Personalised Nutrition: An integrated analysis of opportunities and challenges.
About Food4Me

The complete mapping of the human genome sequence introduced the possibility of individualised medicine. Such customisation can be applied to nutrition, a key health determinant, to tailor dietary advice according to an individual’s physical and genetic make-up. However, the promise of personalised nutrition has failed to develop as a commercial service, and matching dietary advice to genetic profiles has proven difficult. There is a need to comprehensively analyse the opportunities and challenges in the field of personalised nutrition.

Food4Me is an EU (FP7) funded project which aims to address these concerns. It will report on the current knowledge of personalised nutrition, investigate consumer attitudes, and develop new scientific tools for implementation. Food4Me’s international group of experts seek to answer the question, “how can we best use our current understanding of food, genes, and physical traits to design healthier diets tailored for each individual?”

Why Personalised Nutrition?

Research shows that individuals may respond differently to various nutrients. For example, omega-3 polyunsaturated fatty acids, the “healthy fats” found in oily fish, have been found to be more beneficial in individuals with a particular genetic make-up. Such research suggests that overarching dietary guidance is not the most effective technique for improving public health.

Personalised nutrition sets the individual apart to consider their specific physical and genetic characteristics. The emerging field of “nutrigenomics” is examining the relationships between food and gene expression. A personal approach to diet could have significant potential to improve public health.
Food4Me has two strategic objectives:

- Determine the best-practice application of personalised nutrition, through development of suitable business models, research on technological advances, and validation of delivery methods for nutrition advice.

- Compile current scientific knowledge and consumer understanding of personalised nutrition — including communication strategies and ethical boundaries — to be shared with the EU institutions, the food industry, and other stakeholders.

What will Food4Me achieve?

- Assess the prospects and challenges for future personalised nutrition business models, in collaboration with all stakeholders (the food industry, the media, health insurers, patient groups, retailers, regulatory authorities, dietetics and medical groups and scientists).

- Develop new scientific tools that use dietary, genetic, and phenotypic data for tailored nutrition recommendations.

- Validate the impact of different levels of nutrition advice (dietary, phenotypic and genetic) to consumers, using the results from a large study in 8 EU countries.

- Characterise consumer attitudes and beliefs to all aspects of personalised nutrition.

- Describe the ethical and legal dimensions of personalised nutrition.

- Propose best-practice guidelines for communicating about individualised dietary advice.

www.food4me.org
Partners

The Food4Me consortium is a team of experts in the fields of biological sciences, consumer studies, marketing, business development, IT and technology, ethical and legal industry, and communication from 13 EU Member States.

- Biosense, Switzerland
- Creme Software LTD, Ireland
- DSM Nutritional Products Ltd, Netherlands
- European Food Information Council, Belgium
- Harokopio University, Greece
- Högskolan för lärande och kommunikation i Jönköping–HLK School of Education and Communication, Sweden
- Instytut Żywności i Żywienia, Poland
- Keller and Heckman LLP, United States
- Lunds Universitet, Sweden
- Nederlandse Organisatie Voor Toegepast Natuurwetenschappelijk Onderzoek, Netherlands
- Philips Electronics Nederland B.V., Netherlands
- Philips Electronics UK Limited, United Kingdom
- Stichting Dienst Landbouwkundig Onderzoek, Netherlands
- Technische Universität München, Germany
- The University of Reading, United Kingdom
- Universidad de Navarra, Spain
- Universidade do Porto, Portugal
- Universiteit i Oslo, Norway
- University College Dublin, National University of Ireland, Ireland
- University of Maastricht, Netherlands
- University of Newcastle Upon Tyne, United Kingdom
- University of Ulster, United Kingdom
- Vereniging European Nutrigenomics Organisation, Netherlands
- VITAS AS, Norway
- Wageningen Universiteit, Netherlands

www.food4me.org

Project Manager contact details:
Professor Mike Gibney, Director
Institute of Food and Health, University College Dublin, Ireland
Mike.Gibney@ucd.ie

Food4Me – “Personalised nutrition: An integrated analysis of opportunities and challenges” receives research funding from the European Community’s Seventh Framework Programme (Contract no 265494).