



Profiling Milk Fat Globule Membrane ingredients for composition and function

FHI CALL FOR APPLICANTS | MARIE CURIE CAREER-FIT PLUS

Following the successful Career-FIT programme, Enterprise Ireland is pleased to announce the launch of a new Marie Skłodowska-Curie COFUND aiming to award 50 prestigious Fellowships through two open calls for proposals in 2019 and 2020.

Career-FIT PLUS aims to enhance the training and mobility of **experienced researchers** through the undertaking of individually driven, industry-focused research training projects which will be interdisciplinary and focused on the domain areas of the eligible Technology Centres and Technology Gateways in Ireland.

Project Description

Building on previously completed research projects which have focussed on the characterisation and enrichment of milk fat globule membrane (MFGM) extracts from milk, this project would investigate the levels and functionality of specific MFGM components within certain Dairygold ingredients. During this project we aim to identify the optimum source of MFGM components and the most robust method for the isolation and enrichment of these MFGM constituents.

Considering the raft of information available on the health benefits of MFGM, we also propose to investigate the specific functionality of these constituents within Dairygold ingredients. In particular, we aim to assess their prebiotic and immune-modulatory effects, their ability to improve barrier function and provide protection from infection as well as promote the colonisation of health promoting bacteria in the gut.

Based on the outcomes of the research, we also plan to use the data generated to consider the commercial benefit of developing an MFGM enriched ingredient which could be included in the Dairygold product portfolio.

The fellowship has the potential for a postdoctoral scientist to:

- Work with a multi-disciplinary team to understand the functionality of Dairygold MFGM components
- Develop advanced competencies in performing bioassays and cell culture studies
- Work with the industrial team to apply this knowledge to new product development
- Work with the industrial team engaging with potential customers

Food for Health Ireland

At Food for Health Ireland (FHI), our goal is to enhance health and wellbeing through innovation in food. By combining world-class science with industry expertise, we ensure our industry members stay ahead in the global food market.

We have spent more than a decade cultivating an Innovation Ecosystem across Ireland that now brings together leaders in food and health research, industry, policy, marketing and investment.

Now in the third phase of our research development, FHI is continuing to improve

health through innovation in food, with a focus on key areas such as:

- Cardiovascular Health
- Gut Health
- Maternal Health
- Healthy Ageing

Teagasc – the Agriculture and Food Development Authority – is the national body providing integrated research, advisory and training services to the agriculture and food industry and rural communities. Teagasc's mission is to support science-based innovation in the agri-food sector and wider bio-economy that will underpin profitability, competitiveness and sustainability.



This is achieved through the close coupling of research and knowledge transfer in four programme areas:

- Animal and Grassland Research and Innovation
- Crops, Environment and Land Use
- Food
- Rural Economy and Development



Dr. Rita Hickey is a senior research officer in the Food Biosciences Dept. at Teagasc Food Research Centre, Moorepark. Rita was awarded a First class honours degree in Science from UCD and successfully completed her PhD research in Teagasc in 2003. She was subsequently employed as a Research Officer by the Alimentary Pharmabiotic Centre. Rita then worked for Abbott Diagnostics as a Process Specialist in Sligo before returning to Moorepark for her current role. Her main research interests focus on investigating the biological properties of sugars isolated from food sources. Rita was the lead PI on the FHI Infant Nutrition work package for Food for Health Ireland and was a funded PI on the SFI-funded Alimentary Glycobiology Research Cluster (AGRC).

Located in the rich fertile Golden Valleys of Munster, Dairygold has a long and proud history of producing quality-assured, sustainable gold standard cheese and dairy ingredients. With three imperative divisions that drive and support our farmers and business, we are able to offer clients and consumers full traceability, unrivalled quality and product excellence. Dairygold Food Ingredients has a strong research collaboration with the Teagasc Food Research Centre, both directly and through other innovation platforms. Our 90% Demineralised Whey Powder is manufactured to be suitable for the Infant Formula sector in one of the largest demineralised whey plants in the world. Dairygold is committed to improved dairy market returns for its stakeholders by producing and exporting milk products in a cost effective and sustainable manner.



Website:

<https://www.horizon2020.ie/career-fit-plus/>



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