

PREDOCTORAL GRANT AVAILABLE AT MOBIOFOOD RESEARCH GROUP

bioactivity-food.recerca.urv.cat

Grant Code 2018PMF-PIPF-12

Project Title: "Preventive long-lasting effects of food bioactives on gastrointestinal tract under metabolic homeostatic challenges: obesogenic diet and aging"

Project description:

The group's research objectives are oriented towards studying the bioactivity of natural components of food, through its direct action on the gastrointestinal tract and the possible applicability of these results to improve health. This project is focused on determining the effectiveness and mechanisms by which flavanols act in the long term on the barrier and immunoprotective function of the gastrointestinal tract by improving the metabolic homeostasis distorted by obesogenic diets and/or aging.

Results of our research group derived from the previous project indicate that subchronic treatments with proanthocyanidins may act as preventive against metabolic alterations induced by an obesogenic diet and that such effects are extended over time beyond the end of their administration. From these preliminary results and the recent bibliographical evidences, we hypothesized that "extracts rich in proanthocyanins, through their interaction with the gastrointestinal tract, could affect the organism functionality in a prolonged way, preventing loss of metabolic flexibility associated with metabolic challenges of high incidence in the current population, obesogenic diets and/or aging". We expect that the description of these "memory effects" will complement the information we have about products that can be applied in the field of functional foods and nutraceuticals, and therefore provide valuable information that could lead to a new patent on different conditions of use of this extract for regulation of metabolic homeostasis.

In addition, we aim to exploit our increasing expertise on gastrointestinal effects of food components by a preliminary exploration of the proteins of insect origin. These are food components that are on the spot as possible incorporation to our market as human food, which might have effects through the gastrointestinal tract but are unexplored at the moment. We propose to initiate the evaluation of the bioactivity of insect protein sources on the barrier and immune function on human colon.

Candidate requirements:

- ✓ Highly motivated student with special interest in the research areas of Metabolism Regulation and Nutrition.
- ✓ Degree in Biology, Biochemistry or related life sciences.
- ✓ Master in Biosciences at the point of enrollment.

Grant characteristics:

<https://www.sgr.urv.cat/cgi-bin/programes/application/detall.cgi?conv=2018PMF-PIPF-&ordre=12&idioma=CAT>

Deadline: 10th June 2018

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If interested, please email us your detailed CV, a brief statement of research experience and interests.