ILSI Europe
International Life Sciences Institute

ILSI Europe Scientific Portfolio

Gut Microbiota & Health

Today, over 60% of functional food products focus on improving digestive health, with prebiotics and probiotics probably being the most common worldwide. Probiotics and prebiotics target the host through the gut by distinct as well as complementary mechanisms of actions.

PREBIOTICS

A prebiotic is a food ingredient selectively stimulating growth of microbial species in the gut microbiota that confers health benefits to the host. Some prebiotics occur naturally in foods such as chicory, cereals, agave and milk; however, most foods contain only trace levels. ILSI Europe is at the forefront to further develop the concept of prebiotic effects.

Structure-Function Relationship for Prebiotic Compounds

Prebiotic compounds show a wide variability in terms of structure and effects on the gut ecology (microbiota composition and activity) and so consequently of beneficial effects on the host. ILSI Europe's experts aim to identify the specific characteristics of the prebiotic structure that have effects on the gut ecology. The activity will produce recommendations on how to better characterise prebiotics with respect to specific physiological effects.

Status: Manuscript in preparation

PROBIOTICS

Probiotic bacteria may be defined as 'live micro-organisms which, when administered in adequate amounts, confer a health benefit on the host' (FAO/WHO 2001). Therefore, consumers, the scientific community and the food industry show an increasing interest in these microorganisms.

Mechanisms of Probiotic Action

There is a general consensus in the probiotic scientific community that specific probiotic strains have documented health benefits. However, their mechanisms of action often remain unclear. ILSI Europe is investigating the current knowledge about the mechanisms of probiotics action in relation to demonstrated (clinical) benefits.

Status: Completed

ORAL & GUT MICROBIOTA

Not only the gastrointestinal microbiota seems to play a major role in quality of life. There is also increasing evidence of a link between the oral environment and systemic health. ILSI Europe is investigating the impact of oral and gut microbiota on health.

Oral & Systemic Health Resilience

Oral health has been acknowledged to have an impact on overall quality of life and may be related to systemic health. The links between oral and systemic health are currently being explored, and ILSI Europe is taking the lead in pursuing this cutting-edge research. This activity will create the scientific evidence base for subsequent clinical confirmation of health claims both on oral and systemic health.

Status: Three manuscripts in preparation

Microbiome Human Study Research Guidance

The microbiome research field currently experiences issues with study repeatability, comparable outcomes and inconclusive results across studies due to variations in study design and methods applied to characterise the microbiome and confounders such as diet and geography. The activity will identify specific confounding factors that should be considered in relation to microbiome-related outcomes and propose ways to optimise study design and methodologies to achieve physiologically meaningful results.

Status: Manuscript in preparation

Short Chain Fatty Acids (SCFAs)for Health

SCFA production from prebiotic consumption is considered as a part of the mechanism by which prebiotics exert beneficial effects on gut health and metabolic function. SCFAs also exert positive local and systemic physiological effects. It is intended to evaluate whether SCFAs can be considered as a health benefits or markers by providing scientific evidence of their beneficial actions.

Status: Manuscript in preparation

Nutrition Security & Societal Aspects

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Food choice is a dietary behaviour influenced by many different determinants, like hunger, appetite, taste, cost of food, education level, culture, mood, stress and attitudes, beliefs and knowledge about food.

NUTRITION SECURITY & SOCIETAL ASPECTS

Consumer science, societal aspects and sustainability are ever-expanding fields. If we do not know enough about consumer behaviour, risk perception and the drivers influencing consumer preferences, then we cannot learn how to effectively encourage consumers to choose healthier diets and more sustainable practices. Societal aspects and sustainability are linked together with consumer science as it is becoming more and more important to provide enough, healthy and safe food to a growing population. Consumer preferences are also determined by environmental and societal aspects. Therefore, all these topics have to be considered through a more holistic approach.

Nudging Consumers Towards Healthier Food Choices

Unhealthy food choices and related behaviours are currently driving increased rates of obesity in Europe, with concomitant increases in the incidence of non-communicable diseases. Several strategies are used to move consumers towards healthier choices. One among them is nudging, a concept promoting the idea that positive reinforcement and indirect suggestion will influence the decision making of groups and individuals in a more sustainable way than other interventions.

The proposed activity aims to systematically review the existing evidence base regarding short and long term impacts of nudging, and to identify gaps in knowledge where these exist. Suggestions for further research will be made where appropriate. Ultimately, this project will lead to a greater understanding about the potential role of the psychological and cultural determinants of food choice in the context of nudging theory.

Status: Manuscript in preparation

EU Project SUSFANS

Strengthening food and nutrition security in the European Union is a key objective of the Horizon 2020 SUSFANS 'Metrics, Models and Foresight for European SUStainable Food and Nutrition Security'.
This project offers stakeholders a new and exciting opportunity to participate in investigating the impact of policies on consumer choice and subsequent implications for nutrition and public health in the European Union.
The 1st Stakeholder Core Group (SCG) Workshop was held in October 2015, in Prague, Czech Republic, the 2nd SCG Workshop was held in October 2016, in Brussels, Belgium, and the 3rd SCG Workshop was held in September 2017 in Vienna, Austria.

Status: Completed

EU Project FIT4FOOD2030

To support the European Commission in the development and implementation of the FOOD 2030 policy framework and its action plan, FIT4FOOD2030 aims to establish a sustainable multi-stakeholder, multi-level platform, mobilizing a wide variety of stakeholders at the level of cities, regions, countries, and Europe. Further, the role of research and innovation in bringing about changes in the EU food systems will be assessed. ILSI Europe supports the project in investigating trends, barriers and showcases in the EU innovation sphere, in disseminating the project work and in building the FOOD2030 Platform.

Status: On going