



Faculty of Science and Health
School of Chemical Sciences
Marie Curie Early Stage Researcher - NATURE-ETN PROGRAMME
Fixed Term Three Year Contract

Dublin City University www.dcu.ie is a research-intensive, globally-engaged, dynamic institution that is distinguished both by the quality and impact of its graduates and by its focus on the translation of knowledge into societal and economic benefit. Through its mission to transform lives and societies through education, research and innovation, DCU acts as an agent of social, cultural and economic progress. DCU is Ireland's fastest growing university, and now hosts more than 17,000 students across its three academic campuses: DCU Glasnevin Campus, DCU St Patrick's Campus and DCU All Hallows campus.

DCU has a strong track record in attracting both Irish and European Union funding under FP7, Horizon 2020, Marie Curie Actions and Erasmus. We offer a dynamic and internationally focused environment in which to advance your academic career.

School of Chemical Sciences

The School of Chemical Sciences is one of Ireland's most progressive and highest achieving Schools with outstanding facilities, housed within a modern and dynamic city campus. Our goal is to develop graduates with the ability to critically evaluate, and then to solve, chemical and pharmaceutical problems, preparing the highest quality graduates capable of meeting the challenges of modern industry and research. The School is highly successful at attracting large scale research funding, with our researchers having significant roles within nationally significant university/industry collaborative initiatives and European funded Integrated Training Networks. The School is one of the leading academic schools within DCU and is ranked in the top 300 chemistry schools/departments in the world (QS Rankings), a reflection of the School's ambitious research activities and its undergraduate/postgraduate degree programmes.

Background

This is an opportunity to join a Marie Skłodowska Curie Innovative Training Network (**NATURE-ETN**) as an Early Stage Researcher (ESR). This is a large EU Horizon 2020-funded program that will employ 15 ESRs across Europe to embark upon PhD training in nucleic acid-based chemistry and biotechnology fields.

The overarching aim of the NATURE-ETN research programme is to develop new materials and technologies in therapeutic nucleic acids that extend the boundaries of today's gene editing technology, cancer immunotherapy, and epigenetic base manipulation. NATURE-ETN researchers will be trained within an innovative, multi-disciplinary and entrepreneurial environment so that they can meet the challenges facing future scientific leaders in European industry. More specifically, this project will provide dynamic world-class training to 15 PhD students in the areas of synthetic click chemistry, nucleic acid chemistry, DNA crystallography, materials chemistry, cell culture and epigenetic sequencing. Three projects will be based in the School of Chemical Sciences in DCU. A detailed overview of the NATURE-ETN can be found [here](#).

As an ESR you will be registered on the structured PhD programme at DCU within the School of Chemical Sciences under the supervision of Associate Professor Andrew Kellett. You should be aware that the PhD programme in DCU runs for 48 months and, as this exceeds the duration of the project, you will need to cover the final year of expenses outside the funding covered by this project.

Project Description: Development of catalytic antisense oligonucleotides by click chemistry (ESR 11)

- Main areas of expertise/skills required by the candidate: Inorganic synthesis, nucleic acid click chemistry, molecular biology.
- Training will involve: Advanced synthetic chemistry, nucleic acid chemistry, click chemistry, molecular biology / biophysical techniques.
- The project will be conducted in collaboration with Ludwig-Maximilian University Munich and NIBRT Dublin.

Duties and Responsibilities

- Conduct a specified programme of research under the supervision and direction of the Principal Investigator (PI)
- Assist the PI and research group in the design and development of the research programme
- Assist the PI in the management/ co-ordination of the key aspects of the research programme (e.g. financial management, reporting, equipment management etc.)
- Engage in dissemination of the results of the research in which they are engaged to the wider research community under the supervision of the PI
- Engage in appropriate training and development opportunities as required by the PI the School or Research Centre, or the University
- Engage with internal and external stakeholders including academic and industry partners/ collaborators as appropriate
- Develop and maintain relevant documentation and SOPs
- Carry out administrative work associated with the programme, as necessary

Applicant Requirements

Applicants will ideally have an MSc in organic, inorganic or medicinal chemistry. Applicants with equivalent experience in biochemistry are also welcome to apply. An excellent track record in laboratory skills directly related to the project is essential. Excellent communication skills in English, both written and spoken, are also essential.

Eligibility

Applicants from all countries are eligible. However, as the network aims to foster international collaborations, applicants who are Irish nationals are only eligible for this post if they have lived or carried out their main activity in another country for more than 24 months since May 2017.

Conditions

Applicants at the time of recruitment must be in the first four years (full-time equivalent research experience) of their research careers and have not yet been awarded a doctoral degree. At the time of recruitment, they shall not have resided or carried out their main activity (work, studies etc.) in the country of the host institution (Ireland) for more than 12 months in the 3 years immediately prior to the reference date. Compulsory national service and/or short stays such as holidays are not taken into account.

Applicants should note that they must be available to start employment on, or before, 1st April 2021.

Mandatory Training

Post holders will be required to undertake the following mandatory compliance training: Orientation, Health and Safety, Data Protection (GDPR). Other training may need to be undertaken when appropriate.