SEMINARS

1 CFU (4 hours + 4 hours on 23 and 24 March 2025)*

27 March 2025 - Room H Polo di Geologia Time: 09-11

27 March 2025 – Room K Polo di Geologia Time: 14-16

Computational Approaches for Screening and Predicting Bioactivity - 27 March 2025 9-10

Advanced computational tools, including molecular docking and AI-driven modeling, enable the identification of plant compounds with high affinity for clinically relevant receptors and enzymes. These methods accelerate the discovery of bioactive molecules by simulating interactions before experimental validation.

Bridging Plant Chemistry and Human Health Applications - 27 March 2025 10-11

By integrating plant biosynthesis insights with receptor-targeted studies, we can identify novel dietary compounds with therapeutic potential. This interdisciplinary approach links plant-derived nutrition with precision health strategies, paving the way for targeted dietary interventions.

Nutritional Bioactives and Their Molecular Targets - 27 March 2025 14-16

Plant-derived compounds interact with key receptors and enzymes in the human body, influencing metabolic and physiological responses. Understanding these interactions provides insight into how nutrition can modulate biological pathways for health benefits.

*3° anno dei CdS in Scienze Gastronomiche e Informazione Scientifica sul Farmaco e Scienze del Fitness e dei Prodotti Della Salute e per gli iscritti al 3°, 4° e 5° anno dei CdS in Farmacia e Chimica e Tecnologia Farmaceutiche

About the speaker

Zohar Kerem
Professor of Food Science
Head of External Relations at the RH Smith Faculty, Head, The international MSc program in Viticulture and Enology.
The Institute of Biochemistry, Food Science and Nutrition, Robert H. Smith Faculty of Agriculture, Food and Environment,
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Dr. Zohar Kerem is a distinguished professor of Food Science at The Hebrew University of Jerusalem, where he also serves as the founder of the international MSc program in Viticulture and Enology. He leads a research team that focuses on the chemistry of phytochemicals and uses computational tools to predict and elucidate receptor-ligand interactions in the gut, enzyme-inhibitor interactions, and cellular models to support predictions. The team is involved in various national and international projects, including the discovery of new biologically active natural compounds in edible plants, the development of novel antimicrobials, and the creation of high-protein food products from resilient crops.

Dr. Kerem is also an expert in chemical analysis of complex products and is involved in developing non-targeted analysis methods to combat frauds and adulterations in food and cosmetics. He has authored over 90 peer-reviewed manuscripts and has tutored more than 50 graduate students.

In addition to his academic duties, Dr. Kerem has served as the deputy chair of Israel's central committee for food standards, a member of the national committee for nutrition security, and the head of the expert committees for trade standards of olive oil and edible oils at the 'Standards Institution of Israel'. He is also Israel's delegate to the Chemists' Expert Group of the International Olive Council and a member of the USP Pharmacopoeia experts panel on olive oil authentication. Dr. Kerem is an invited speaker and organizer of international conferences in the fields of food, nutrition, and food security