

QUEEN'S UNIVERSITY BELFAST

Call for Post Doctoral Researcher to work on a project in the area of:

“Endocrine disruptors – Environmental and food chain contaminants posing a modern day health risk”

Summary

The Endocrine Disruptor Research Group within the Institute for Global Food Security at Queens University Belfast is calling for a researcher to join with them in a Marie Curie Individual Fellowship proposal. This ‘Marie-Curie Action’ aims to support experienced researchers at various stages of their career, helping them in acquiring new research skills (multi or interdisciplinary) or to undertake intersectoral experiences and developing their careers.

Description of the project:

Endocrine disruptors are toxic compounds which present a major health problem in every society. Contamination of the environment and food chain occurs via many sources including man-made (pesticides, plasticisers, chemical waste and drugs) and natural compounds (mycotoxins, algal toxins and phytoestrogens). The body's own endocrine (hormones) system and nuclear receptors regulate critical cellular processes such as cell growth and differentiation and metabolic processes. Endocrine disrupting agents are thus involved in many detrimental pathological processes. Health risks vary according to particular groups; adults (cancer and infertility), children (premature puberty, malformations of sexual organs, obesity and reduced intelligence). Bioaccumulation can occur from as early as in the womb and studies have linked the most damaging effects of these contaminants with exposure at early developmental stages. To date the majority of studies have focused on the effects of exposure to single contaminants. In reality we are exposed on a daily basis to a cocktail of low dose contaminants and the health risk from combined exposure has not been fully investigated. Extensive research efforts must be undertaken to assess the health risks posed by exposure to mixtures and the accumulative effects of these contaminants in our diet and environment. Horizon scanning, mechanistic analysis, fate and clean-up studies will also ensure protection of the environment and food chain.

Project plans may include any of the following aspects:

- Development of multi-parameter toxicological assays for the detection, mechanistic study and screening of endocrine disruptors and their mixtures.
- Implementation of physicochemical techniques to separate and identify endocrine disruptors.
- A survey of key foods and environmental samples for their endocrine disrupting profile.
- Environmental fate analysis and clean-up tools/studies.
- Characterisation of endocrine disruptor profiles for their health effects using cellular models.
- Surveillance of key clinical samples for similar profiles to investigate health concerns.

Who can apply?

Researchers of any nationality in possession of a doctoral degree, or with at least four years full-time equivalent research experience after obtaining the degree which allows them to embark on a doctorate.

What does the funding cover?

Funding is provided for two years (European Fellowship) or three years (Global Fellowship) in advanced training (including complimentary skills) on the basis of a “personal career development plan” established by the researcher with his/her personal supervisor in the host organisation. It also includes an attractive experience related salary for the researcher, transnational mobility and family allowances, a travel allowance and a contribution towards research-related costs.

Call details:

- **Ref:** H2020-MSCA-IF-2014
- **Weblink:** <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-msca-if-2014.html>
- **Deadline for expression of interest for participation:** 1st August 2014
- **Deadline of the call:** 11th September 2014
- **Anticipated start date:** 1st May/June 2015

For further information/application contact:

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