

# Summer School on Nutrigenomics

1<sup>st</sup> - 5<sup>th</sup> September 2014  
Camerino, Italy



HR EXCELLENCE IN RESEARCH

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

Preliminary programme

**Monday, 1st September**

- 15.00 **Welcome**  
Chair: **Marianne Rots, Alfredo Martinez**
- 15.30 **Introduction to Nutrigenomics**  
**Michael Müller** Division of Human Nutrition, Wageningen University, The Netherlands.  
*The use of molecular nutrition and nutrigenomics research to understand metabolic plasticity and health*
- 16.30 **Session 1: Gene Transcription and responses to diet**  
Chair: **Ina Bergheim, Torsten Plösch**
- 16.30 **Sascha Sauer**, Nutrigenomics and Gene Regulation, Max-Planck-Institute for Molecular Genetic, Berlin, Germany.  
*Analysing transcriptional landscapes of dietary molecules*
- 17.15 Coffee break\*
- 17.30 **Valerio Napolioni**, Innovation Pole for Genomics, Genetics and Biology, Perugia, Italy.  
*Gene-diet-disease interactions and personalized medicine*
- 18.15 **Francesco Galli**, University of Perugia, Laboratory of Nutritional and Clinical Biochemistry, University of Perugia, Italy  
*What genes and metabolites can tell us about healthy lifestyles? The MEDINET project*
- 19.00 **Discussion**
- 19.30 Welcome party\*
- 21.30 Social event

**Tuesday, 2nd September**

- 8.45 **Session 2: Epigenetic reprogramming by nutrition**  
Chair: **Michael Müller, Josep Jimenez Chillaron**.
- 8.45 **Marianne Rots**, Epigenetic Editing Group, Dept Pathology and Medical Biology, University Medical Center Groningen, Groningen, the Netherlands  
*To mimic and reverse epi-mutations by Epigenetic Editing*
- 9.30 **Clarissa Gerhauser**, Epigenomics and Cancer Risk Factors, German Cancer Research Centre, Heidelberg UMCG, Germany  
*Nutri-Epigenomics and Cancer Prevention*
- 10.15 **Alfredo Martinez**, Universidad de Navarra, Pamplona, Spain  
*Epigenetic effects of nutrients*
- 11.00 Coffee break\*
- 11.15 Presentations from the participants
- 11.30 Presentations from the participants
- 11.45 **Session 3: Interaction of Bioactive Food Components with Genes**  
Chair: **Ingemar Pongratz, Marianne Rots**
- 11.45 **Ina Bergheim**, Department of Nutritional Sciences, Model Systems of Molecular Nutrition, Friedrich-Schiller-University Jena, Germany  
*Non-alcoholic fatty liver disease (NAFLD): Interaction of nutrition, gut and liver*
- 12.30 **Giovanni Scapagnini**, University of Molise, Campobasso, Italy  
*Modulation of Nrf2/ARE pathway by food polyphenols: a nutritional neuroprotective strategy for cognitive and neurodegenerative disorders*
- 13.15 Discussion
- 13.30 Lunch\*
- 15.00 **Claudia Nunes Dos Santos**, IBET and ITQB, Oeiras, Portugal  
*Potential of berries polyphenols for preventing age-related neurodegeneration: omics insights*
- 15.45 **Gary Williamson**, Functional Foods Research section: Food Chemistry and Biochemistry at School of Food Science and Nutrition of University of Leeds, UK  
*Interaction of polyphenols with transporters: consequences for cellular metabolism*
- 16.30 Coffee break\*
- 16.45 Presentation from the participants
- 17.00 Presentation from the participants
- 17.15 **Discussion**
- 17.45 **Poster session**
- 19.00 Dinner\*
- 21.30 Social event

**Wednesday, 3rd September**

- 8.45 **Session 4: Epigenesis: state-of-the-art in epigenetics, by Epigenesis members**  
Chair: **Barbara T Alexander, Sascha Sauer**
- 8.45 **Josep Jimenez Chillaron**, Endocrine Division, Hospital Sant Joan de Déu, Barcelona, Spain  
*Early nutrition and long-term programming of diabetes: Potential role of epigenetics*
- 9.30 **Torsten Plösch**, Dept Obstetrics and Gynaecology, University Medical Center Groningen, the Netherlands  
*Epigenetic consequences of maternal under- and overnutrition*
- 10.15 Presentations from the participants
- 10.30 Presentations from the participants
- 10.45 Coffee break\*
- 11.00 **Keynote lecture: Barbara T Alexander**, Medical Centre University of Mississippi, Jackson, U.S.A.  
*The impact of nutritional insults during fetal life on blood pressure*
- 12.00 **Cinzia Nasuti**, University of Camerino, Italy  
*Early life pesticide exposure and long-term health effects*
- 12.45 **Discussion**
- 13.00 Lunch\*
- 15.00 **Session 5: Nutrigenomics and cancer**  
Chair: **Helen M Roche, Raffaele De Caterina**
- 15.00 **Ramona Suharoschi**, 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  
*Advanced Analytical Techniques for Nutrigenomics in Nutritional Intervention. Perspectives in Personalized food / Personalized nutrition*
- 15.45 **Wim Van den Berghe**, Department Biomedical Sciences - University Antwerp PPES lab Protein Science, Proteomics & Epigenetic Signaling Campus Drie Eiken, Wilrijk (Antwerp) Belgium  
*Epigenetic impact of dietary phytochemicals in cancer & cardiovascular disease: lifelong remodeling of our epigenomes*
- 16.30 Coffee break \*
- 16.45 Presentations from the participants
- 17.00 Presentations from the participants
- 17.15 **Discussion**
- 17.45 **Poster Session**
- 19.00 Dinner\*
- 21.30 Cultural event

**Thursday, 4th September**

- 8.45 **Session 6: Gene-nutrient interactions, metabolic syndrome and cardiovascular diseases**  
Chair: **Wim Van den Berghe, Ramona Suharoschi**
- 8.45 **Helen M Roche**, UCD Conway Institute / UCD Institute of Food & Health, University College Dublin, Belfield, Ireland  
*Interactions between metabolic and inflammatory stressors in relation to health-insights from the nutrigenomics perspective*
- 9.30 M.M.  
*Iron and the homeostatic regulation of its transport systems and storage (Proof title)*
- 10.15 Coffee break \*
- 10.30 **Inga Teller**, Early Life Nutrition, Developmental Physiology, Nutricia Research, Utrecht, The Netherlands  
*Nutritional programming of adult metabolic health by dietary lipid quality and structure*
- 11.15 **Roberto Marchioli**, Consorzio Mario Negri Sud, Santa Maria Imbaro, Chieti, Italy  
*Interpretation of clinical trials with omega-3 fatty acids*
- 12.00 **Raffaele De Caterina**, G. d'Annunzio University, Chieti, Italy  
*Nutrigenetics and Cardiovascular Diseases*
- 12.45 **Discussion**
- 13.00 Lunch \*
- 15.00 **Session 7: Nutrition and aging**  
Chair: **Claudia Nunes dos Santos, Raffaele De Caterina**
- 15.00 **Vadim Fraifeld**, Ben-Gurion University of the Negev, Beer Sheva, Israel  
*From the longevity genes to the longevity network: does it make sense?*
- 15.45 **Marco Malavolta**, INRCA, Ancona, Italy  
*Cellular Senescence Modulators: an eye on food derived compounds*
- 16.30 Coffee break\*
- 16.45 Presentations from the participants
- 17.00 Presentations from the participants
- 17.15 **Discussion**
- 17.45 **Poster Session**
- 19.00 Dinner\*
- 21.30 Cultural event

**Friday, 5th September**

- 8.30 **Session 8: Food and health**  
Chair: **Valerio Napolioni, Vadim Fraifeld**
- 8.30 **Regina Menezes**, Disease and Stress Biology Laboratory Instituto de Tecnologia Química e Biológica, Oeiras, Portugal  
*Yeast SMART platform for screening of bioactives in human pathologies*
- 9.15 **Torsten Bohn**, Unit Leader Nutrition & Toxicology Environment & Agrobiotechnologies Department (EVA), Belvaux, Luxembourg  
*We are what we eat - is that true? The interrelation between diet, disease and well-being*
- 10.00 **Ingemar Pongratz**, Pongratz Consulting, Stockholm, Sweden  
*The Aryl Hydrocarbon Receptor as a new target for Nutrients and Food derived compounds*
- 10.45 Coffee break \*
- 11.00 **Round table: Insights into nutrigenomics future and career info for nutrigenomics specialist**  
**Inga Teller**, Developmental Physiology/Early Development/ Nutricia Research, Utrecht, the Netherlands  
**Torsten Plösch**, Dept Obstetrics and Gynaecology, University Medical Center Groningen, the Netherlands  
**Stefano Lorenzetti**, Istituto Superiore di Sanità, ISS, Roma, Italy
- 11.30 **Discussion**
- 12.00 Presentations from the participants
- 12.15 Presentations from the participants
- 12.30 **Foresight Session: Communication strategies to the general public**  
**Sofia Kuhn**, Science Communications Professional Muninn: Managing and promoting science
- 13.00 End Summer School on Nutrigenomics
- 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  
**Elsa Mancini**  
**Sara Tassi**  
**Maria Cristina di Prinzio**, Nutritionist  
**Letizia Miccoli**

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** Division of Human Nutrition, Wageningen University, Wageningen, The Netherlands  
**Rosita Gabbianelli**, University of Camerino, Italy  
**Vadim Fraifeld**, Ben-Gurion University of the Negev, Israel  
**Raffaele De Caterina**, G. d'Annunzio University, Chieti, Italy  
**Marianne Rots**, Epigenetic Editing Group, Dept Pathology and Medical Biology - University Medical Center Groningen, Groningen, the Netherlands  
**Claudia Nunes Dos Santos**, IBET and ITQB, Oeiras, Portugal  
**Helen M Roche**, UCD Conway Institute / UCD Institute of Food & Health, University College Dublin, Belfield, Ireland

**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

**Registration fees**

	Early Registration Paid Jan 5-Mar 31, 2014	Regular Registration Paid Apr 1-May 31, 2014	On-site Registration Paid after June 1, 2014
Students* (with accommodation)	€ 450*	€ 500*	€ 600*
Young Scientists** (with accommodation)	€ 500*	€ 550*	€ 650*
Students (without accommodation)	€ 375	€ 425	€ 525
Academic & Researcher	€ 400	€ 450	€ 500
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

Further information to nutrigenomics@unicam.it