



Maynooth University Ollscoil Mhá Nuad

Department of Biology Post-Doctoral Researcher / Senior Postdoctoral Researcher

*FamilySleeps; Disruption of Circadian Rhythms in Families
(24-month contract)*

The Role

The Family Genomics Research Group in the Department of Biology, Maynooth University (<https://www.familygenomics.maynoothuniversity.ie/>) are recruiting a Postdoctoral Researcher to join our ERC "*FamilySleeps*" research project, funded by a European Research Council Starting Investigator grant awarded to Dr Lorna Lopez, "*Disruption of Circadian Rhythms in Families – an Endophenotype of Autism Spectrum Disorder*".

FamilySleeps is the first study to investigate circadian rhythms in autism in the context of genetics, the environment, and social synchrony of the family. *FamilySleeps* will bring together a team of scientific and clinical researchers, with public patient involvement experts, to work on the underlying biological basis of disrupted circadian rhythms in families with autism. This understanding will help address sleep disruption and other problems in families with autism, as well as increasing our understanding of the role of circadian rhythms in neurodevelopment in a family context.

We are looking to appoint a lead analyst on our genomic risk score work package with a statistical genetics research background and experience in neuropsychiatric genomic risk profiling data analysis. The successful candidate will lead large-scale studies on circadian rhythms in families with neurodevelopmental conditions, and contribute to the supervision of a PhD student. The postdoctoral researcher will join a dynamic, well-supported, multidisciplinary research team of geneticists, chronobiologists and psychiatrists undertaking genetic risk profiling on circadian rhythms in families. The successful candidate will be supported to prepare fellowship proposals and to develop independent research themes, should they wish to do so. This post is for 24 months, with a possibility of extension for a further 24 months, and an anticipated commencement month of September 2022.

Maynooth University is committed to a strategy in which the primary University goals of excellent research and scholarship and outstanding education are interlinked and equally valued.



This project has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme

Principal Duties

Research, administrative and other duties:

This will include:

- Working under the supervision of principal investigator Dr Lorna M. Lopez, in collaboration with a team of researchers in Maynooth University and national, European and international collaborators
- Leading genetic risk profiling research on circadian rhythms in families with neurodevelopmental conditions
- Conducting statistical analysis, managing and performing genetic analyses on sensor data output, and neuroendocrine secretion in neurodevelopmental conditions
- Conducting relevant genetic analysis on large-scale datasets eg UK Biobank, Generation Scotland, ABCD
- Communicating research at scientific and non-specialist meetings
- Writing academic papers for publication
- Submitting new research proposals to Irish, EU and other funding agencies
- Undertaking relevant training and development
- Assisting in the supervision of team members
- Carrying out additional duties as may reasonably be required within the general scope and level of the post.

The ideal candidate will have:

Essential:

- Applicants will have a PhD in genetics, statistical genetics, chronobiology or neuropsychiatry and/or a related discipline.
- To be appointed at Senior Post-Doctoral Researcher level, the successful candidate must have completed a minimum of 2 years of relevant post PhD research experience.
- Knowledge and research experience of human genetic analysis
- Experience in statistical analysis of large datasets, and in the use of Python, R or equivalent
- Self-motivation to direct and manage the development and application of novel genetic analytical methods for association with circadian rhythms and related chronobiology phenotypes including sleep
- Excellent research, analytical and oral and written communication skills to contribute to, or in some cases lead, papers, grants, and technical reports
- Excellent interpersonal skills and highly collaborative
- Experience of project management in an academic setting

Desirable:

- Postdoctoral experience in a relevant field
- Experience working with large-scale biomedical datasets.
- Research experience in human chronobiology



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Faculty and Research Institutes

The Faculty of Science and Engineering comprises the Departments of Biology, Computer Science, Chemistry, Experimental Physics, Mathematical Physics, Mathematics and Statistics, Psychology and Electronic Engineering. The University has also developed a number of interdisciplinary Institutes to support excellent research and to build research capacity across disciplines, including the Institute of Immunology and the Kathleen Lonsdale Institute for Human Health Research.

Kathleen Lonsdale Institute for Human Health Research

The Kathleen Lonsdale Institute for Human Health Research at Maynooth University, takes a uniquely integrated approach to address some of the major health problems of today, including obesity and antimicrobial resistance, as well as researching many chronic inflammatory diseases like Crohn's and ulcerative colitis. The primary objective of the institute is to study key determinants of human health from childhood to adulthood, through to old age. Researchers at the institute explore how environmental, psychological, behavioural and biological factors affect health. The Institute consists of 43 research groups featuring over 100 researchers from disciplines such as Biology, Chemistry, Psychology, Computer Science as well researchers from other Maynooth University departments. While most of the groups focus on the biology of diseases and treatment, researchers also examine the various factors across the life course that determines health.

Department

The Department of Biology has a full-time academic staff of 26. It provides teaching in multiple degree programmes to almost 1,100 students, ranging from undergraduate to doctoral level. The Department of Biology offers well-established BSc Honours degree programmes in Biology, Biological and Biomedical Sciences, and Biotechnology and an award-winning taught MSc programme in Immunology and Global Health. It has a strong tradition in PhD education and currently directs a number of structured PhD programmes. The Department of Biology has a strong international reputation in research and has prioritised the following two research themes for strategic development and investment: 1. Immunology and Microbiology 2. Science underpinning sustainable exploitation of crop plants. Both themes are strongly supported by state-of-the-art approaches and research in Genomics, Proteomics and Chemical Biology.

The University

Maynooth University) is a very distinctive university, a collegial institution focused on science and engineering, humanities, and social sciences, and equally committed to research, teaching and community engagement. Located in Ireland's only university town, its distinctive features and character owe much to its unique history and heritage. It provides a high-quality educational experience to over 13,500 students on a campus with 18th century roots and 21st century dynamism.

The strategic trajectory and accomplishments of Maynooth University, in the twenty years since its establishment as an autonomous public university, are exceptional, and a source of great pride to the university community, staff, students and alumni. Maynooth University is now acknowledged to be one of the leading young universities in the world, ranked 43rd in the latest Times Higher Education (THE) 'Young Universities' list. Maynooth University's growing global reputation is based on the originality, quality, importance and impact of its research and scholarship, commitment to teaching and learning,



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the quality of academic programmes, and its leadership in widening participation in higher education. The sources of success are the dedication of its staff and the energy and engagement of its students.

Maynooth University is a place of lively contrasts – a modern institution, dynamic, rapidly-growing, research-led and engaged, yet grounded in historic academic strengths and scholarly traditions. With over 13,500 students Maynooth offers a range of programmes at undergraduate, postgraduate and doctoral level in the humanities, science and engineering and social sciences, including business, law and education. The University also offers a range of international programmes and partnerships.

Maynooth's unique collegial culture fosters an interdisciplinary approach to research, which its world-class academics bring to bear in tackling some of the most fundamental challenges facing society today. The University's research institutes and centres consolidate and deliver this impact as vibrant communities of learning, discovery and creation. Research at Maynooth also is very much central to its teaching and the University prides itself on placing equal value on its research and teaching missions.

Principles and Values

Maynooth University is committed to the following values:

- Scholarly rigour;
- Academic freedom;
- Integrity and ethical behaviour;
- Collegiality, transparency and trust;
- Equality, inclusiveness and social justice;
- Operational excellence, organisational flexibility and responsiveness;
- Dignity, respect and care for the individual.

Strategy 2018 - 2022

The University's Strategic Plan 2018-22 builds from a position of confidence. Maynooth University is a University with ambition, vision and values, a clear identity and sense of purpose, a history of achievement, and a future of considerable promise. The Strategy builds on the University's accomplishments and concentrates institutional energy and resources on further development of research and postgraduate education.

For more information please visit <http://www.maynoothuniversity.ie/about-us/university-strategic-plan>

Selection and Appointment

- Only shortlisted candidates will be invited to attend for interview.
- It is anticipated that interviews will be held in late July 2021.
- The appointment is expected to be effective from September 2022.

Equality and Diversity

Maynooth University values the enrichment that comes from a diverse community and seeks to promote equality, prevent discrimination and protect the human rights of each individual. To learn more about our commitment to Equality and Diversity, please read the Maynooth University [Equality and Diversity](#)



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Policy. Additionally, as an [Athena SWAN Bronze Award](#) Institute, we are committed to advancing gender equality across the University.

We aim to reflect the diversity of the community we serve and welcome applications from all individuals, in particular from people underrepresented in our workforce.

Terms and Conditions

This is a fixed-term contract post for a duration of 24 months. The place of work is the campus of Maynooth University, Maynooth, Co. Kildare.

Data Protection Law

Maynooth University will process any personal data provided by you in connection with an application for this role in accordance with the General Data Protection Regulation and the Data Protection Acts 2018.

If your application is successful and you accept an offer of employment at Maynooth University, then your personal data will continue to be processed in accordance with Maynooth University's Staff Data Privacy Notice.

Both the privacy notices and further information relating to data protection, including Maynooth University's other data protection policies and processes, can be viewed at <https://www.maynoothuniversity.ie/data-protection>

Salary

Post-doctoral Researcher: €39,523 - €45,609 per annum (Points 1-6, with annual increments)
Senior Post-Doctoral Researcher: €46,906 - €48,242 per annum (Points 1-2, with annual increments)

Appointments will be made in accordance with public sector pay provisions.

Application Procedure

Closing Date:

23:30hrs (local Irish time) on **Sunday, 17th July 2022.**

Please note all applications must be made via our **Online Recruitment Portal** at the following link: <https://www.maynoothuniversity.ie/human-resources/vacancies>

Please apply with your CV and a Cover letter that includes a brief summary of the following:

- your research interests;
- a proposal for how your previous experience will fit with the *FamilySleeps: Investigations of autism, genetics and chronobiology.*



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Applications must be submitted by the closing date and time specified above. Any applications which are still in progress at the closing time on the specified closing date will be cancelled automatically by the system.

Late applications will not be accepted.

**Maynooth University is an equal opportunities employer
The position is subject to the Statutes of the University**

