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# IPIC PhD Studentships – Biomedical Theme

## PMO-19 IPIC PhD Studentships – Biomedical Theme

### Contract: Full Time/Fixed Term

We have five prestigious PhD Studentships available that will commence in September 2020. Students will join the Irish Photonics Integration Centre (IPIC), Ireland's centre of excellence for research and innovation in photonics, as it undergoes a rapid expansion programme to grow to 220 researchers, to become one of Europe's top photonics integration research centres. As part of a new centre award, four research multidisciplinary themes are launched, each of them based on more than 10 dedicated researchers.

The Biomedical theme will now hire these five PhD students. Each studentship will offer the opportunity for you to:

- Complete a cutting edge research project in one of the areas listed below
- Collaborate with our 17 Principal Investigators and their research teams
- Access Tyndall's world-class research facilities
- Publish in leading journals and present at top international conferences
- Complete advanced training courses in photonics
- Develop translational skills, e.g. project management, communication & dissemination and entrepreneurial skills
- Connect with our global network of 30 industry and more than 100 academic partners
- Join a diverse community of young researchers from across the world and participate in one of our vibrant student chapters

The five Themes are each tasked to develop game changing technologies that will be deployed across multiple applications, from optical communications to medical devices, and each with an investment of about €3M. We are entering a very exciting time for photonics, with the use of light addressing many critical issues for today's society. The key to achieving the best results is the integration of photonic components into circuits, the approach that has revolutionised electronics over the last 50 years. We are at the start of a similar journey for photonics with new semiconductor technologies, and the integration strategies will enable multiple applications.

Our research in the Biomedical Theme, led by IPIC Deputy Director Stefan Andersson-Engels, will address the development of ultra-compact image sensor technologies to advance medicine in a wide range of clinical specialities.

We are now seeking five dynamic PhD students who will work together in an extended team of in total 13 dedicated researchers to tackle these scientific challenges and to help us achieve our goals in the following areas:

1. Image sensor design for these ultra-compact image sensors optimised for biomedical use (Supervisor – Prof. Stefan Andersson-Engels, Position BIO-4)
2. Optical powering of image sensor (Supervisor – Prof. Brian Corbett, Position BIO-5)
3. Optical communication with image sensor (Supervisor – Prof. Paul Townsend, Position BIO-6)
4. Functional tissue imaging based on luminescent exogenous labels (Supervisor – Dmitri

Papkovsky BIO-12)

5. UV Emitters for biomedical applications – (Prof Peter Parbrook, Position BIO-7)

All of the studentships will be based at University College Cork, the three first will be at Tyndall National Institute, while the fourth will be at Biochemistry.

An annual student stipend of €18,500 applies for this successful candidate for this position. Yearly University Academic Fees will be paid by the Tyndall National Institute.

If you are interested in helping us achieve our ambition, complete and submit an application form and motivation letter, [highlighting your preferred project](#).

### **Application Instructions**

**Step 1 - Click [here](#) to download and complete the Application form and indicate the Job Reference PMO-19**

**Step 2 – Return the [completed Application form, together with your CV and motivation letter to \[careers@tyndall.ie\]\(mailto:careers@tyndall.ie\)](#).**

*Postgraduate applicants whose first language is not English must provide evidence of English language proficiency as per UCC regulations*

(<https://www.ucc.ie/en/study/comparison/english/postgraduate/>). Certificates should be valid (usually less than 2 years old) and should be uploaded with their application. In special circumstances the panel may consider a prior degree in English (e.g. Master thesis written in English) as evidence of English language proficiency.

Please note that Garda vetting and/or an international police clearance check may form part of the selection process.

The University, at its discretion, may undertake to make an additional appointment(s) from this competition following the conclusion of the process.

Please note that an appointment to posts advertised will be dependent on University approval, together with the terms of the employment control framework for the higher education sector.

At this time, Tyndall National Institute does not require the assistance of recruitment agencies.

Tyndall National Institute at University College, Cork is an Equal Opportunities Employer.