University of East Anglia

HR EXCELLENCE IN RESEARCH

PhD Studentship: Modelling Neurocristopathies in Xenopus, Mechanisms and Drug Screening

"NEUcrest" ITN Early Stage Researcher at The University of East Anglia, UK

Grant N. Wheeler Laboratory

'NEUcrest' is a Marie Sklodowska-Curie Innovative Training Network (ITN) project, funded by the European Union Horizon 2020 Programme. ITNs provide high quality and innovative research training, through trans-national mobility of PhD students.

The neural crest (NC) is an essential stem cell population of the vertebrate embryos that gives rise to various tissues in the body such as the cranial facial cartilage, peripheral nervous system and the Adrenal Medulla. NEUcrest focuses on integrating academic, clinical and industrial research for a better understanding of neural crest development and neural crest related diseases called Neurocristopathies. These pathologies are a major group of congenital diseases in human, and a heavy societal concern. The NEUcrest network comprises 20 partners in academia, industry and hospitals from seven European countries, gathered in a synergistic effort to advance knowledge and outreach about these diseases.

The adrenal gland is derived from NC and mesodermal lineages. Disorders of the adrenal glands can lead to congenital neuroendocrine anomalies, autoimmune disease, neurocristopathies and tumors such as neuroblastoma. The embryology of this organ has not been well-studied; therefore, it has been difficult to correlate developmental gene-function interactions and identify novel disease variants.

Job Description/Duties:

In the 'NEUcrest' project, the student will:

1. determine a temporal and spatial map of the development of the adrenal gland during Xenopus embryogenesis including how the NC contributes to its development.
2. generate novel assays for gene discovery and function of diseases associated with the adrenal gland. Potential syndromes to look at include Allgrove syndrome and Von Hippel-Lindau syndrome. Assays will include gene knockdown by morpholino or CRISPR/Cas9 and measurement of adrenaline and noradrenaline levels.
3. carry out a small molecule enhancer/suppressor screen on an adrenal gland Xenopus model line generated by the student.

The student will gain skills in molecular biology, embryology, in vivo biology and chemical biology. In addition, training for transferrable scienceskills, such as outreach and industrial management, are deeply embedded in the ITN programme.

This project is awarded with a 3-year PhD scholarship through the Horizon 2020 Marie Skłodowska-Curie Actions - Innovative Training Networks (ITN) Programme (No. 860635, pending Grant Agreement Signature). The applicants are eligible to apply if the have not been based in the UK for more than 12 months in the last 3 years. Remuneration will be in line with the Marie Skłodowska-Curie guidelines (Early Stage Researchers, ITN). For programme, funding information and eligibility criteria please visit:
https://ec.europa.eu/research/participants/data/ref/h2020/other/guides_for_applicants/h2020-guide-appl-msca-itn_en.pdf

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HORIZON 2020

Marie Skłodowska-Curie Actions

Tuition fees are covered for UK/EU rate only (£4,327 2019/20 rate). A living salary will be provided for each year of the scholarship.

Qualifications/Skills required:
First degree in Biological sciences, Cell Biology, Genetics, and Molecular Biology
The standard minimum entry requirement is 2:1

Essential Requirements:

- **Master degree in the related biology field**;
- Strong experience in molecular biology.
- Training validated by internships and written reports (at bachelor and master level);
- **Less than 4 years' full time equivalent research experience and has not yet been awarded a doctoral degree (PhD)**
- **Resided less than 12 months in the UK in the last 3 years**
- Excellent communication and organisation skills
- Fluent in spoken and written English
- Excellent writing and presentation skills
- Flexibility and ability to work in a team environment
- Availability to travel nationally and internationally two to three times a year.

Salary: The remuneration will be in line with the European Commission rules for Marie Skłodowska-Curie grant holders (Early-Stage Researchers, Initial Training Network).
http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-msca_en.pdf

Start date: Position is available from October 2020

To Apply:
Please apply via https://euraxess.ec.europa.eu/jobs/499751

Closing date for receipt of applications is 11.00 pm, 30th April 2020

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

Personal data disclaimer**:** *Please note that in order to demonstrate fair equal recruitment and to provide statistical data on the recruitment for MSCA program, NEUcrest management team may need to retain the following personal data of all applicants: full name, gender, nationality, copy of the CV.*
In this case data will be preserved till maximum up to 5 years after the termination of the NEUcrest grant.
By applying for the advertised positions the applicant automatically gives the authorization to store his/her personal data.
The applicant may refuse, without having to give any explanations, the preservation of the data. In this case he/she needs to inform about it the management team of NEUcrest consortium upon submitting the application or sending a request at daria.barsuk@curie.fr or neucrest@gmail.com.
This disclaimer solely expresses the needs of the NEUcrest consortium and not the recruiting institution – The University of East Anglia.

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