



# Precision nutrition and nutriomics

10. Mar - 12. Mar, 2025

**Monday, March 10, 2024 (IMDEA Nutrition)**



**IMDEA + online IMDEA**

- 15:00-15:25 **Current methods and applications of HPLC mass metabolomics in precision nutrition.**  
*Alberto Valdés.* Institute of Food Science Research – Spanish National Research Council (CIAL-CSIC).
- 15:25-15:50 **Current methods and applications of NMR metabolomics in precision nutrition.**  
*Nuria Amigó.* Biosfer Testlab.
- 15:50-16:00 QUESTIONS
- 16:00-16:25 **Current methods and applications of exome analyses in precision nutrition.**  
*Ricardo Ramos.* IMDEA Nutrition.
- 16:25-16:50 **Current methods and applications of nutrigenetics in precision nutrition.**  
*Marta Alonso.* ADNTR0 Genetics.
- 16:50-17:00 QUESTIONS
- 17:00-17:25 **Epigenetic signatures methodologies.**  
*Felipe Javier Chaves Martínez.* SeqPlexing S.L
- 17:25-17:50 **Current methods and applications of cell cultures in precision nutrition.**  
*Alberto Díaz-Ruíz* and IZASA. IMDEA Nutrition/IZASA.
- 17:50-18:00 QUESTIONS
- 18:00-18:30 **BREAK**
- 18:30-18:55 **Current methods and applications of artificial intelligence in precision nutrition.**  
*Mario Astigarraga.* IMDEA Nutrition.
- 18:55-19:20 **Current methods and applications of the metagenomics in precision nutrition (I).**  
*Laura J. Marcos.* IMDEA Nutrition.
- 19:20-19:30 QUESTIONS
- 19:30-19:55 **Multomics screening.**  
*Metehan Cifdaloz.* Novogene Europe.
- 19:55-20:20 **Research in pediatric obesity.**  
*Begoña de Cuevillas.* IMDEA Nutrition.
- 20:20-20:30 QUESTIONS



## Tuesday, March 11, 2024 (morning)

### IMDEA + online IMDEA

- 09:00-09:20 **Inmunomics in nutrition.**  
*Moisés Laparra.* IMDEA Nutrition/Universidad Internavional de Valencia (VIU).
- 09:20-09:40 **Current methods and applications of Seahorse technology in precision nutrition.**  
*María Ikonomopoulou.* IMDEA Nutrition.
- 09:40-10:00 **Breath as a Source of Non-Invasive Biomarkers for Precision Medicine.**  
*Ben Constant.* Owlstone Medical Ltd.
- 10:00-10:30 **BREAK**



### Online UIK

#### ORAL COMMUNICATIONS

- 10:30-10:40 **Post transcriptional control of metabolism.**  
*Cristina Puigdueta.* IMDEA Nutrition.
- 10:40-10:50 **Polyphenol metabotypes.**  
*Cristiana Mignogna.* University of Parma.
- 10:50-11:00 **Folic acid recommendations with genetics.**  
*Victor de la O.* IMDEA Nutrition.
- 11:00-11:10 **Cancer and nutrigenetics.**  
*Camilla Horn Soares/Thais Steemburgo.* Federal University of Rio Grande do Sul, Brazil.
- 11:10-11:20 **Nutritional scores and metabolic diseases.**  
*Anael Mellado Negrete.* Tec de Monterrey, Mexico.
- 11:20-11:30 **Food intake and gestational weight gain considering FTO polymorphisms in Brazilian pregnant women.**  
*Katherine Bittencourt.* Federal University of the State of Rio de Janeiro, Brazil.
- 11:30-11:40 **Phthalate exposure is associated with subclinical coronary atherosclerosis: The Aragon Workers' Health Study (AWHS).**  
*Diana Mérida Paredes.* Universidad Autónoma de Madrid, Spain.
- 11:40-11:50 **Dietary patterns in Brazil – CUME Study.**  
*Jessica Bevenuto Mattar.* Brazil.
- 11:50-12:00 **Adecuación de macronutrientes de la dieta del Expedicionario del Antártida en relación con la ingesta recomendada por la OMS.**  
*Milagros Elena Arguedas Lagos.* Universidad Femenina del Sagrado Corazón (UNIFE), Perú.
- 12:00-12:10 **Capacidad antioxidante y contenido de polifenoles de la chalarina (Casimiroa edulis).**  
*Gabriela Mercedes Vera Sánchez.* Universidad Femenina del Sagrado Corazón (UNIFE), Perú.
- 12:10-12:20 **Genetic and sex differences in NAFDL.**  
*Melissa de Jesús Vega Burgeño.* Universidad Autónoma de Sinaloa, México.

- 12:20-12:30 **Is the Dieta de la Milpa an alternative dietary pattern for end-stage renal disease patients on hemodialysis?**  
*Carolina Gabriela Plazas Guerrero. Universidad Autónoma de Sinaloa, México.*
- 12:30-12:40 **Dyslipidemia and Lifestyle: A Nutrigenetic Approach.**  
*Itzel Zamudio Felix. Universidad de Guadalajara, México.*
- 12:40-12:50 **Telomere length in patients with systemic lupus erythematosus in different nutritional statuses.**  
*Beatriz García de Carballo. USP Brazil.*
- 12:50-13:00 **Hipovitaminosis D in autoinmune diseases.**  
*Bertha Campos López. Universidad de Guadalajara, México.*
- 13:00-13:10 **Can dietary antioxidants and TNF- $\alpha$  genetic variants help control insulin in obesity?**  
*Erika Sierra. Universidad de Guadalajara, México.*
- 13:10-13:20 **Achieving Normoglycemia through Nutriomics.**  
*Anusha Sunder. Xcode, Life Sciences Pvt. Ltd, India.*
- 13:20-13:30 **Effects of Opuntia cacti extracts in obesity prevention. A comparison between epididymal and subcutaneous adipose tissues.**  
*Iker Gómez García. University of the Basque Country (UPV/EHU), Vitoria-Gasteiz, Spain.*
- 13:30-13:40 **Frequency of nutrigenetic variants predisposing to Cardiovascular diseases in the Bulgarian population.**  
*Olga Antonova. Medical University-Sofia, Bulgaria.*
- 13:40-13:50 **Artificial sweeteners and cardiovascular disease: Systematic review and meta-analysis.**  
*Sofía Gimeno-Ruiz. Universidad Autónoma de Madrid, Spain.*
- 13:50-14:00 **High Serum Phosphate Is Associated with Cardiovascular Mortality and Subclinical Coronary Atherosclerosis: Systematic Review and Meta-Analysis.**  
*Carolina Torrijo-Belanche. Universidad Autónoma de Madrid, Spain.*
- 14:00-15:00 **BREAK**
-  **Online UIK**
- 15:00-15:25 **Epigenetic clocks and dietary lifestyle.**  
*Rosita Gabbianelli. Università degli Studi di Camerino, Italy (ISNN).*
- 15:25-15:50 **Precision nutrition in obesity: the role of metabotypes.**  
*Ellen Blaak. Maastricht University, Netherlands (ISNN).*
- 15:50-16:00 **QUESTIONS**
- 16:00-16:25 **Chrononutrition for precision feeding.**  
*Bárbara Vizmanos. University of Guadalajara, Mexico (RINN22).*
- 16:25-16:50 **Precision nutrition for women's health.**  
*Karina dos Santos. Federal University of the State of Rio de Janeiro, Brazil (RINN22).*
- 16:50-17:00 **QUESTIONS**
- 17:00-17:25 **Implications of epigenetics for human obesity.**  
*Oscar Omar Ramos. Autonomous University of Baja California, Mexico (RINN22).*

- 17:25-17:50 **Maternal nutrition programming of the offspring.**  
*Ana Laura de la Garza. Autonomous University of Nuevo León, Mexico (RINN22).*
- 17:50-18:00 QUESTIONS
- 18:00-18:30 **BREAK**
- 18:30-18:55 **Handling the complexity of (poly)phenol metabolism to improve cardiometabolic health.**  
*Pedro Mena. University of Parma, Italy.*
- 18:55-19:20 **Personalized nutrition in severe hypertriglyceridemia.**  
*José L. Santos. Pontifical Catholic University of Chile, Chile (RINN22).*
- 19:20-19:30 QUESTIONS
- 19:30-19:55 **Current methods and applications of the metagenomics in precision nutrition (II).**  
*Amanda Cuevas. IMDEA Nutrition.*
- 19:55-20:20 **Plant microRNAs as regulators of gene expression.**  
*Silvia Lorente Cebrián. University of Zaragoza, Spain (RINN22 + CTPIOD).*
- 20:20-20:30 QUESTIONS



## Wednesday, March 12, 2024 (morning)

Carlos Santamaría Building (Auditorio) + Online UIK

- 09:00-09:30 **The history of a resveratrol dimer, namely  $\epsilon$ -viniferin: From the plant to its biological activities useful for human health.**  
*Arnaud Courtois. University of Bordeaux, France (CTPIOD).*
- 09:30-10:40 **Session 1. Natural extracts and bioactive compounds.**  
Chair: *Arnaud Courtois*
- Apple residues for the extraction of polyphenols with applications for metabolic disorders.** *Javier Cano-Lou, Víctor López. Universidad San Jorge, Spain.*
- Effects of Opuntia extracts on inflammation murine model diet-induced obesity and liver steatosis.** *Iker Gómez García, María Puy Portillo. University of the Basque Country, Spain.*
- Effect of Opuntia ficus-indica var. colorada pulp and Opuntia stricta var. dillenii peel extracts in the hepatic lipid metabolism of diet-induced MAFLD in rats.** *Irene Besné Eseverri, María Puy Portillo. University of the Basque Country, Spain.*
- African traditional medicinal plants used in the Republic of Benin for the treatment of diabetes: in vitro validation and potential mechanisms.** *Gemma Casado, Víctor López. Universidad San Jorge, Spain.*
- 10:40-11:15 **Session 2. Bioactive peptides and proteins.**  
Chair: *Victor López*
- Functional evaluation of pea and fava bean protein hydrolysates in Caenorhabditis elegans model.** *Maialen Uriz-Martínez, Diana Ansorena, Iciar Astiasaran, Paula Aranaz. University of Navarra, Spain.*

**Alternative protein sources on intestinal health.** *Oria Soler Boronat, Montse Pinent.* Rovira I Virgili University, Spain.

11:15-11:40 **COFFEE BREAK**

11:40-12:15 **Session 3. Dietary strategies.**

Chair: *Anne Bouloumié*

**Modulation of body fat mass by a light ketogenic diet supplemented with L-carnitine.** *Inmaculada Sansano-Hidalgo, Diego Fernández-Lázaro, Enrique Roche.* Miguel Hernández University, Spain.

**Mediterranean Diet Benefits in MAFLD.** *Seyed Hesamoddin, Jesús De la Osada.* University of Zaragoza, Spain.

12:15-13:25 **Session 4. Obesity: models and mechanisms.**

Chair: *María Puy Portillo*

**Adaptation to nutritional state according to sex and hormonal status in mice.** *Juline Marjollet, Anne Bouloumié.* INSERM, Toulouse, France.

**GDF15 Dynamics Following Metabolic Surgery: Implications for Weight Loss and Liver Function.** *Victor Yassuda, Ana Luísa Coelho, Andrés Méndez-Lucas.* University of Algarve, Portugal / University of Barcelona, IDIBELL, Spain.

**3D Model of human adipose lobule revealing the supporting role of progenitors on adipocyte functionality in addition to adipogenesis.** *Leopold Devineaux, Anne Bouloumié.* INSERM, Toulouse, France.

**Integrating Metagenomics and Metabolomics to Uncover Microbial-Metabolic Interactions in Human Metabolic Health: Insights from the Obekit Intervention Study.** *Jaime Alonso-Allende, Fermin Milagro, Paula Aranaz.* University of Navarra, Spain.

13:25-13:55 **Polyphenols intake implications on health: role of biological rhythms.**

*Anna Arola.* University Rovira y Virgili, Spain (CTPIOD).

14:00-14:15 **Concluding remarks and CTPIOD awards.**

14:15-15:00 **BREAK**



**Carlos Santamaría Building (Aula 5, until 20:00) + Online UIK**

15:00-15:25 **Fatty Acid Desaturases and Omega-3 Synthesis: Insights into the Functional Impacts of Genetic Variants.**

*David M. Mutch.* University of Guelph, Canada (ISNN).

15:25-15:50 **Precision lifestyle medicine in obesity: role of mediation analysis in understanding genetic susceptibility to obesity.**

*Louis Pérusse.* Laval University, Canada (ISNN).

15:50-16:00 **QUESTIONS**

16:00-16:25 **Lipidomic changes induced by arthritis and the effects of omega-3.**

*Frederic Capel.* University of Clermont-Auvergne, France (CTPIOD).

- 16:25-16:50 **Nutrigenetics of cardiovascular disease/miRNomics in cardiovascular disease.**  
*Maria Elizabeth Tejero.* National Institute of Genomic Medicine, Mexico (ISNN + CTPIOD).
- 16:50-17:00 QUESTIONS
- 17:00-17:25 **Omics exploration of postprandial metabolism and cardiometabolic risk.**  
*Sergio Polakof.* University of Clermont-Auvergne, France (NUGO).
- 17:25-17:50 **Novel study designs and modeling approaches in human precision nutrition research.**  
*Baukje De Roos.* University of Aberdeen, Scotland (NUGO).
- 17:50-18:00 QUESTIONS
- 18:00-18:30 **BREAK**
- 18:30-18:55 **Transcriptomics applications in precision nutrition.**  
*Alberto Dávalos.* IMDEA Nutrition, Spain (RINN22 + CIBEROBN).
- 18:55-19:20 **Epigenetic applications in precision nutrition.**  
*Lidia Daimiel.* IMDEA Nutrition, Spain (CIBEROBN).
- 19:20-19:30 QUESTIONS
- 19:30-19:55 **Epigenetic Benefits and Mechanisms of Regular Physical Activity in Metabolic Disease Management.**  
*Elisa María Barrón.* Universidad Autónoma de Sinaloa.
- 19:55-20:20 **The interaction between genetic polymorphisms in FTO, MC4R, CLOCK, GHSR, GHRL, LEP, LEPR, RETN, and ADIPOQ genes with meal frequency on anthropometric, metabolic and hormonal indicators: a randomized nutrigenetic trial with obese women.**  
*Eliane Lopes Rosado.* Federal University of Rio de Janeiro
- 20:20-20:30 QUESTIONS

