

# 5<sup>th</sup> EUROPEAN SUMMER SCHOOL IN NUTRIGENOMICS

June 18-21, 2024

Hotel City, Lungomare Dante Alighieri 14, 60019 Senigallia (AN), Italy

**18 June 2024** – 14:30-18:30

14:00-15:00 Registration

15:00-15:15 Welcome

*Chairs: Rosita Gabbianelli and Michael Muller*

## ***1. Introduction to nutri-epigenomics: new discoveries for healthy life***

15:15-16:00 *(Mitochondrial) Metabolism versus nutriepigenome: chicken or egg?* **Wim Vanden Berghe**, Department of Biomedical Sciences, University Antwerp, Belgium

16:00-16:45 *Nutri-epigenomics: Lessons Learned, Limitations Defined and Perspectives to be setup*, **Melita Vidakovic**, Institute for Biological Research, Belgrade, Serbia

16:45-17:15 **Coffee break**

## **Selected oral talks**

17:15-17:40 *The Role of (Poly)phenols in Managing Diabetes: Understanding their Effects and Mechanisms of Action*, **Maria Inês Farrim**, Universidade Lusófona's Research Center for Biosciences & Health Technologies, Lisboa, Portugal

17:40-18:05 *Vitamin D-Mediated Modulation of Innate Immunity in Healthy Individuals: Insights from an In Vivo Study*, **Ranjini Ghosh Dastidar** Institute of Animal Reproduction & Food Research, Polish Academy of Sciences, Olsztyn, Poland

## **Short talks**

18:05-18:15 *Grape Seed Proanthocyanidin Extract (GSPE) is able to resynchronize circadian hormones in plasma*, **García-Aranda Alba**, Nutrigenomics Research Group, Department of Biochemistry and Biotechnology, Universitat Rovira i Virgili, Tarragona, Spain

18:15-18:25 *Investigating the role of the gut in fructose induced glucose intolerance*, **Eya Sellami**, Laval University, Quebec City, Canada

19:00 **Welcome party and networking at Scalo Zero Pizzeria**

**19 June 2024** – 9:00 -18:30

*Chairs: Wim Vanden Berghe and Carsten Carlberg*

## ***2. Environmental epigenetics: from early life to aging***

9:00-9:45 *Early programming by an adverse environment - from mouse models to first human data*, **Torsten Plosch**, Dept. Obstetrics and Gynaecology, Groningen, The Netherlands

9.45-10.30 *Fueling the future: Nutritional Programming of Later Life Health*, **Louise Harvey**, Nutrition Metabolism and Functional Nutrients Medical and Nutritional Science, Nutricia Research, Utrecht, Netherlands

10:30-11:00 Coffee break

### Selected oral talks

11:00-11:25 *Identification of prognostic DNA methylation changes in metabolic dysfunction associated steatotic liver disease*, **Evelien Van Dijck**, University of Antwerp - Center of Medical Genetics, Belgium

11:25-11:50 *Nuclear-specific propionyl-Coenzyme A metabolism regulates histone propionylation*, **Yuen Jian Cheong**, Epigenetics and Signalling programme, Babraham Institute, Cambridge, United Kingdom.

### Short talks

11:50-12:00 *Partial replacement of maltodextrin with galactose in a post-weaning diet improves body composition and energy metabolism in early life in a mouse model*, **Sun Peixin**, Human and Animal Physiology, Wageningen University and Research, The Netherlands

12:00-12:10 *The effects of non-soy legume consumption on serum levels of inflammatory biomarkers and Adiponectin in overweight/obese adults: a systematic review and meta-analysis of Randomised Controlled Trials*, **Fatemeh Mansouri**, School of Advanced Studies, University of Camerino, Italy

12:10-12:20 *Investigating the nutrigenomic and anti-inflammatory properties of cioccorito chickpeas in an intestinal epithelium model*, **Gaia de Simone**, School of Advanced Studies, University of Camerino, Italy

12:20-12:30 *Impact of quercetin metabolites on glucose and lipid metabolism in mature adipocytes*, **Marco Rendine**, Division of Human Nutrition, Department of Food, Environmental and Nutritional Sciences (DeFENS), University of Milano, Italy

12:30 Lunch at Hotel City

15:00-15:45 *Metabolic and Reproductive Diseases: Role of Early Life Exposures and Epigenetic Changes*, **Carlos Guerrero Bosagna**, Department of Organismal Biology, Physiology and Environmental Toxicology, Uppsala University, Uppsala, Sweden

15:45-16:30 *Reading health and nutrition history in the epigenome*, **Ferdinand Von Meyenn**, Laboratory of Nutrition and Metabolic Epigenetics, Institute for Food, Nutrition and Health, Department of Health Sciences and Technology, ETH Zurich, Zurich, Switzerland

16:30-17:00 Coffee break

### Selected oral talks

17.30-17.55 *In vitro study of the effect of LA9498, a novel HDAC3 inhibitor, on adipocyte and macrophage phenotype*, **Sara Villa**, Dipartimento di Scienze Farmacologiche e Biomolecolari, University of Milano, Italy

17:55-18:20 *Effect of methylglyoxal on intestinal cells: possible molecular mechanisms*, **Camilla Morresi**, Department of Life and Environmental Sciences (DISVA), UNIVPM, Ancona, Italy

18:30 Discover Senigallia

**20 June 2024** – 9:00 -17.00

*Chairs: Carlos Guerrero Bosagna and Torsten Plosch*

### **3.Nutrigenomics and gut microbiota**

9:00-9:45 *The impact of nutrition and the role of the gut microbiota for the gut-brain axis*, **Michael Müller**, University of East Anglia, Norwich, United Kingdom

9:45-10:30 *Nutrition, intestinal microbiota and barrier as modulators of the development of liver diseases*, **Ina Bergheim**, Department of Nutritional Sciences, University of Vienna, Austria

10:30-11:00 Coffee break

11:00 Group Photo

### **Selected oral talks**

11:15-11:40 *Diet interaction with gut & vaginal microbiome profiling on blastocysts formation*, **Salma Hayder Ahmed**, Translational Medicine Department, Research Department, Sidra Medicine, Doha, Qatar

### **Short talks**

11:40-11:50 *Effect of a lifestyle intervention on glucose, diet, and gut microbial composition in postmenopausal women with previous breast cancer*, **Alessia Bartolacci**, Department of Biomolecular Science, University of Urbino Carlo Bo, Italy

11:50-12:00 *The role of gut microbial metabolites in mediating the heterogeneity of effects of dietary fibre on markers of colorectal cancer risk*, **Jiemin Fan**, Human Nutrition & Exercise Research Centre, Faculty of Medicine Sciences, Population Health Sciences Institute, Newcastle University, UK

12:00-12:10 *Effect of TMA excess on intestinal barrier functions*, **Giulia Feliziani**, School of Advanced Studies, University of Camerino, Italy

12:10-12:20 *Using Mobile Phones while Eating or Preparing Food: recipe for microbial contamination*, **Lotti Tajouri**, Bond University, Gold Coast, Australia.

12:30 Lunch at Hotel City

14:45-15:30 *The role of the microbiome in the first 1000 days of life*, **Omry Koren**, Azrieli Faculty of Medicine, Bar-Ilan University, Safed, Israel

### **Selected oral talks**

15:30-15:55 *A preclinical study on the role of prebiotic and probiotic administration in preventing beta-amyloid deposition in the brain of Alzheimer' Disease transgenic mice*, **Giorgia Sarti**, University of Florence, Italy

15:55-16:20 *Revealing the Association of Microbiome and Patient Genetic Profiles in Obesity for Innovative Nutritional Supplements and Recommendations*, **Ozge Onluturk Aydogan**, Department of Bioengineering, Faculty of Engineering, Marmara University, Turkey

16:20-16:50 Coffee break

17:00 Visit to the Casalfarneto winery and social dinner

**21 June 2024** – 9:00-12:15

*Chairs: Melita Vidakovic and Laura Bordoni*

#### **4. Nutrigenomics in longitudinal large-scale studies**

9:00-9:45 *In vivo responses to vitamin D: impact of the response index*, **Carsten Carlberg**, Institute of Animal Reproduction and Food Research, Polish Academy of Sciences in Olsztyn, Olsztyn, Poland

#### **Short talks**

9:45-9:55 Comparison of the effect of nucleic acids isolated from raw and fried meat products on cells of the human digestive tract in vitro, **Anna Koscielak**, Technology and Biotechnology of Food, Faculty of Chemistry, Gdańsk University of Technology, Poland

9:55-10:05 *Phyto-chemical analysis of the different populations of Sicilian Sumac (*Rhus coriaria L.*)*, **Arianna Caprodossi**, Chemistry Interdisciplinary Project (Chip), School of Pharmacy, University of Camerino, Italy

10:05-10:15 *Determinants of food choices: implications on health status*, **Maria-Flavia Mareş**, “Iuliu Hatieganu” University of Medicine and Pharmacy, Cluj-Napoca, Romania

10:15-11:00 Coffee break and reviewers' board meeting

11:00-11:45 *Endocrine disruptors and food safety-a temporal perspective*, **Valentina Domingues**, REQUIMTE/LAQV, ISEP, Polytechnic of Porto, Portugal.

11:45-12:00 Best oral and best short talk awards

12:00-12:15 Farewell