



# Summer School on Nutrigenomics

1<sup>st</sup> - 5<sup>th</sup> September 2014  
Camerino, Italy - Palazzo Ducale, Sala della Muta



The Summer School is open to students and researchers interested in issues related to the interaction between nutrients and the (epi-)genome. The programme includes topics ranging from molecular nutrition, genomics, genetic polymorphisms and responses to diet, epigenetics and nutrients, nuclear receptors and nutrition, early nutrition and long-term effects, nutrigenomics and cancer

Monday, 1<sup>st</sup> September

14.00	Registration
15.00	Welcome
15.30	Chair: <b>Marianne Rots, Stefano Lorenzetti</b> <b>Opening Plenary Lecture</b> <b>Michael Müller</b> Nutrigenomics and Systems Nutrition, Norwich Medical School, University of East Anglia, Norwich, England <i>The use of molecular nutrition and nutrigenomics research to understand metabolic plasticity and health</i>
16.30	<b>Session 1:</b> <b>Gene Transcription and responses to diet</b> Chair: <b>Ina Bergheim, Torsten Plösch</b>
16.30	<b>Sascha Sauer</b> , Nutrigenomics and Gene Regulation, Max-Planck-Institute for Molecular Genetic, Berlin, Germany <i>Analysing transcriptional landscapes of dietary molecules</i>
17.15	Coffee break*
17.45	<b>Valerio Napolioni</b> , Innovation Pole for Genomics, Genetics and Biology, Perugia, Italy <i>Gene-diet-disease interactions and personalized medicine</i>
18.30	<b>Francesco Galli</b> , University of Perugia, Laboratory of Nutritional and Clinical Biochemistry, University of Perugia, Italy <i>What genes and metabolites can tell us about healthy lifestyles? The MEDINET project</i>
19.15	<b>Discussion</b>
20.00	Welcome party*
21.30	Social event

Tuesday, 2<sup>nd</sup> September

8.45	<b>Session 2:</b> <b>Epigenetic reprogramming by nutrition</b> Chair: <b>Michael Müller, Josep Jimenez Chillaron</b>
8.45	<b>Marianne Rots</b> , Epigenetic Editing, Dept Pathology and Medical Biology, University Medical Center Groningen, Groningen, The Netherlands <i>To mimic and reverse epi-mutations by Epigenetic Editing</i>
9.30	<b>Clarissa Gerhauser</b> , Epigenomics and Cancer Risk Factors, German Cancer Research Centre, Heidelberg UMCG, Germany <i>Nutri-Epigenomics and Cancer Prevention</i>
10.15	<b>Marcin Wojewodzc</b> , University of Birmingham, School of Biosciences, Birmingham, United Kingdom <i>Seeking for Transgenerational Effects (Maternal Effects vs Epigenetics) of Diet Quality in Clones - Ecophysiological and RNA-seq approaches</i>
10.30	<b>Karoline Meyer</b> , University Medical Center Groningen (UMCG), Groningen, The Netherlands <i>Lifestyle factor smoking: Effects on Prenatal Programming?</i>
10.45	Coffee break*
11.15	<b>Session 3:</b> <b>Interaction of Bioactive Food Components with Genes</b> Chair: <b>Barbara T Alexander, Marianne Rots</b>
11.15	<b>Ina Bergheim</b> , Department of Nutritional Sciences, Model Systems of Molecular Nutrition, Friedrich-Schiller-University Jena, Germany <i>Non-alcoholic fatty liver disease (NAFLD): Interaction of nutrition, gut and liver</i>
12.00	<b>Giovanni Scapagnini</b> , University of Molise, Campobasso, Italy <i>Modulation of Nr1h2/ARE pathway by food polyphenols: a nutritional neuroprotective strategy for cognitive and neurodegenerative disorders</i>
12.45	<b>Discussion</b>
13.00	Lunch*
14.30	<b>Claudia Nunes Dos Santos</b> , IBET and ITQB, Oeiras, Portugal <i>Potential of berries polyphenols for preventing age-related neurodegeneration: omics insights</i>
15.15	<b>Gary Williamson</b> , Functional Foods Research section: Food Chemistry and Biochemistry at School of Food Science and Nutrition of University of Leeds, UK <i>Interaction of polyphenols with transporters: consequences for cellular metabolism</i>
16.00	Coffee break*
16.30	<b>Zohar Karem</b> , Food Chemistry, Institute of Biochemistry, Food Science and Nutrition, Robert H. Smith Faculty of Agriculture, Food and Environment The Hebrew University of Jerusalem, Israel <i>From fatty acids to sterols - extra virgin olive oils</i>
17.15	<b>Petra Matoušková</b> , Charles University in Prague, Czech Republic. <i>Effect of green tea catechins on obesity-induced microRNAs and their involvement in selected enzymes regulation</i>
17.30	<b>Marcelo L Ribeiro</b> , Sao Francisco University, Bragança Paulista, UNICAMP,Campinas, SP- Brazil <i>Yerba mate (Ilex paraguariensis) effects on the expression of genes and miRNAs associated with adipogenesis</i>
17.45	<b>Discussion</b>
18.00	<b>Poster session</b>
19.00	Dinner*
20.45	Cultural event, Camerino by night: guided visit of Camerino

Wednesday, 3<sup>rd</sup> September

8.45	<b>Session 4:</b> <b>Epigenesis: state-of-the-art in epigenetics, by Epigenesis members</b> Chair: <b>Barbara T Alexander, Sascha Sauer</b>
8.45	<b>Josep Jimenez Chillaron</b> , Endocrine Division, Hospital Sant Joan de Déu Fundació Sant Joan de Déu, Barcelona, Spain <i>Early nutrition and long-term programming of diabetes: Potential role of epigenetics</i>
9.30	<b>Torsten Plösch</b> , Dept Obstetrics and Gynaecology, University Medical Center Groningen, The Netherlands <i>Epigenetic consequences of maternal under- and overnutrition</i>
10.15	<b>Marco Boks</b> , Brain Center Rudolf Magnus, Utrecht, The Netherlands <i>Understanding the biology of nutritional risk for schizophrenia; exploring the epigenetic marks of maternal famine</i>
10.30	<b>Veronica Valli</b> , University of Bologna, Cesena, Italy <i>Investigating adipocytes differentiation: DNA methylation status, proadipogenic gene expression, and inhibition by food bioactives</i>
10.45	Coffee break*
11.15	<b>Keynote lecture: Barbara T Alexander</b> , Medical Centre University of Mississippi, Jackson, U.S.A. <i>The impact of nutritional insults during fetal life on blood pressure</i>
12.15	<b>Cinzia Nasuti</b> , University of Camerino, Italy <i>Early life pesticide exposure and long-term health effects</i>
13.00	<b>Discussion</b>
13.15	Lunch*
15.00	<b>Session 5:</b> <b>Nutrigenomics and cancer</b> Chair: <b>Clarissa Gerhauser and Inga C. Teller</b>
15.00	<b>Ramona Suharoschi</b> , University of Agricultural Sciences and Veterinary Medicine of Cluj-Napoca, Romania Faculty of Food Science & Technology Institute of Life SciencesMolecular Nutrition Lab - (Genomics&Proteomics), Cluj, Romania <i>Advanced Analytical Techniques for Nutrigenomics in Nutritional Intervention. Perspectives in Personalized food / Personalized nutrition</i>
15.45	<b>Wim Van den Berghe</b> , Department Biomedical Sciences - University Antwerp PPES lab Protein Science, Proteomics & Epigenetic Signaling Campus Drie Eiken, Wilrijk (Antwerp) Belgium <i>Epigenetic impact of dietary phytomolecules in cancer &amp; cardiovascular disease: lifelong remodeling of our epigenomes</i>
16.30	Coffee break *
17.00	<b>Maria Streber</b> , INCMNSZ, Mexico City, Mexico <i>Development of spontaneous neoplasms in a model of Maternal Protein Restriction (MPR)</i>
17.15	<b>Marie Pier Scott-Boyer</b> , The Microsoft Research - University of Trento Centre for Computational and Systems Biology (COSBI), Rovereto (TN), Italy <i>A network view of cofactor - enzyme interactions in human nutrition</i>
17.30	<b>Discussion</b>
17.45	<b>Poster Session</b>
19.00	Dinner*
21.30	Social event

Thursday, 4<sup>th</sup> September

8.45	<b>Session 6:</b> <b>Gene-nutrient interactions, metabolic syndrome and cardiovascular diseases</b> Chair: <b>Wim Van den Berghe, Ramona Suharoschi</b>
8.45	<b>Ram Reifen</b> , Research Center for Nutrigenomics and Functional Foods, The Hebrew University of Jerusalem, Jerusalem, Israel <i>Nutrigenomics, vitamin A and child nutrition</i>
9.30	<b>Laura Silvestri</b> , Regulation of Iron Metabolism Unit, Div. Genetics and Cell Biology, UniSR - San Raffaele Scientific Institute, Milan, Italy <i>Regulation of iron homeostasis in physiologic and pathologic conditions</i>
10.15	<b>Kevin Dalggaard</b> , Max-Planck-Institute of Immunobiology and Epigenetics, Germany <i>Trim28 haploinsufficiency induces stochastic epigenetic obesity</i>
10.30	<b>Alice Matone</b> , The Microsoft Research, University of Trento Centre for Computational Systems Biology (COSBI), Rovereto, Italy <i>Aerobic fitness of healthy adults in relation to metabolomic and transcriptomic response to acute metabolic challenges</i>
10.45	Coffee break*
11.15	<b>Inga C. Teller</b> , Early Life Nutrition, Developmental Physiology, Nutricia Research, Utrecht, The Netherlands <i>Nutritional programming of adult metabolic health by dietary lipid quality and structure</i>
12.00	<b>Raffaele De Caterina</b> , G. d'Annunzio University, Chieti, Italy <i>Nutrigenetics and Cardiovascular Diseases</i>
12.45	<b>Discussion</b>
13.00	Lunch *
15.00	<b>Session 7:</b> <b>Nutrition and aging</b> Chair: <b>Claudia Nunes dos Santos, Raffaele De Caterina</b>
15.00	<b>Vadim Fraifield</b> , Ben-Gurion University of the Negev, Beer Sheva, Israel <i>From the longevity genes to the longevity network: does it make sense?</i>
15.45	<b>Marco Malavolta</b> , INRCA, Ancona, Italy <i>Cellular Senescence Modulators: an eye on food derived compounds</i>
16.30	Coffee break*
17.00	<b>Alfredo Martinez</b> , Universidad de Navarra, Pamplona, Spain <i>Epigenetic effects of nutrients</i>
17.45	<b>Discussion</b>
18.00	<b>Poster Session</b>
19.00	Dinner*
21.30	Social event

Friday, 5<sup>th</sup> September

8.30	<b>Session 8:</b> <b>Food and health</b> Chair: <b>Valerio Napolioni, Vadim Fraifield</b>
8.30	<b>Regina Menezes</b> , IBET and ITQB, Oeiras, Portugal <i>Yeast SMART platform for screening of bioactives in human pathologies</i>
9.15	<b>Torsten Bohn</b> , Unit Leader Nutrition & Toxicology Environment & Agrobiotechnologies Department (EVA), Belvaux, Luxembourg <i>We are what we eat - is that true? The interrelation between diet, disease and well-being</i>
10.00	<b>Ingemar Pongratz</b> , Pongratz Consulting, Stockholm, Sweden <i>The Aryl Hydrocarbon Receptor as a new target for Nutrients and Food derived compounds</i>
10.45	Coffee break *
11.15	<b>Claudia Muñoz-Yáñez</b> , Universidad Juárez del Estado de Durango, Mexico <i>Analysis of the contribution of PPAR-gamma, FTO and ADIPOQ genes to lipid profile in Mexican children</i>
11.30	<b>Sébastien Lacroix</b> , System nutrition, The Microsoft Research - University of Trento Centre for Computational and Systems Biology (COSBI), Rovereto, Italy <i>Identification of nutrient metabolism-related genes with high allele frequency differentiation between 1000 Genomes populations</i>
11.45	<b>Discussion</b>
12.00	<b>Round table: Insights into nutrigenomics future and career info for nutrigenomics specialist</b> <b>Inga C. Teller</b> , Developmental Physiology/Early Development/ Nutricia Research, Utrecht, The Netherlands <b>Torsten Plösch</b> , Dept Obstetrics and Gynaecology, University Medical Center Groningen, The Netherlands <b>Stefano Lorenzetti</b> , Istituto Superiore di Sanità, ISS, Roma, Italy
12.30	<b>Foresight Session:</b> <b>Communication strategies to the general public</b> <b>Sofia Kuhn</b> , Science Communications Professional Muninn: Managing and promoting science
13.00	Closing remarks
13.15	Lunch*

\* How to Apply Nutrigenomics knowhow: Coffee break and lunch will be prepared according to the indications of a team of nutritionists that will select specific foods, based on a healthy diet and knowledge on the effects of micro/macro-nutrients and active food compounds on genes. Each food will have its specific indication: i.e. at coffee break different types of tea will be offered and the activities of the bioactive compounds will be underlined. This approach will permit to show us how nutrigenomics knowhow can be applied to daily diet.

**Local Nutritionist Team**  
**Letizia Saturni**, Nutrition coach  
**Maria Cristina di Prinzio**, Nutritionist  
**Elisa Mancini**

The nutrition coach with an expert team will provide you with **mindful eating**. They will be able to offer you a pleasurable activity and a more intense experience with healthy food. We know well the strict relationship between Diet-Health or Nutrient&Gene but often it is very difficult to apply knowhow daily. The timeout, lunch and dinner during the meeting, will be transformed into opportunities.

Scientific Committee

**Michael Müller** Norwich Medical School, University of East Anglia, Norwich Research Park, England  
**Rosita Gabbianelli**, University of Camerino, Italy  
**Vadim Fraifield**, Ben-Gurion University of the Negev, Israel  
**Raffaele De Caterina**, G. d'Annunzio University, Chieti, Italy  
**Marianne Rots**, Epigenetic Editing, Dept Pathology and Medical Biology - University Medical Center Groningen, Groningen, the Netherlands  
**Claudia Nunes Dos Santos**, IBET and ITQB, Oeiras, Portugal

Local Organizing Committee

**Rosita Gabbianelli**  
**Cinzia Nasuti**  
**Donatella Fedeli**  
School of Pharmacy, University of Camerino, Camerino, Italy  
**Valerio Napolioni**  
Innovation Pole for Genomics, Genetics and Biology, Perugia, Italy

International Organizing Committee

**Claudia Nunes Dos Santos**, IBET and ITQB, Oeiras, Portugal  
**Torsten Plösch**, Dept. Obstetrics and Gynaecology University Medical Center Groningen, Groningen, Netherlands  
**Ingemar Pongratz**, Pongratz Consulting, Stockholm, Sweden  
**Ramona Suharoschi**, MD, PhD, University of Agricultural Sciences and Veterinary Medicine of Cluj-Napoca, Romania Faculty of Food Science & Technology Institute of Life Sciences Molecular Nutrition Lab - (Genomics&Proteomics), Cluj, Romania

All participants will acquire 6 CFU/ECTS

Medical Doctors, Pharmacists, Biologists and Nutritionists have the possibility to acquire 50 ECM/CME after payment of additional 50 euros

Further information to  
nutrigenomics@unicam.it

Registration fees

	Early Registration Paid Jan 5-Mar 31, 2014	Regular Registration Paid Apr 1- May 31, 2014	Last Registration June 1-10, 2014
Students* (with accommodation)	€ 450*	€ 500*	€ 600*
Young Scientists** (with accommodation)	€ 500*	€ 550*	€ 650*
Students (without accommodation)	€ 375	€ 425	€ 525
Academic & Researcher	€ 400	€ 450	€ 550
Industry Representative	€ 650	€ 700	€ 800
Accompanying Persons	€ 250	€ 300	€ 350

\* Master degree and PhD students  
\*\* Congress participants under 35 years can register as Young Scientists

100 participants represent the limit number to realize the Summer School on Nutrigenomics

Registration fee for Students\* and Young Scientists\*\* include:

- Attendance to all scientific sessions
- Welcome party, lunch, dinner and coffee breaks
- Accommodation included at University Campus (5 nights)
- Congress bag with published congress materials
- Cultural events

Registration fee for participants and industry representatives include:

- Attendance to all scientific sessions
- Welcome party, lunch, dinner and coffee breaks
- Congress bag with published congress materials
- Cultural events

Registration fee for Accompanying Persons includes:

- Welcome party, lunch, dinner and coffee breaks
- Cultural events

Accommodation fee for Academic and Researcher/Industry Representative/Accompanying Persons

- University Campus
- Single without breakfast
- € 35,00

Call for Abstracts

Students and young researchers are invited to submit unpublished research results. Abstract Submission for the Summer School of Nutrigenomics will be open Jan 5-Mar 31, 2014.

Abstract Submission Policies

Abstracts must be work that has not been accepted for publication at the time of submission. All abstract submissions will be peer reviewed and may be submitted as an oral presentation or a poster presentation. An individual may be the First (submitting) Author of only one abstract. The Presenting Author must be the First (submitting) Author and the individual whose name appears first on the abstract. An abstract must be submitted with the intention that, if accepted, it will be presented by the First Author. There is no limit to the number of times an individual may appear as a co-author on abstracts. All abstract submissions must be in English. All presentations based on accepted abstract submissions must be made in English. ONLY those abstracts submitted via the official abstract submission site will be considered.

Key dates for the 2014 Abstract Program

Jan 5, 2014 Abstract submission site opens  
Mar 31, 2014 Abstract submission deadline  
May 31, 2014 Abstract acceptance notifications sent to First Author