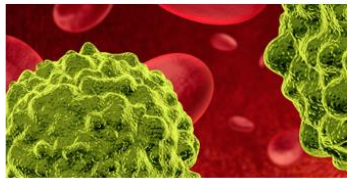
### **In the QS World University Subject Rankings:**

- Trinity is ranked in the top 50 worldwide in four subject areas according to the QS World University Subject Rankings 2018. The University is ranked in the top 100 globally for 20 subjects overall.
- Trinity's Top 50 subjects include Nursing (25<sup>th</sup>), Classics (28<sup>th</sup>), English (28<sup>th</sup>) and Politics (43<sup>rd</sup>).
- Trinity is ranked in the top 100 for each of the following 16 subjects: History, Languages, Philosophy, Theology, Computer Science, Biology, Medicine, Pharmacy, Chemistry, Geography, Materials Science, Education, Law, Social Policy, Sociology and Sport.
- The University is ranked in the top 100 for three broad subject areas: Arts & Humanities (57<sup>th</sup>), Life Sciences & Medicine (87<sup>th</sup>), and Engineering & Technology (89<sup>th</sup>).

## Research Themes



**Ageing**



**Cancer**



**Creative Arts Practice**



**Creative Technologies**



**Digital Engagement**



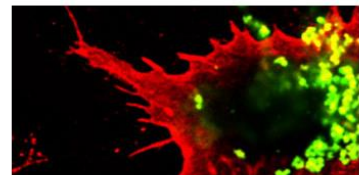
**Digital Humanities**



**Genes & Society**



**Identities in Transformation**



**Immunology, Inflammation & Infection**



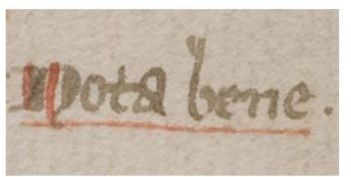
**International Development**



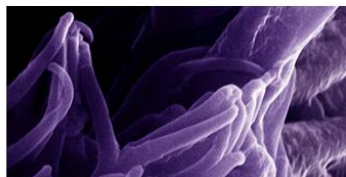
**International Integration**



**Making Ireland**



**Manuscript, Book and Print Cultures**



**Nanoscience**



**Neuroscience**



**Telecommunications**



**Smart Sustainable Planet**



**Next Generation Medical Devices**



## The Selection Process in Trinity

The Selection Committee (Interview Panel) may include members of the Academic and Administrative community together with External Assessor(s) who are expert in the area. Applications will be acknowledged by email. If you do not receive confirmation of receipt within 1 day of submitting your application online, please contact the named Recruitment Partner on the job specification immediately and prior to the closing date/time.

Given the degree of co-ordination and planning to have a Selection Committee available on the specified date, the University regrets that it may not be in a position to offer alternate selection dates. Where candidates are unavailable, reserves may be drawn from a shortlist. Outcomes of interviews are notified in writing to candidates and are issued no later than 5 working days following the selection day.

In some instances the Selection Committee may avail of telephone or video conferencing. The University's selection methods may consist of any or all of the following: Interviews, Presentations, Psychometric Testing, References and Situational Exercises.

It is the policy of the University to conduct pre-employment medical screening/full pre-employment medicals. Information supplied by candidates in their application (Cover Letter and CV) will be used to shortlist for interview.

Applications from non-EEA citizens are welcomed. However, eligibility is determined by the Department of Jobs, Enterprise and Innovation and further information on the Highly Skills Eligible Occupations List is set out in Schedule 3 of the Regulations <https://www.djei.ie/en/What-We-Do/Jobs-Workplace-and-Skills/Employment-Permits/Employment-Permit-Eligibility/Highly-Skilled-Eligible-Occupations-List/> and the Ineligible Categories of Employment are set out in Schedule 4 of the Regulations <https://www.djei.ie/en/What-We-Do/Jobs-Workplace-and-Skills/Employment-Permits/Employment-Permit-Eligibility/Ineligible-Categories-of-Employment/>. Non-EEA candidates should note that the onus is on them to secure a visa to travel to Ireland prior to interview. Non-EEA candidates should also be aware that even if successful at interview, an appointment to the post is contingent on the securing of an employment permit.

## **Equal Opportunities Policy**

Trinity is an equal opportunities employer and is committed to employment policies, procedures and practices which 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. On that basis we encourage and welcome talented people from all backgrounds to join our staff community. Trinity's Diversity Statement can be viewed in full at <https://www.tcd.ie/diversity-inclusion/diversity-statement>.

## **Pension Entitlements**

This is a pensionable position and the provisions of the Public Service Superannuation (Miscellaneous Provisions) Act 2004 will apply in relation to retirement age for pension purposes. Details of the relevant Pension Scheme will be provided to the successful applicant.

Applicants should note that they will be required to complete a Pre-Employment Declaration to confirm whether or not they have previously availed of an Irish Public Service Scheme of incentivised early retirement or enhanced redundancy payment. Applicants will also be required to declare any entitlements to a Public Service pension benefit (in payment or preserved) from any other Irish Public Service employment.

Applicants formerly employed by the Irish Public Service that may previously have availed of an Irish Public Service Scheme of Incentivised early retirement or enhanced redundancy payment should ensure that they are not precluded from re-engagement in the Irish Public Service under the terms of such Schemes. Such queries should be directed to an applicant's former Irish Public Service Employer in the first instance.

## Application Procedure

### Application Procedure

Applicants should submit a full Curriculum Vitae to include the names and contact details of 2 referees (including email addresses), to:-

**Name Dermot Daly**

**Email Address**

[Dermot.daly@tcd.ie](mailto:Dermot.daly@tcd.ie)



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VACANCIES IRELAND**  
universityvacancies.com

