

MSc POSITION AVAILABLE IN FOOD PRESERVATION



DESCRIPTION

Food for Health Ireland, University College Dublin

Food for Health Ireland (FHI; www.fhi.ie) is a recently created centre for functional food development funded by Enterprise Ireland (in conjunction with members of the Irish Food Industry). The FHI at UCD will consist of up to 30 individual scientists/postgraduate students working on the development of milk based Functional Foods targeting health areas which include early infant development, metabolic syndrome, immunity/infection and colorectal cancer. Research on the isolation, identification, characterization, formulation and validation of milk bioactives will form the basis of the Centre's multi-disciplinary research. FHI combines expertise from a number of national institutes and is located at University College Cork, **University College Dublin**, Teagasc – Moorepark Food Research Centre and University of Limerick.

Project Summary

As stated above, one of the objectives of FHI is the production of milk bioactives. To ensure the products containing the bioactive compounds are safe for use (from a microbial perspective) and to prevent microbial deterioration during shipping and storage, products must be preserved. From an economical perspective, particularly in respect of transport and storage, producing a dried end product would generally be the most desirable option. However, other preservation techniques (e.g. heat processes such as ultra high temperature (UHT) processing) may also be appropriate. Therefore it is critically important to screen a range of preservation options used to extend product shelf life in terms of their impact on the functionality of the bioactive compounds. In this project a series of lead functional compounds (LFCs) which have been produced on the Food for Health Ireland project, will be exposed to a range of traditional (e.g. spray drying, freeze drying, heat pasteurization, UHT, freezing etc.) and novel (e.g. high voltage pulsed electrical fields, ultrasound and high intensity light pulses) preservation strategies and the impact of these processes on the functionality of the LFCs will be established (*Note: The specific effect on bioactivity will be assessed by other team members.*)

Profile

Candidates should be enthusiastic, self motivated individuals, who will interact well within a larger research team. The successful candidate will register for a Masters degree.

Requirements

- A minimum of a 2.1 honours degree in Food Chemistry, Food Microbiology, Food Science/Food Technology or other appropriate disciplines.
- Experience and/or interest in chemical/microbial analysis and/or food preservation is also desirable.

Informal enquiries in relation to this position can be made to **Dr. James Lyng** (james.lyng@ucd.ie).

No relocation expenses will be payable on this appointment

Please send your applications to **Dr. Nessa Noronha**, Research Manager, Food for Health Ireland (nessa.noronha@ucd.ie) University College Dublin, Belfield, Dublin 4, Ireland

Closing date 7th February 2011