Full4Health

www.full4health.eu

Understanding the physiological mechanisms behind our feelings of hunger and satiety ('feeling full') may hold the key to dealing with the problem of over-eating that is so prevalent in Western Europe. It is also an important issue with respect to loss of appetite in the elderly. It is known that the interactions between the gut and the brain play a major role in these sensations, but interestingly the actual role of food in modifying these interactions is not well understood.

The Full4Health project brings together 19 of Europe's best academic and industry labs to enable a multidisciplinary approach to studying the mechanisms of hunger and satiety and food choice, and how these change across the life course. The effects of dietary components and food structure will also be investigated to provide a comprehensive understanding of the potential for using food to control caloric intake.

The five year programme will receive funding from the EU of €9 million and is being coordinated by the University of Aberdeen, Rowett Institute of Nutrition and Health.

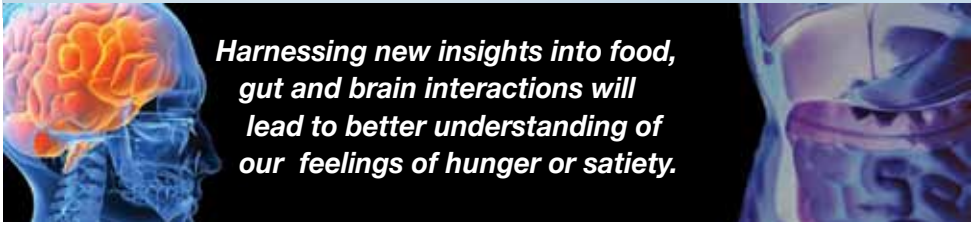
Contacts:

Project Coordinator: Professor Julian Mercer
j.mercer@abdn.ac.uk

Project Manager: Dr Tehmina Amin
t.amin@abdn.ac.uk

Dissemination : Dr Sue Bird
sue.bird@abdn.ac.uk

This Project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 266408



Harnessing new insights into food, gut and brain interactions will lead to better understanding of our feelings of hunger or satiety.

www.full4health.eu

Key areas of novel research in this project include:

- a dietary intervention which will compare, for the first time in a single study, psychological, physiological, hormonal and brain responses to food in children, adolescents, adults and the elderly.
- the involvement of food in communication flow between the gut and the brain, with respect to energy balance and appetite control.
- the roles of gut hormones, the vagus nerve, and regulatory centres in the brain in hunger and satiety responses to food.

Relevance to policy

The potential to manipulate the mechanisms of hunger and satiety through diet is directly relevant to any policy concerned with obesity, since that condition is largely driven by over-consumption of food. Supporting adequate nutrition in particular clinical circumstances and in the elderly is also a growing concern. The outputs from this project will therefore address vulnerable sectors of the population such as children and the elderly. The results from the project have the potential to enable the development of novel diets, food or supplements, founded on a sound evidence base.

The project partners are:

- University of Aberdeen, Rowett Institute of Nutrition and Health, UK
- Harokopio University, Athens, Greece
- University of Leeds, UK
- University of Utrecht, The Netherlands
- NUTRIM, University of Maastricht, The Netherlands
- University of Cambridge, UK
- The Sahlgrenska Academy, University of Gothenburg, Sweden
- Norwegian University of Science and Technology,Trondheim, Norway
- University of Edinburgh, UK
- University of Lille 2, Inserm, France
- Encap Drug Delivery, UK
- University of Koln, Germany
- Panum Institute, University of Copenhagen, Denmark
- Danone Research, The Netherlands
- University of Wageningen, The Netherlands