

Francesco VISIOLI



Prof. Francesco Visioli earned a degree in Pharmacy and Pharmaceutical Chemistry from the University of Milan and a PhD in Biotechnology from the University of Brescia (based on work performed at the Louisiana State University Neuroscience Center). After being Full Professor of physiopathology at the Université Paris 6 “Pierre et Marie Curie”, where he directed the “Micronutrients and cardiovascular disease” unit, and being Senior Investigator at the Madrid Institute for Advanced Studies (IMDEA)-Food, he is now Professor of human nutrition at the University of Padua, Italy. Formerly involved in neurochemistry, Dr. Visioli’s research currently concerns essential fatty acids, namely those of the omega 3 series, and (poly)phenols, as related to atherosclerosis and cardiovascular disease. In particular, Dr. Visioli’s group discovered the biological and pharmacological properties of olive oil phenolics, including hydroxytyrosol. In addition, Dr. Visioli



is being studying some bioactive components of plant foods, including lycopene from tomato and biophenols from wild greens. His research ranges from in vitro studies of bioactivity (test tubes, cell cultures) to in vivo tests, performed on laboratory animals and/or humans. Dr Visioli has a publication record of more than 250 papers and book chapters, which have been cited over 13,000 times. He gave invited lectures in over 100 meetings.

Dr. Visioli was member of the Board of Directors of the International Society for the Study of Fatty Acids and Lipids (ISSFAL). Currently, Dr. Visioli is the Editor-in-Chief of PharmaNutrition, Associate Editor of Prostaglandins, Leukotrienes and Essential Fatty Acids, in addition to being a member of the Editorial Board of several other journals. Presently, Dr. Visioli is Leader of the “Fats and Human Health” division of Eurofed Lipid and was member of the EFSA GMO Panel. **Department of Molecular Medicine, University of Padova (Italy) and IMDEA-Food, Madrid (Spain)**

Future diets between health and sustainability

The global population is growing rapidly and we need to produce more food to sustain it. In addition, the prevalence of poverty and extreme poverty is decreasing, meaning that more people have access to food. The combination of these two phenomena is putting the food chain under unprecedented stress. Future diets must concomitantly be nutritious and sustainable. Currently, we need to overcome several hurdles, starting from the definition of “sustainable”, which is becoming a buzzword in advertisement. One of the best definitions is that of sustainable diets as those diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets must be protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair, and affordable; nutritionally adequate, safe, and healthy; while optimizing natural and human resources.

The Food and Agriculture Organization’s (FAO’s) definition of a sustainable diet consists of four dimensions: (1) nutrition and health, (2) economic, (3) social and cultural, and (4) environmental. Sustainable diets not only have a low environmental impact but are also healthy, affordable, and acceptable to society.

The challenge is particularly difficult for those living in low- and middle- income contexts and in countries where tremendous inequalities force policy makers to make difficult decisions about what to prioritize. Developed countries should not force developing one into adopting purportedly sustainable diets if the latter are emerging from poverty.

Conversations about sustainable diets play out differently in low-priced versus high-priced environments. For example, decisions about holding land aside from agricultural production are easier to make in a low-priced environment, whereas the economic incentive to prevent food waste is stronger in a high-priced environment.

This lecture reviews the past and present of diets while trying to identify future patterns and challenges across the food chain.