



Marie Skłodowska-Curie
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Paul Murphy Research Group (Synthetic Carbohydrate Chemistry), School of Chemistry, NUI Galway

Professor Paul Murphy, NUI Galway School of Chemistry, is looking to host an experienced researcher via funding through Marie Skłodowska-Curie Individual Fellowships. In order to secure funding, the experienced researcher must develop a proposal with the host for the September 12th 2018 deadline.

Company Description

NUI Galway's School of Chemistry has a long and rich tradition of teaching, research and innovation. This School is one of the most active in Ireland and its mission is to provide excellence in teaching and learning and in our research.

Within the School of Chemistry there are excellent facilities for synthetic chemistry accessible to the group of Professor Paul Murphy. This includes access to high field NMR (400, 500 and 600 MHz spectrometers) and ESI-TOF mass spectrometry as well as crystallography if required, and other relevant techniques. There is a current investment in the purchase of flow chemistry equipment for synthesis.

Professor Murphy will be directing researcher in design and synthesis of glycomimetics in the coming years (for targeting lectins). Professor Murphy is keen to establish more activity in the area of oligosaccharide synthesis, including development of methods for synthesis of important glycans. Professor Murphy is also interested in developing new chemistry for conversion of renewable sugars from biomass to chemicals/higher value products as part of a Marie Curie Proposal.

Project idea and researcher opportunities

Research Field: *Chemistry CHE*

The researcher will develop new glycosylation strategies and apply this to biologically important glycosides, including vaccine candidates. Alternatively, they will develop new methods for conversion of renewable carbohydrates from biomass to chemicals and higher value products. Experience in use of flow chemistry and other automation is envisaged. The fellow will also have the opportunity to gain experience in teaching, the development of transferrable skills, and collaborating with biologists/engineers/medical researchers. (max 70 words)

Researcher Requirements



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- The researcher must fulfil the MSCA-IF mobility and experienced researcher requirements.¹
- The researchers must have a PhD in Organic Chemistry with excellent synthesis experience to date. They should be competent in use of NMR/MS in structure determination. They should have an excellent publication record commensurate with experience to date. They should have an interest in gaining experience in synthetic carbohydrate chemistry, particularly in glycosidation reactions and in improving glycosidation for access to biologically and medically important glycans/glycopeptides. Alternatively they should be interested in exploring new chemistry for conversions of renewable sugars to higher value products, including with modern technologies such as flow chemistry.

Contact information

If you are interested in applying for a MSCA-IF with Professor Paul Murphy at NUI Galway contact paul.v.murphy@nuigalway.ie and you must put 'MSCA-IF application' in the subject line. Please enclose your CV and publication list and include information regarding your role on these publications (major author, first author etc.).

¹ **MSCA-IF mobility:** The researcher must not have resided or carried out the main activity (work, studies, etc.) in the country of the beneficiary for more than 12 months in the 3 years immediately before the call September 12th deadline (flexible 36 months in the 5 years if eligible for career restart or reintegration fellowship <https://www.iaa.ie/irish-marie-curie-office/funding-calls/individual-fellowships/>)

Experienced researcher requirements: The researcher must have at least 4-years full time research experience or hold a doctorate before the September 12th deadline.