 

**Postdoctoral Researcher – Chemical Biology**

**School of Chemistry**

**NUI Galway**

**Ref. No. NUIG-026-19**

Applications are invited from suitably qualified candidates for a full-time fixed-term position as a postdoctoral researcher with the School of Chemistry at the National University of Ireland, Galway. This position is funded by the SFI-HRM-Wellcome Biomedical Research Partnership (<https://wellcome.ac.uk/funding/sfi-hrb-wellcome-research-partnership>) and is available from 1 April 2019 for a period of 12 months.

Non-enzymatic ternary reactions of fibrous protein with monosaccharides gives rise to a family of crosslinks, termed advanced glycation end-products (AGEs). Despite many in vitro investigations on the chemistry of these crosslinks, there remains a very poor understanding of the finer details of the mechanism of formation and a distinct lack of a big picture that unifies all of the current structurally characterised AGEs and associated by-products.

Recently, a project entitled *Towards a Unifying Mechanistic Picture of Advanced Glycation Endproduct (AGE) Crosslinks,* with Dr. Eddie Myers (School of Chemistry, NUI Galway: <http://www.eddiemyerschemistry.com/>) as principal investigator,received funding from the SFI-HRM-Wellcome Biomedical Research Partnership. This project aims to address the above research problem and the research team, in partnership with Prof. Olivier Thomas (Marine Institute and School of Chemistry, NUI Galway: <http://www.nuigalway.ie/our-research/people/chemistry/olivierthomas/>) would like to hire a postdoctoral researcher to assist in bringing this project to its complete fruition.

**Job Description:**

The successful candidate will test several hypotheses through the analyse and characterisation of complex mixtures of isotopically labelled glycated amino-acid derivatives and proteins, obtained through suitably designed experiments, by a combination of ultra-high-performance liquid-chromatography and advanced mass spectrometry techniques. In another strand, the candidate will design and synthesise suitable small-molecule reagents for the selective glycation of proteins so that the physiochemical and biochemical properties of specific AGEs can be determined. The successful candidate will also be involved in the training and supervision of less experienced colleagues (Ph.D. students and undergraduate researchers) in the research environment.

**Duties:**

* Design experiments to elucidate the mechanism of protein glycation
* Analyse and characterise complex mixtures of glycated amino-acids and proteins through UPLC-HRMS/MS.
* Design synthetic routes to and synthesize small-molecule reagents for preparing homogeneously glycated protein.
* Assist in the writing of reports and manuscripts for publication
* Assist in the supervision of undergraduate and Ph.D. students
* Assist in the daily running of the research laboratory
* Participate in weekly group meetings

**Essential Requirements:**

It is essential that the successful candidate:

* hold a Ph.D. in chemistry or a closely-related discipline
* have experience in high-performance liquid chromatography and mass spectrometry
* have experience in the synthesis and characterisation of small molecules
* have a strong publication record

**Desirable Requirements:**

It is desirable that the successful candidate:

* have excellent communication skills
* have experience in metabolomics/fluxomics
* have a track record of supervision of undergraduates and/or postgraduates students

**Salary**: 39,530 per annum

**Start date**: Position is available from 1 April 2019 for a period of 12 months.

**Continuing Professional Development/Training**:

Researchers at NUI Galway are encouraged to avail of a range of training and development opportunities designed to support their personal career development plans.

Further information on research and working at NUI Galway is available on [Research at NUI Galway](http://www.nuigalway.ie/our-research/)

For information on moving to Ireland please see [www.euraxess.ie](http://www.euraxess.ie)

Further information about the School of Chemistry is available at <https://www.nuigalway.ie/science/school-of-chemistry/>

Informal enquiries concerning the post may be made to Dr. Eddie Myers

**To Apply:**

Applications to include a covering letter, CV, and the contact details of two referees should be sent, via e-mail (in word or PDF only) to Dr. Eddie Myers, email: eddie.myers@nuigalway.ie

Please put reference number **NUIG-026-19** in subject line of e-mail application.

**Closing date for receipt of applications is 5.00 pm, Friday 15th February 2019**

**Interviews are planned to be held on 4 March 2019**

All positions are recruited in line with Open, Transparent, Merit (OTM) and Competency based recruitment

National University of Ireland, Galway is an equal opportunities employer.

