Fully Funded PhD Scholarship in Centromere Biology in Drosophila Germ Cells
College of Science and Engineering/ School of Biological and Chemical Sciences / Centre for Chromosome Biology

Applications are invited from suitably qualified candidates for a 4-year full-time Science Foundation Ireland funded PhD scholarship starting in September 2023 in the laboratory of Dr. Elaine Dunleavy affiliated to the College of Science and Engineering/ School of Biological and Chemical Sciences / Centre for Chromosome Biology at the University of Galway.

University of Galway:
Located in the vibrant cultural city of Galway in the west of Ireland, with over 18,000 students and more than 2,400 staff, the University of Galway has a distinguished reputation for teaching and research excellence https://www.universityofgalway.ie/our-research/

The successful candidate will undertake training and research on Centromere Biology in Drosophila Germ Cells.

Brief Project Description:
This project aims to understand the function of molecules that are important for germ cell development in the reproductive tissues. Understanding germ cell division and development is critical, as this information can impact on the diagnosis and treatment of human or animal infertility. The project will address this aim using the fruit fly *Drosophila melanogaster* as a model system, combining genetics, high-resolution cell biology and biochemical approaches.

Detailed Project Description:

The Dunleavy lab studies the biology of germ cells that reside in the reproductive tissues, the ovaries and testes. Germ cells undergo specialised divisions giving rise to gametes (eggs and sperm). The centromere is the genetic locus that directs chromosome segregation at cell division. Understanding how cell division and chromosome segregation is controlled in germ cells is important as errors can lead to the production of defective gametes and infertility. This project aims to investigate molecules and mechanisms that control cell division in germ cells, using the fruit fly *Drosophila melanogaster* as a developmental model system. A key question in the laboratory is to understand how the centromere-specific histone H3 variant CENP-A is targeted to and reproducibly incorporated at centromeres in the germ line. Methodologies applied will include biochemical and molecular biology techniques, genetic manipulation of Drosophila and fluorescence and live imaging of tissues using state-of-the-art techniques, including super-resolution microscopy and the study of protein dynamics *in vivo*.

Further information is available at http://www.chromosome.ie/researchers/dunleavy/

Dunleavy lab publications:
https://pubmed.ncbi.nlm.nih.gov/?term=dunleavy+em+&sort=date

Living allowance (Stipend): €18,500 per annum, [tax-exempt scholarship award]

University fees: €5,500 per annum

Start date: September 1st, 2023

Academic Entry Requirements:
Bachelor of Science (2.1 or higher) in Biochemistry, Genetics or a related discipline. Masters level research experience is highly desirable.
A high level of spoken and written English is required. Please see link for details *entry requirements*

To Apply for the Scholarship:
Please send a letter of motivation and a current CV, indicating your research experience and including the names of two referees to Dr. Elaine Dunleavy via email to elaine.dunleavy@universityofgalway.ie

Contact Name: Dr. Elaine Dunleavy
Contact Email: elaine.dunleavy@universityofgalway.ie

Application Deadline: May 1st, 2023

For information on moving to Ireland please see www.euraxess.ie