



**NUTRAGE**  
Consiglio Nazionale delle Ricerche

# Nutrition and Active ageing: scientific advances from CNR research

**5-6 november 2025**

Aula Magna - Centro di servizio di Ateneo per  
le Scienze e Tecnologie per la Vita (CESTEV)

## Day 1 | **5 November 2025**

09.30-10.00 Welcome addresses and Opening remarks

### **SESSION 1 | RETHINKING THE MEDITERRANEAN DIET**

Chairs: Angelo Santino, Antonio Francesco Logrieco and Federica Prinelli

10.00-10.30 ***Med Diet: Beyond the new guidelines***

keynote speaker: **Roberto Volpe**, CNR & Fondazione Dieta Mediterranea - Italy

10.30-10.45 Impacts of an antioxidant-rich diet and lifestyle factors on gut microbiota diversity and brain health: an exploratory analysis from the NutBrain Study - **Federica Prinelli**

10.45-11.00 Human gut microbiota modulation by polyphenols from traditional mediterranean foods: a SHIME®-based in vitro study - **Isabella D'Antuono**

11.00-11.15 Innovations in fermentation of black cabbage to enhance its nutritional and functional profile - **Gianluca Blevé**

11.15-11.30 Bioprospecting of six polyphenol-rich mediterranean wild edible plants reveals antioxidant, antibiofilm and bactericidal properties against methicillin resistant staphylococcus aureus - **Francesca Mariani**



11.30-12.00 Coffee break

## **SESSION 2 | NEW TECHNOLOGIES FOR FOOD NUTRITIONAL AND QUALITY IMPROVEMENT**

Chairs: Gianna Palmieri and Laura Pucci

- 12.00-12.30 *Healthy plants – healthy people; enhancing phytonutrients in tomato*  
keynote speaker: **Cathy Martin/Eugenio Butelli**, John Innes Centre (Norwich, UK)
- 12.30-12.45 Molecular simulations for studies on the biological activity of components from food matrices and their role - **Angelo Facchiano**
- 12.45-13.00 Biofortification of lemna minor L. with iodine: cultivation strategies and nutritional implications - **Massimiliano D'Imperio**
- 13.00-13.15 Redesign traditional particle production processes by membrane technology to achieve high efficiency and sustainability - **Emma Piacentini**
- 13.15-13.30 Sourdough fermentation enhances nutritional and biofunctional compounds in spelt wheat (*Triticum dicoccum*) flour: assessment through in vitro gastrointestinal digestion - **Morena Gabriele**
- 13.30-15.00 Lunch break & Poster session

## **SESSION 3 | MODELS AND MARKERS FOR BETTER PREVENTION STRATEGIES**

Chairs: Silvia Bione and Fabio Lauria

- 15.00-15.30 *Obesity and physical inactivity: today's equivalent of smoking. How to enhance healthy lifestyle*  
keynote speaker: **Guido Iaccarino**, Università degli Studi di Napoli "Federico II", (Naples, Italy)
- 15.30-15.45 Longitudinal association between insulin clearance and age and targeted metabolites in individuals at risk of type 2 diabetes - **Carlo Alberto Rossi**



- 15.45-16.00 Low concentrations of dietary phytochemicals protect human myeloid and intestinal cells from oxidative stress, supporting cancer chemoprevention - **Maria Russo**
- 16.00-16.15 Sex- and age-dependent metabolic pathways as therapeutic targets in neuropathic pain: from biomarkers to nutraceutical interventions - **Sara Marinelli**
- 16.15-16.30 Quantitative lipidomics identified serum markers of inflammation associated with obesity in aging mice - **Giorgia Zadra**
- 16.30-17.00 Coffee break
- 17.00-17.10 NUTRAGE at a glance **Federica Tenaglia**
- 17.10-18.30 **ROUND TABLE: WHICH FUTURE FOR THE NUTRAGE PROJECT?**
- 18.30-19.30 Live Musical Performance: "Fine Wine Tunes" - Conservatorio di San Pietro a Majella

Day 2 | **6 November 2025**

**SESSION 4 | VALIDATION OF FUNCTIONAL  
FOODS/PHYTOCHEMICALS-ENRICHED MATRICES**

Chairs: Sara Marinelli and Rosalba Giacco

- 09.30-10.00 *Extravirgin olive oil polyphenols for healthy aging: from bench to bedside*  
keynote speaker: **Luciana Mosca**, Sapienza Università di Roma (Rome, Italy)
- 10.00-10.15 Prolonged high-fat diet induces neuroinflammation, oxidative stress, and glucose metabolism dysregulation in mice - **Sara Belloli**
- 10.15-10.30 Protective effects of hydroxytyrosol, a component of olive oil, and extracts from olive oil by-products on cognitive decline, loss of muscle function and alterations in the gut microbiota in aged mice - **Laura Micheli**



- 10.30-10.45 Natural oleacein modulates shared pathways in Alzheimer's disease and neuroblastoma - **Mariamena Arbitrio**
- 10.45-11.00 Protective effects of optimised fermented wheat flour against inflammation in intestinal cells through the release of fibre-bound bioactive compounds - **Elena Tomassi**
- 11.00-11.30 Coffee break

### **SESSION 5 | RECOVERY OF BIOACTIVE COMPOUNDS FROM SIDE-PRODUCTS OF AGRIFOOD CHAINS**

Chairs: Angela Cardinali and Roberto Consonni

- 11.30-12.00 ***Phytochemicals in chronic inflammatory syndromes***  
keynote speaker: **Marcello Chieppa**, Università del Salento (Lecce, Italy)
- 12.00-12.15 Agri-food waste biotransformations into bioactive peptides by extremophilic enzymes: production of innovative and eco-sustainable phytostimulants - **Gianna Palmieri & Emanuela Galatola**
- 12.15-12.30 A simple and eco-friendly route to valorize fennel wastes through the recovery of functional compounds and their separation with sustainable membrane technologies - **Carmela Conidi**
- 12.30-12.45 Sustainable extraction and microencapsulation of phenolic compounds from *Castanea sativa* byproducts: implications for functional foods and chemoprevention - **Stefania Moccia**
- 12.45-13.00 Anti-Inflammatory potential of citrus peel extracts: comparative analysis of methanol and ethanol extracts - **Maria Tufariello & Alessandro Miraglia**
- 13.00-14.00 Lunch break & Poster session



## **SESSION 6 | KNOWLEDGE AND DIGITAL SOLUTIONS FOR A BETTER NUTRITION**

Chairs: Marianna Noale and Angelo Facchiano

- 14.00-14.15 Non-invasive systems for home monitoring of elderly patients' quality lifestyle - **Mario Magliulo**
- 14.15-14.30 Recognition of apps on the market linked to lifestyles from a nutritional and general well-being perspective - **Fabrizio Pecoraro**
- 14.30-14.45 Nutritional knowledge among Italian secondary school students: a cross-sectional study - **Federica Limongi**
- 14.45-15.00 Nutritional education and elderly engagement: an effective model to improve dietary habits in line with the mediterranean diet - **Stefano Predieri**
- 15.00-15.15 Food and Active Ageing: Inclusive Policy Recommendations - **Elena Pagliarino**
- 15.15-16.15 **POSTER AWARDS (5 MIN. PRESENTATIONS)**
- 16.15-16.30 Conclusions and Closing Remarks

### **Scientific Committee**

Antonia Gallo, Antonio Francesco Logrieco, Mario Magliulo, Sara Marinelli, Angelo Santino, Federica Tenaglia

### **Local Organizing Committee**

Stefania Crispi, Mario Magliulo, Gianna Palmieri