

# Olive Oil and Health: New Frontiers and Partnerships for Research and Education

## **Vasilis Vasiliou**

Vasilis Vasiliou, is Professor and Chair of the Department of Environmental Health Sciences. He received his BSc in Chemistry (1983) and PhD in Biochemical Pharmacology (1988) from the University of Ioannina, Greece. He then trained in gene-environment interactions, molecular toxicology and pharmacogenetics at the Department of Environmental Health in the College of Medicine at the University of Cincinnati (1991-1995). In 1996, he joined the faculty of the University of Colorado School of Pharmacy where he rose through the ranks to become Professor and Director of the Toxicology Graduate Program. Since 2008, he was also Professor of Ophthalmology at the University of Colorado School of Medicine. In July 2014, he joined the faculty of Yale University in his new position.

Professor Vasiliou has established an internationally-recognized research program that has been continuously funded by NEI/NIH and NIAAA/NIH since 1997. His research interests include mechanisms of cellular responses to environmental stress, gene-environment interactions, alcohol toxicity, pharmacogenetics and the evolution of gene families. His research focuses on the role of aldehyde dehydrogenases, cytochrome P-450s and glutathione in metabolism and disease (specifically, alcohol-induced tissue injury, diabetes, gout and cancer).

Dr. Vasiliou has published over 140 papers and edited a book on Alcohol and Cancer. He has trained over twenty doctoral and post-doctoral students. Dr. Vasiliou is the editor of Human Genomics and serves on the editorial boards of several toxicology and visual sciences journals.

## **Tassos C. Kyriakides**

Dr. Kyriakides collaborates with clinical researchers on numerous research projects and he provides statistical consulting on numerous research protocols. He has been an abstract mentor for young researchers at the International AIDS Conferences since 2012, leads the VACSPCC internship program and is a statistical reviewer for high-impact medical journals (Lancet Infectious Diseases and the Lancet Gastroenterology & Hepatology).

He is also a Senior Biostatistician and currently Acting Deputy Director at the Department of Veterans' Affairs Cooperative Studies Program (VACSPCC-West Haven) and has worked on pivotal clinical trials (The OPTIMA Trial, a multi-national HIV/AIDS treatment clinical trial; a surgical clinical trial (The OVER Trial); and a PTSD clinical trial (The VIP-STAR Trial)).

Even though his primary research focus is in the area of infectious diseases with particular emphasis on HIV/AIDS and its treatment, he has an interest in the history of medicine, social determinants of health and the socio-cultural dimension of the

benefits of Greek/Mediterranean nutrition. He has recently been certified as an Olive Oil Sommelier by the International Culinary Center and the Olive Oil Education Lab in NY City.

### **Joe Profaci**

Joseph R. Profaci is the Executive Director of the North American Olive Oil Association. The North American Olive Oil Association includes members whose products represent approximately 85% of the olive oil brands sold at retail in the U.S. Previously, Mr. Profaci served as General Counsel for Colavita USA for almost twenty-five years.

### **Kimberly Houlding**

Kimberly Houlding is the President and CEO of the American Olive Oil Producers Association (AOPA). Her previous work includes Director of Operations of the Fresno County Farm Bureau and Field Representative for Congressman George Radanovich (CA-19), specializing in agriculture and water issues. She grew up in Madera, California where her family has been farming for four generations. Houlding holds a Bachelor of Science in Agricultural Business with concentrations in Policy, Communications and Water Science from California Polytechnic State University, San Luis Obispo. In 2017 she was appointed to a four-year term (2017-2021) on the Agriculture Technical Advisory Committee for processed foods (ATAC) for the USDA and USTR.

### **Alexandra Devarenne**

Based in California, Alexandra Kicenik Devarenne is an international olive oil consultant, writer and educator. She has written on many aspects of olive oil for both popular and scholarly publications and is the author of the reference book Olive Oil: A Field Guide. An official olive oil taste panel member since 2003, she has been involved in organizing and teaching olive oil courses at domestic and international venues since 2004. She also has served variously as chair, judge and advisor at numerous olive oil competitions at home and abroad, including Olive Japan, Australian Olive Association International, Athena International, Napa Valley, Los Angeles International, California State Fair and others.

Her olive oil work started with research at the University of California Cooperative Extension and although freelance since 2007, she continues to cooperate with the scientific community. She is co-founder and CEO of Extra Virgin Alliance (EVA) an international trade association dedicated to olive oil quality. EVA works to inform the trade and consumers about olive oil, to connect consumers and quality extra virgin olive oil producers, and to celebrate the rich culture and culinary use of this extraordinary food.

### **Joan González- Bueno**

Joan González- Bueno grew up in family of olive growers that goes back several generations. He has a bachelor's degree in history and a master's degree in international development. For some years he worked in several development projects in Ecuador, but soon he embraced family tradition and become an extra virgin olive oil (EVOO) producer, launching his own brand: Tierra Callada. He currently lives in New York where he commercializes Tierra Callada for the US and he also coordinates

different activities to promote EVOO. This includes, among others, the organization of EVOO workshops and tastings sessions, and the development of themed EVOO dinners with Chefs.

### **Maria Kapsokefalou**

Maria Kapsokefalou is Professor in Human Nutrition at the Agricultural University of Athens, Greece. She is also a member of the National Council for Research and Innovation at the Ministry of Education, of the Hellenic Food Safety Authority and of the National Committee on Nutrition Policy in Greece and the Vice President of the Hellenic Pasteur Institute. Maria Kapsokefalou is also the Deputy Rector in Student Life, Academic collaborations and Outreach at the Agricultural University of Athens (term ends 31/8/2018). As the Deputy Rector, she implemented the vision of the Agricultural University of Athens on the growth of a new academic environment enabling improved education, research and outreach that address the sustainable development of the agro-food sector in Greece. Her research activities aim to the promotion of Public Health through better nutrition. She investigates health benefits of bioactive compounds and novel and functional foods, linking Nutritional Sciences and Food Science. She evaluates dietary intake in the general adult population and in children, pregnant women and older adults. She also studies food aid models and food policy measures that aim to alleviate food insecurity in vulnerable populations, such as school lunches, food packages, food banks etc.

### **Catherine Peyrot des Gachons**

Drs. Gary Beauchamp and Catherine Peyrot des Gachons work at the Monell Chemical Senses Center, an independent non-profit scientific institute dedicated to research on the chemical senses: taste, smell and chemesthesis. Monell's overall mission is to conduct multidisciplinary basic and clinical research on these senses as they relate to human health and well-being. Their research looks at how sensory stimuli are perceived in the oral cavity and how the body responds to them. One component of their work investigated the identification of the ion channel (TRPA1) mediating the unusual throat pungency of oleocanthal (or p-HPEA-EDA) and related compounds in Extra-Virgin Olive Oil.

### **Gary Beauchamp**

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### **Maria Halabalaki**

Maria Halabalaki obtained her degree in Pharmacy (1998), her masters (2001) and her Ph.D. (2005) from University of Athens, Department of Pharmacognosy and Natural Products Chemistry. She was trained in mass spectrometry and proteomics during her Post Doc (2005-2007) at the FBRAA Centre for Basic Research - Biotechnology Division. After this period she expanded her

expertise mainly in analytical techniques and metabolomics though short and long stays in several laboratories (e.g. University of Innsbruck – Austria, University of Geneva - Switzerland, University of Basel Geneva – Switzerland) and companies abroad (e.g. Bionorica - Austria). From 2009 till 2017 she worked as teaching staff of the Division of Pharmacognosy and Natural Products Chemistry, Faculty of Pharmacy, University of Athens. In 2015, she was awarded with Egon Stahl in silver, a medal, a document and a monetary prize for recognizing and promoting young scientists working in the field of Pharmacognosy (Pharmaceutical Biology) and Analytical Phytochemistry. From 2017, she is Assistant Professor at the same Department.

To date, she has been the author of more than 90 papers in referred journals and her work has been also presented in more than 100 national and international conferences. Also, she belongs at the coordinating team of 6 EU projects, 3 National ones and she is the facilitator of 2 EU and 1 National research project. Her main scientific interests involve the separation and isolation of natural products using chromatographic techniques (VLC, MPLC, FCPC, HPLC) and the structural elucidation of natural products via spectroscopic methods (UV-Vis, IR, GC-MS, LC-MS, 1&2D NMR); development and application of chromatographic methods (HPLC-DAD, LC-MS and UHPLC-HRMSn) for the qualitative and quantitative evaluation of natural products in plant extracts as well as biological substrates (plasma, serum, urine, cells, tissues). The recent years, her scientific interests focus on the development and application of analytical methods for qualitative and quantitative characterization of plant extracts, foods, nutraceutical, cosmeceuticals and natural products; quality control aspects; metabolomics/metabonomic approaches using NMR and LC-MS platforms for the discovery of biomarkers; dereplication and investigation of mechanism of action of natural products (metabolomics in-cell, metabolism of natural products).

### **Leandros Skaltsounis**

Leandros A. Skaltsounis is Full Professor and director of the Department of Pharmacognosy and Natural Product Chemistry, (DPCNP) Faculty of Pharmacy, National & Kapodistrian University of Athens. He is leader of a research group of more than 30 researchers with numerous international collaborations, interested in the valorization of natural sources and the application of all state-of-the-art techniques for the discovery and isolation of bioactive compounds and the development of analogues.

In 2013 he created Pharmagnose SA, ([www.pharmagnose.com](http://www.pharmagnose.com)) a very successful spin off company of the University of Athens dealing with natural product chemistry and biology, where many young scientists are currently working.

The main objective of DPCNP is the study of natural compounds with the aim of producing important knowledge and new applications of high added value in the pharmaceutical, cosmetic, and agricultural sectors. DPCNP is considered to be one of the most modern research centers in the field of natural products in Europe. The main research activities of DPCNP are related to the discovery of bioactive natural products with various applications such as pharmaceutical, nutritional supplements, cosmetics and agrochemicals based on Greek, Mediterranean and global biodiversity. In particular, it deals with: a) Extraction and isolation of natural products at laboratory and pilot scale, focusing on the application of advanced techniques and optimisation of extraction / isolation protocols, b) Development and application of analytical methods for the qualitative and quantitative characterization of extracts, fractions and pure compounds; in identifying the structure of the isolated compounds,

and c) Evaluation of the biological activity. One of the main research interests of the DPCNP have included the study of olive oil, emphasizing on its industrial use as source of bioactive compounds, its qualitative assessment and the study of the effect of its bioactive ingredients on chronic human diseases.

### **Dimitris Kouretas**

Professor Dimitrios Kouretas is has been the director of the Laboratory of Physiology and Toxicology in the Department of Biochemistry and Biotechnology in the University of Thessaly since 2000. His research group's main research objects include:

- Oxidative stress and exercise
- Molecular mechanisms of antioxidant activity of plant polyphenols
- Antioxidant activity of plant extracts
- Functional food and exercise
- Antitumor activity of plant extracts and phytochemicals

### **Khalid El Sayed**

Dr. El Sayed has been working on natural products research for 25 years. His laboratory has published more than 137 papers, 5 chapters, and filed and awarded 13 patents on novel natural product entities and applications. Among these patents was the discovery of a novel cost-effective, environment friendly, simplified method for the isolation of oleocanthal and other olive phenolics without the need to use reversed phase chromatography. This technology enables large-scale isolations of olive phenolics for perspective future commercialization and clinical trials.

### **Amal Kaddoumi**

Amal Kaddoumi, a Professor at Auburn University's Harrison School of Pharmacy, Department of Drug development and Discovery. My research focuses on experimental therapeutics that include drugs development, identification of novel therapeutic targets and translational research devoted to finding therapies for neurodegenerative diseases including Alzheimer's disease (AD) and cerebral amyloid angiopathy (CAA).

### **Diomedes Logothetis**

Diomedes Logothetis is professor of Pharmaceutical Sciences, Bouvé College of Health Sciences, Northeastern University. His research interests include:

- Phosphoinositide signaling to ion channels and membrane proteins
- Heteromeric G protein coupled receptor (GPCR) signaling in health and disease
- Mechanisms of action of small molecule ligands on ion channels and GPCRs

## **Mary Flynn**

Dr. Flynn developed a plant-based, extra virgin olive oil in 1999 and has been using it in research since that time. She has completed small studies showing that her diet, compared to control diets, will result in better weight loss in female breast cancer survivors; improvement in glycemic control in men with prostate cancer; and decreased food insecurity, body weight, and fasting blood glucose in low-income participants.

Flynn wrote two reports for the US Davis Olive Center: "Olive oil as Medicine: the effect on lipids and lipoproteins" (2015) and "Olive oil as Medicine: the effect on blood pressure" (2015)

She has lectured on the health benefits of extra virgin olive oil for the past 10 years.

## **Prokopios Magiatis**

Expert in olive oil chemistry (development of new analytical methods, isolation and structure elucidation of olive ingredients)

## **Eleni Melliou**

President of the non-profit organization World Olive center for health. Teaching staff of the Faculty of Pharmacy, University of Athens

Expert in olive oil chemistry (development of new analytical methods, isolation and structure elucidation of olive ingredients)

## **Anthony Midey**

Anthony Midey is a Senior Application Support Scientist with the demonstration laboratory at Waters Corp. in Beverly, MA. He provides both pre- and post-sales customer education, training, and application development support for direct sample analysis methods with mass spectrometry, covering applications from food analysis to biomedical research areas. He has been with Waters since 2015 and worked in the analytical instruments industry for over 9 years. Anthony did his Ph.D. in mass spectrometry at the University of Rochester in NY and conducted research at the Air Force Research Lab for many years prior to entering the private sector.

## **Konstantinos Mammasis**

Konstantinos holds a PhD in Electrical and Electronic Engineering from the University of Strathclyde, Glasgow. He has been a Senior Researcher with numerous publications in top ranking international journals and is currently serving as an IEEE member. He has industrial and academic experience working in top research institutions and companies in the U.K. and Italy, participating in various projects that relate to three-dimensional channel characterization for wireless communications. He is currently the Founder of MILESTONE®, a nutraceutical brand with specialization in biofunctional foods and natural nutritional supplements. Konstantinos is interested in novel technological methods for increasing the phenolic compounds in base oils.

## **Mark Duncan**

Mark W. Duncan, Ph.D., Director of Application Development & Scientific Affairs, Target Discovery Inc has extensive experience in mass spectrometry, clinical diagnostics and analytical chemistry. Dr. Duncan was a Postgraduate Scholar at the Garvan Institute of Medical Research, Sydney, Australia and thereafter, a Fogerty Fellow, National Institute of Neurological Disorders & Stroke, National Institutes of Health (NIH), Bethesda, MD. He has held appointments as a Professor (Medicine) at Universities in Australia, the USA and Saudi Arabia and has established and directed proteomics/MS centers at three international institutions. He has also held senior appointments in industry and is a co-developer of Veristrat<sup>®</sup>, a blood-based diagnostic used in the management of patients with non-small cell lung cancer marketed by Biodesix, Inc., Boulder, Colorado. He has published over 150 publications and has 8 issued patents. Dr. Duncan is co-editor, Special Features, Journal of Mass Spectrometry, he is on the editorial board, Journal of Clinical Mass Spectrometry and he is a member of the Committee on Quantitative Measurement of Proteins & Peptides by MS (C64), Clinical & Laboratory Standards Institute.

## **Nicolas Netien**

Nicolas Netien is an environmental engineer, specialised in Agro-ecology design for dry environment. He is currently the manager of Atsas farm in Cyprus, an example of agro-ecological olive grove that produces the olive oil with the highest phenolic content ever recorded in the world.

## **Nikos Comoutos**

Nikos Comoutos is Associate Professor in Psychology of Physical Education and Sport at the Department of Physical Education and Sport Sciences, University of Thessaly in Greece. He has co-authored more than 50 articles in international peer-reviewed journals, and 6 chapters in international handbooks of sport and exercise psychology, and serves as a referee in more than 30 journals of sport and exercise psychology. He is president of the Hellenic Society of Sport and Exercise Psychology (HSSEP) and member of the Managing Council of the International Society of Sport Psychology - (ISSP – world association). Editorial assistant of the International Journal of Sport and Exercise Psychology (2008-till now), Co-Editor of the Bulletin Board (2011-2013), editorial board of the Journal of Sports Sciences, section editor of sport sciences of Cogent Psychology and Cogent Medicine. Editor of the Hellenic Journal of Sport Psychology.

In 2015, he inherited Comoutos estate and from that time he is certified as an olive oil taster by Oliveoilseminars.com and the Italian National Organization of Olive Oil Tasters (ONAOO). He has attended seminars for olive grove management, olive oil technology and modern techniques for olives pruning by Oliveoilseminars.com. His main objective is to implement the latest agricultural and technological methods to produce high quality EVOO. In his free time, enjoys playing with his two sons George and Alexander.

## **Spiros Mourelatos**

Spiros Mourelatos is the founder and president of Ecodevelopment S.A, a private company dealing with wide area mosquito control for 22 years and precision agriculture projects for 4 years. He holds a PhD in hydrobiology from the University P&M

Curie, Paris, France, with significant academic work in his scientific field and considerable experience in environmental management. His work has been published in scientific journals and he actively participates in international fora and conferences (525 citations). He is recognized as one of leading experts in mosquito control on an international level: Former President of the European Mosquito Control Association (EMCA). Ecodevelopment is one of the leading companies working currently on Precision Agriculture in Greece, providing high tech consulting services for farmers in rice cultivation, olives, vineyards, cherries and herbs.

### **Nicholas Coleman**

Nicholas is an international olive oil expert, educator, speaker and co-founder of Grove and Vine, a bespoke full-service olive oil procurement center. He has taught oil courses for The International Culinary Center, Zagat's Master Class, Bon Appetit, The Institute of Culinary Education, Cornell, NYU and Columbia University, Platinum Country Clubs and to Joe and Lidia Bastianich's critically acclaimed chefs and sommeliers nationwide.

Nicholas finished top of the class from The National Organization of Olive Oil Tasters (ONAOO) and was Chief Oleologist at Eataly from 2010-2017, during which he opened four stores with the company and trained thousands of employees. He has been a judge at The New York International Olive Oil Competition and the Sol D'Oro Southern Hemisphere Competition in Santiago, Chile. Over the past decade he's developed and maintained relationships with producers from all over the world.

He has been featured in The New York Times, GQ, Esquire, Food & Wine, Viceland, The Los Angeles Times, La Cucina Italiana, Real Simple Magazine and Lucky Peach among others. He is an honorary member of the International Order of Disciples of Escoffier and a bicoastal professor for the International Culinary Center's olive oil sommelier certification course in California and New York City.

### **Ilias Mamalakis**

Ilias Mamalakis comes from the musical island of Crete. For over a 100 years his family has been producing olive oil, and ever since he was young he has had a very close relationship with olive oil. He studied economics and worked as a sales manager for agricultural products companies. He quickly abandoned that career path and started his career as a chef, something he is passionate about. His work has been internationally accepted and has received numerous international and Greek cooking awards. He has focused a lot of his work in the artful combination of food tastes

### **Rafi Taherian**

Rafi Taherian, Certified Executive Chef '95, is Executive Director of Yale Dining. His work history encompasses more than 25 years of progressive expertise in hospitality leadership. Prior to joining Yale in 2008, Rafi spent 13 years at Stanford University, where he served as executive director for Stanford Dining.

At Yale, his responsibilities include building and developing high-performing teams through focused and benevolent leadership



and directing the department's strategic planning and initiatives focused on ensuring operational excellence in the delivery of over 14,000 meals per day in 31 food service operations. His team is responsible for residential college and graduate student dining, retail, convenience stores, cafés, catering, executive services, a commissary, and a bakery. He has been recognized nationally as a seasoned veteran in piloting various industry leading sustainability initiatives and has received numerous awards for his vision and leadership in conceptualizing and implementing innovative hospitality programs.

Rafi is a member of the Sustainable Business Leadership Council for Menus of Change: The Business of Healthy, Sustainable, Delicious Food Choices, an initiative developed by The Culinary Institute of America in collaboration with the Department of Nutrition at the Harvard School of Public Health.