

IUFoST Scientific Roundtable Discussion (SRD8) on Food Culture and Traditional Foods, April 2021

Panelists (listed in alphabetical order)

Professor Jaime Amaya-Farfan, Brazil



Biography: Jaime Amaya-Farfan, Ph.D., Professor (retired), University of Campinas, SP, Brazil since 1976. Was department chairman for two terms, and vice-President (acting President) of the Brazilian Society of Food Science & Technology (sbCTA). Has been a member of the organizing committees of various inter-Latin American scientific symposia and courses, including the SLACAs. Has taught the chemistry and transformation of food proteins, the biochemistry of micronutrients and bioactive substances for 25 years. His most recent contributions to the area of food science, technology, and nutrition are on the health effects of processing and, particularly the proteins, with living organisms. His latest research interests have focused on the association between dietary proteins, dietary stressors, and the role of the gut microbiota in long-term food safety. He has mentored more than 60, both Master and Ph.D. students, written over 140 original research and review papers, and books and book chapters by international publishers. He is an IAFoST Fellow.

Presentation: Traditional foods of South America. What they meant to Food Security

Abstract: For over 10 millennia, descendants of the early migrants to the South American continent have subsisted on diets based on potatoes, maize, marine fishes, and meats of small and medium-size animals. Tradition has preserved soups and stews made with nutritious grains, tubers, and fruits unique of the Andes mountain chain and the greater Amazon region. With the arrival of Spanish and other Europeans, the pre-historic diets were challenged but survived, and were further modified with the arrival of Asian immigrants, on the West, and African on the East. Among the most popular dishes. While Colombia, Ecuador, Peru, and northern Chile conserve diets based on fisheries and the unique Andean grains, southern Chile and Argentina, instead, depend more on European dishes. Brazil's diets, in turn, vary widely from the creative African, to the traditional Portuguese and Italian cuisines, but counting on the enormous Amazon resources.

Professor Lara Hanna-Wakim, Lebanon



Biography: Lara Hanna-Wakim is the Vice-Director for the Higher Center for Research at the Holy Spirit University of Kaslik (USEK), Lebanon since September 2019. She served as Dean of the Faculty of Agricultural and Food Sciences at the Holy Spirit University of Kaslik from 2013-2019.

Dr. Hanna-Wakim is serving as Senior International Officer (SIO) at the Academy of Leaders in International Higher Education (AIEA), Duke University, North Carolina, USA. She is the National Coordinator in Lebanon for the "Faith for Earth Initiative" at the UNEP and has served as Focal Point for Lebanon of the Arab States Green University Network (ASGUN) at UNEP, and the National Food Safety Expert at UNIDO.

She's nominated by the Lebanese Minister of Education and Higher Education as National Contact Point (NCP) for "Climate action, resource efficiency and raw materials" for the EU Commission within Horizon 2020 Framework Programs. She has been honored, at the Lebanese Parliament,

as Women Leader in Lebanese Universities and Research Pioneers, by the National Initiative for the Centennial of Greater Lebanon.

Dr. Hanna-Wakim holds a PhD in Food Process Engineering from AgroParis Tech (Paris, France), an MS in Quality Assurance from INAP-G (Paris, France), an Agricultural Engineering Diploma from USEK (Lebanon), an MS in Teaching and Learning in Higher Education from Norwich University (USA) and an MA/PG Diploma in Learning and Teaching in Higher Education from University of Chester (UK). Dr. Hanna-Wakim is a Fellow of IAFoST.

Presentation: The Mediterranean Diet: A Manifestation of Culture, Resilience and Public Health

Abstract: The regions in the Middle East follow a Mediterranean Diet (MD), which has become globally reputable because not only it provides a cultural heritage, but it also encompasses an assemblage of food components that offer scientifically potent health benefits while proving to be a food model that favors environmental sustainability, biodiverse and resilient food production.

This diet, which is adopted in regions around the Mediterranean basin since the beginning of its ancient civilizations, is based on a large proportion of fruits and vegetables, limited amounts of red meat, and moderate amounts of fish meat and dairy products. The fat source is usually of plant origin, commonly from olive oil. The diet also includes moderate consumption of certain types of alcohol such as wine. Adhering to this diet provides several attributed health benefits including, but not limited to, reducing the risk factors of several non-communicable diseases. Due to its recognizable benefits, its cultural heritage, its traditional practices and its reduced environmental impact, this diet should be preserved and promoted globally.

Dr. Hiroya Kawasaki, Japan



Biography: Hiroya Kawasaki, Ph.D, is Associate General Manager at Sensory & Consumer Insight Group, Institute of Food Sciences and Technologies, Ajinomoto Co., Inc. He obtained the Ph.D. in Nutrition Chemistry from the Graduate school of agriculture, Kyoto University, Japan, on May 2004. From April 2004, he joined Institute of Food Sciences and Technologies, Ajinomoto Co., Inc.

His main research interests include: i) the culinary science of professional cooking techniques in Japanese, Chinese, and French cuisine, and ii) the sensory evaluation techniques (temporal changes of sensory qualities using Temporal Dominance Sensations and Temporal Check-All-That-Apply methods). He is the author or co-author of several publications on these topics published in International, peer-reviewed journals, book chapters, and conference proceedings.

He is member of The Japan Society of Cookery Science and The Japanese Association for the Study of Taste and Smell. He is currently Board of Directors of the Non-Profit

Organization, Japanese Culinary Academy.

Presentation: Designing dishes using UMAMI in Washoku, Japanese cuisine

Abstract: In recent years, Washoku, Japanese cuisine has become popular all over the world. For Japanese cuisine, there are many dishes whose main ingredients are fishes, vegetables, and condiments containing UMAMI taste substances are used. In Japanese cuisine, UMAMI taste substance has been efficiently extracted from foodstuffs and devised how to use it. Especially, it seasoned with vegetables and carbohydrates with UMAMI taste of dashi (Japanese bouillon) or soy sauce and made it tasty. Dashi is a product obtained by extracting UMAMI taste substances into hot water from dried and concentrated foodstuffs, such as kombu seaweed, bonito or mushroom. Why is UMAMI important for Japanese cuisine? Thinking about the role of dashi in Japanese cuisine solves that

question. I talk about comparison between dashi and western cuisine's bouillon. Finally, I will explain practical usage of UMAMI in Japanese cuisine.

Professor Cherl-Ho Lee, Korea



Biography: Cherl-Ho Lee was a professor of Food Engineering and Food Preservation at Korea University from 1979 to 2010. He received his Ph.D. at the Royal Veterinary and Agricultural University of Denmark and post-doctorate training at MIT, U.S.A. He was project coordinator of Fish Fermentation Technology Network of United Nations University, and project director of Industrialization of Lactic Acid Fermentation Technology of Cereals and Its Dissemination to the Developing Countries for UNIDO. He chaired the ICGFI Workshop on Harmonization of procedures and regulations on food irradiation for Asia and Pacific held in Seoul, April 27-29, 1998. He was the Secretary General of the 11th IUFOST World Congress of Food Science and Technology which was held in Seoul 2001. He co-chaired the KCIST-2006 on Nutrigenomics held in Muju, July 20-22, and chaired the 15th Session of FAO/WHO Codex Coordinating Committee for Asia held in Seoul in November 21-24, 2006. He was the President of Korean Society for Food Engineering in 2003-2004, the President of Korean Society of Microbiology and Biotechnology and the President of Korean Federation of Microbiology Societies in 2000, the President of Korean Society of Food Science and Technology and the President of Federation of Korean Food Related Societies in 2007. He was the President of ILSI Korea in 2004-2010. Professor Lee has been a member of Korean Academy of Science and Technology since 1999, and member of International Academy of Food Science and Technology since 2003. After his retirement from Korea University in 2010, he established Korea Food Security Research Foundation, and served as the chairman of the Foundation until 2020. He has published over 270 research papers and 30 books in Food Science and Technology and Food Security.

Abstract: Recently I published a book in Korean – A History of Korean Food (Korean Foodways from Prehistory to the Present). This book offers an updated, chronological cultural anthropology of Korean foodways. The origin of Korean food culture has not been studied properly, due to the destruction of many source materials in the 20th century and competing national views on the early history of Korea; this book aims to correct misinformation and use recent archeological findings and early Korean history studies to provide a basis for the origin of cooking methods and fermented foods (e.g., grain wine, kimchi, jeotgal, and soybean sauces) by emphasizing the importance of the Primitive Pottery Era in Korea Strait region in BCE 8000-5000. In addition, a thorough survey of classical literature reveals the historical background and manufacture methods of traditional food categories, such as rice cakes, sweets, fermented sauces, and alcoholic and non-alcoholic beverages. This book also examines changes in Korean food culture brought about by recent historical events, and wraps up by prognosticating future contributions of Korean foodways to the world, particularly regarding the latest research on the intersection of food and Traditional Eastern Medicine.

Dr. Lijing Ke, China



Biography: My major research interest is the active components and micro/nanostructures in traditional Chinese food and medicine, as well as the underlining biological mechanism of their functions. With growing evidence, the chemical modification (i.e. Maillard reaction) and the self-assembled colloidal particles of food components are of great importance to their functions.

I've worked as a Researcher at a Food Biochemistry lab led by Prof. Pingfan Rao at Fuzhou University (China) for a few years, until I received Ph.D. degree in Biochemistry and Biophysics from The University of Edinburgh (U.K.) in 2011. Since 2013, I joined Zhejiang Gongshang University in Hangzhou (China) and led a Food Micro/nanostructure research team at the Food Nutrition Sciences Centre.

Presentation: Less is more, hidden functions of food beyond nutrition (Salt and Soup – Unifying Health and Good Taste)

ABSTRACT: PPT

Professor Ruth Oniang'o (Kenya)



Biography: Dr. Ruth Oniang'o is a professor, researcher, African Food Prize Laureate and has been honored by her own government of Kenya for her work to eradicate poverty and hunger in Kenya, by working with smallholder farmers for the past 3 decades and helping to formulate food and nutrition security policies. She received Kenya's Silver Star and Distinguished Service Medals.

Ruth founded Rural Outreach Africa (ROA) in the early 1990s and continues to be a clear and profound voice in research for development as an international consultant and speaker. As the founder and editor of the African Journal of Food, Agriculture, Nutrition and Development (AJFAND), Ruth seeks to improve policy and decision-making through the dissemination of significant scientific findings and emerging technologies in the field, and thus serving as an influencer on the continent and globally. The journal marks 20 years this

2021 since inception.

Through ROA programs, Ruth Oniang'o has transformed the lives of many rural poor families in the districts of western Kenya and the environs. Lessons learnt from here are shared globally, regionally and nationally. She serves on a number of boards as advisor on African issues related to hunger, nutrition and poverty.

Currently she advises on issues of food and nutrition, from a rights perspective for vulnerable groups: resource poor women, children and those living in poverty and with disability. She is passionate about research for development, mentoring and giving a voice to African scholars in the field of food systems to share their expertise on how to solve Africa's food problems. She enjoys getting involved in trying to find answers to many food systems related challenges, and also believes in mentoring for the future.

Abstract: Africa is a huge multi-ethnic continent, with many tribes and sub-tribes, with many food cultures that are quite diverse. What I present here may even not be representative of Africa's cuisine and food traditions. All I know is that it is a rich story that covers the very basic natural ingredients, to fairly advanced adoption of what is consumed in other cultures. With the pandemic, there is opportunity to rediscover our foods, herbal medicines, and to seriously consider their nutrition and how what we do sustains the environment and secures the future. Food has huge impact in the scheme of things now and how we interact with it will determine how humanity survives going forward. We need to share all these practices for the benefit of all.

Professor Rekha Singhal



Biography: Rekha S. Singhal is a professor of food technology at Institute of Chemical Technology (formerly UDCT of University of Mumbai) with 32 years of experience in teaching various courses in food science and technology at undergraduate and postgraduate levels; and supervising 42 doctorates and 100+ masters in food science and related areas such as bioprocess technology and, food biotechnology. A passionate teacher and researcher, she is also involved in policy making levels in various Government bodies in India, and contributes to academic and research organizations in different capacities. She has been working on traditional Indian foods with an aim to understand the science and technology behind the product quality and process parameters, carbohydrate chemistry and technology, fermentative production and downstream processing of microbial metabolites, and on supercritical carbon dioxide

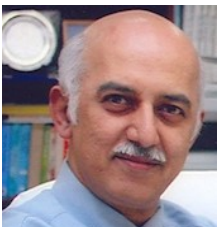
extraction of various bio-molecules.

Presentation: India's Strong Leadership Position in Traditional Foods strengthened by the use of Modern Scientific Tools to understand them

Abstract: 5000 years of documented traditional foods wisdom and practices to the modern scientific era and its use by current food processors with the intervention of R and D is a very unique positioning that India has in this area of food culture and traditional foods. India not only has its own rich cultural heritage, but is also a melting pot of various cultures, languages, climates, religions, and communities, all of whom have contributed to a rich diversity of traditional foods encompassing many cuisines employing a huge variety of ingredients and preparation methods. A closer look at traditional foods consumed in various parts of the country shows their efficacy and wisdom in intelligent use of resources available in each specific geographical region ranging from coastal to plains to hilly to desert, the perfection achieved in processing such foods that suit the palate along with nutritional perspective, safety protocols, and the combination of foods in typical meals that care of all physiological needs of the human body. Some of them have been verified by modern science but many need scientific documentation. It would not be an exaggeration to suggest that a proper Indian traditional meal is 'fully functional' as can be seen from abundant consumption of plant foods comprising of a wide range of fruits/vegetables, cereal/millet/legumes, dairy products and even animal based products. The scientific reasoning of every step in the process, be it marinating meats with lemon/yoghurt/spices or using gluten-free flat breads, probiotics through a mandatory consumption of buttermilk or yoghurt, and prebiotics through salads, and a vast range of immune boosting spice-rich flavourful accompaniments such as chutneys, papad and pickles and even mouth fresheners is truly mind boggling. The willingness of the young Indian to accept processed foods coupled with robust regulations (FSSAI), and the innovative spirit of entrepreneurs to ensure safe and nutritious foods is creating a path for the processing and marketing within and beyond the boundaries of Indian sub-continent. The role of marketing and positioning of many Indian foods in terms of qualities that are sought by the global community such as 'gluten-free', 'low-fat', 'fibre-rich' or 'low GI' need serious attention and focus from the stake holders. Indian food industry have taken the challenges of manufacturing traditional foods in a big way and have done the groundwork in various domains such as machinery design, process development, raw material selection, end product packaging, and preservation for shelf life extension.

Roundtable SRD 8 Co- Chairs and Rapporteurs

VISH PRAKASH – INDIA - IUFOST President



Dr. Professor Prakash is former Distinguished Scientist of CSIR India; Former Director of CFTRI Mysore; Past President of IAFoST; Chair of the IUFOST World Congress in Mumbai 2018; Founding Chairman of IFRIFANS, India, the International Foundation for Research in Food and Nutrition Security; member of numerous scientific publication boards; Chairman India Region of European Hygienic Engineering Design Group, Germany; Member, Global Phytonutrient Society (GPS) Tokyo, Japan; He has held the position of Vice President in IUNS, the sister Union to IUFOST. Elected to the IUFOST Board of Directors in 2018 and he is now President of IUFOST.

FEREIDOO SHAHIDI – CANADA – Roundtable Co-Chair



Dr. Shahidi is University Research Professor, Memorial University of Newfoundland; Founder and Director of the International Society of Nutraceuticals and Functional Foods (ISNFF), Disciplinary Group of IUFOST; Founder and Editor-in-Chief of related publications (Journal of Food Bioactives, etc), one of the most cited authors in Food Science and Technology. He is Chair of the IUFOST Scientific Council and a Fellow of IAFoST.

PINGFAN RAO - CHINA – Roundtable Co-Chair



Pingfan Rao, PhD, is Past President of IUFOST, Vice President of the Chinese Institute of Food Science and Technology (CIFST) and Professor and Director of the Chinese Academy of Science (CAS) Shanghai Institutes of Biological Sciences (SIBS)-Zhejiang Gongshang University Joint Center of Food and Nutrition Research. Professor Dr. Rao is editor-in-chief of Science of Food, a Nature Partner Journal. He is a fellow of IAFoST and Member of the IUFOST Board.

HONGDA CHEN – USA – Roundtable Rapporteur



Dr. Hongda Chen is the National Program Leader of Bioprocess Engineering and Nanotechnology at the National Institute of Food and Agriculture (NIFA), USDA. He leads the national portfolio of food science, engineering and technology in research, education and extension for advancing food processing and manufacturing technologies, and value-added products. He also provides the national leadership for nanoscale science and nanotechnology for agriculture and food systems. Dr. Chen is a Fellow of IAFoST and member of the IUFOST Scientific Council.

STEPHANE GUILBERT – FRANCE – Roundtable Rapporteur



Stephane Guilbert is Professor in Food Science at Montpellier SupAgro, France.. His research is grouped around three main axes i) state of water in foods in relation to their physicochemical and microbiological stability, ii) Mass transfer (gas, water, solutes) in food and packaging and iii) emerging technologies to face the new challenges of sustainable processing of agricultural products. He is co-editor of Innovative Food Science & Technologies (IFSET) journal edited by Elsevier. He is a member of the IUFOST Scientific Council and Fellow of IAFoST.