



IUFoST LIFETIME ACHIEVEMENT AND YOUNG RESEARCHER EXCELLENCE AWARDS

The Lifetime Achievement Award honours an individual for pre-eminence in and contributions to the field of food science and technology over his/her career. The individual will have made significant contributions to scientific knowledge with impact in the field.

The Young Researcher Award recognises an individual in the initial phase of her/his career for the potential to make outstanding scientific contributions and the potential for future scientific leadership.

<u>Year</u>	<u>Lifetime Achievement Award</u>	<u>Young Researcher Award</u>
2010	J. Ralph Blanchfield (UK)	Peng Zhou (China)

Professor J. Ralph Blanchfield, MBE, received the Lifetime Achievement Award for his tireless efforts “to enhance the status and professionalism of food scientists and technologists in the United Kingdom and globally. In addition, his contributions to technical and scientific policy and information are extremely significant. He has been recognized with a number of prestigious fellowships and awards.” Also cited was his role “as mentor of countless individual professionals. His commitment to personal and professional development is truly outstanding, resulting in capacity building of the next generation (or two) of food professionals.”

“Dr. Peng Zhou has made significant contributions to the analysis and stability of proteins in marine foods and in formulated protein bars. His findings in this latter area are already being put into practice by industry to control and/or prevent bar hardening. Peng has been recognized as an outstanding young scientist by being invited to present his research at the last IUFoST congress. He will also become a significant contributor to the Chinese CIFST community and to all the international food science and technology community.”

2011	Walter Spiess (Germany)	Rajeev Bhat (Malaysia)
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Professor Spiess received the Lifetime Achievement Award because he “has proven to be an outstanding leader in food technology research and development, in food science and technology education, and in organizing food professional and institutions. His career research work on food freezing and drying has not only substantially enriched the knowledge database, delivered a series of novel technologies to the industry but also generated remarkable impacts on the national and international food legislations and standards.” Also cited was Walter’s “dedication to issues around food/nutrient/water security and post harvest losses, carried out with a consistent theme of wisdom, passion and humanity.”

Dr. Rajeev Bhat received the Young Scientist Award because of his “his innovative research ideas, which are on the leading edge. The outcomes of his work could overcome protein energy malnutrition and poverty related issues in the developing regions of the world.” In addition “all his contributions through research on nutritional and anti nutritional components and quality evaluation of seeds of nutraceutical value after irradiation and storage as well as cancer biology and food toxicology studies have benefitted consumers and society. His primary research work is useful for providing evidence of health impacts on humans. His secondary research on food safety is very useful in designing proper HACCP along the food chain.”

2012

David Lineback (USA)

Yapeng Fang (China)

In being awarded the Lifetime Achievement Award Dr. Lineback was described by one nominator as "truly a giant in the world of food science and technology, and many of us have been fortunate and privileged to have stood on his shoulders."

"His notable participation in CODEX, FAO, WHO and technical societies was greatly appreciated and assisted in advancing the profession through a career of more than 50 years. One of the more important contributions was his chairing the review activities around the acrylamide issue. Without David's sure hand and even treatment the issue could have resulted in a real nightmare for the fried food industry. He was able to take a calming influence into the discussion and generate a final resolution that was acceptable to widely disparate parties. In all his years of service he was ever mindful of the importance of maintaining a balance between the developed and developing economies and the special needs of each category in the food arena."

Dr. Yapeng Fang received the Young Scientist Award for his substantial advancements in fundamental knowledge of food hydrocolloids. These findings have benefited the food industry, especially with regards to food structure design and functional food development leading to higher quality food products. His work has garnered him an international reputation and he is a much sought after speaker.

Dr. Fang's finding of binding ability of fatty acids by gum Arabic through hydrophobic interactions, using EPR (Electron paramagnetic resonance), is significant and will lead to the development of cholesterol reducing strategies, and promises to have untold global health benefits.

2013

Vishweshwaraiah Prakash (India)

Alonzo A. Gabriel (Philippines)

The **Lifetime Achievement Award** honours **Dr. Prakash** for his pre-eminence in and contributions to the field of food science and technology over his career. Recipients of this award make significant contributions to scientific knowledge with impact in areas such as food safety; food quality; human nutrition; product, process, and package innovation; food security (availability, accessibility, affordability); consumer acceptability; communication of food science and technology and regulations, or a combination of them.

Dr. Prakash was nominated by Professor M. S. Swaminathan, recognized as a leader in the Green Revolution and a recipient of the World Food Prize, who observed that Dr. Prakash's "contribution in the field of Food Science and Food Technology is globally recognized by one and all". He has received numerous awards and has over 200 publications and 50 patents under his name. Dr. Prakash developed many processes to produce nutritious food based on locally available raw materials, which were protected by patents to allow small companies access to the process technologies. Also of note is the impact of his activities through the boards of many international food-related organisations on the lives and nutrition of people in areas where healthy food is scarce.

2013 Young Scientist award-winner **Dr. Gabriel** is an educator, researcher and community worker whose extensive work has contributed substantially to the development of food science and technology in the Philippines. His advocacy and leadership in promoting Food Defense and Security, particularly in many

underdeveloped communities in the Philippines, exemplifies how Food Science can address many issues, limitations and challenges, especially in developing countries.

Dr. Gabriel has been recognized for his outstanding work on microbial growth and inactivation modeling for food safety and quality. His work on pathogen stress responses, adaptation, and inactivation in understanding microbial behaviors in food and food processing ecologies has had significant impact. He is also noted for his works in Precision Food processing dealing with the determination of alternative and unique process schedules for foods based on intrinsic food properties, extrinsic food process conditions, implicit food-borne microbial characteristics, and their interactions.

2015

Daryl B. Lund (USA)

Xianonan Lu (Canada)

During a career that has spanned more than 40 years, the IUFoST Lifetime Achievement Award winner, Dr. Lund, has established a global reputation for excellence in food science and technology arising from his multi- -disciplinary scientific contributions, leadership capability in several different sectors, extensive international involvement in research and education, and his ability to collaborate across academia, industry, and government, often involving all three. He is in high demand as a speaker and authority.

In the public sector, the level of Dr. Lund's recognition by peers is demonstrated by his participation on numerous government and academic boards and committees. He has served as a reviewer for the US National Science Foundation (the primary federal funding source for research funds in the US), the Swedish Research Foundation, the US National Institutes of Health, the USDA National Institute for Food and Agriculture Research, the US National Aeronautic and Space Administration, the US Food and Drug Administration, the University of Ghana, the Agricultural University at Bogor Indonesia, the Brazil Research Foundation, and the University of Delaware, among many others.

Dr. Lund's career is strongly anchored in the US land- -grant university system, with its educational philosophy of teaching, research, and extension/outreach. His research in food engineering (fouling of food contact surfaces, reaction kinetics in foods, microwave- -assisted processing) produced significant results and numerous publications in scientific journals. He has published over 200 articles in scientific journals and 25 book chapters, co- -authored two textbooks (including a major textbook on physical methods of food preservation), co- -edited five books, presented over 200 presentations and holds a US patent. He was named one of 26 innovators in *Food Engineering* magazine's 75th anniversary edition.

Dr. Xianonan Lu has made remarkable progress in establishing a multi- -disciplinary research laboratory in food safety engineering, where his lab integrates genomics in the fields of food science, analytical chemistry, molecular microbiology and engineering. He has the unique ability to work along the scientific continuum, using sound fundamental research towards practical applications. For example, the application of his research, working in conjunction with industry partners, has resulted in the development of a variety of different portable instruments, chips, strips, and assays for the detection of food chemical and microbiological contaminants/hazards. Based on an integrated multi- -disciplinary approach that incorporates food science, analytical chemistry, engineering and spectroscopic techniques, the innovative research being conducted by Dr. Lu's research group has enormous potential to establish rapid, accurate, sensitive and 'green' methodologies for the analysis of agricultural and food systems.

2017

David Julian McClements (USA)

Emmanuel Hatzakis (USA)

David McClements' special area of research is food biopolymers and colloids, particularly in the development of food-based structured delivery systems for bioactive components, such as vitamins, nutraceuticals and nutrients. His work aims to improve understanding of the physicochemical processes that occur within food

matrices and the gastrointestinal tract, “so as to design functional foods and beverages designed to improve human health and wellness through dietary interventions,” he explains.

In a letter nominating McClements, Eric Decker, head of the food science department at UMass Amherst, points out that the professor has “carried out pioneering research on the development and application of physical chemistry and nanotechnology principles to improve food quality, safety, and healthfulness throughout his career.” Further, he has established an “internationally recognized research program in the areas of food biopolymers, colloids, nanotechnology and functional foods” at the university.

Decker adds that McClements is an excellent teacher and mentor to his students, postdoctoral researchers and visiting scientists. “He combines traditional lecturing methods with innovative teaching approaches to develop team work, critical thinking and creativity skills. He has over 30 researchers currently working in his laboratory, and always has time to mentor them. In short, he is clearly strongly dedicated to training the new generation of scientists so that they have all the skills necessary to work in the modern food industry.”

Emmanuel Hatzakis’ research interests include applications of Nuclear Magnetic Resonance (NMR) Spectroscopy in Food Science and Nutrition. He obtained his BSc in chemistry in 2000, MSc in organic chemistry in 2004 and PhD in food analysis in 2007, from the University of Crete in Greece. From 2008 to 2010 he worked as a postdoctoral Research Associate in University of Arizona, and from 2010 to 2012 he was Research Associate Professor in University of North Carolina at Wilmington. Hatzakis then became the NMR Director in Pennsylvania State University, and in August 2016 he joined the department of Food Science and Technology at The Ohio State University as Assistant Professor. Hatzakis has published 29 articles in peer-reviewed journals, has authored one book chapter and together with colleagues, has developed one patent to date. His. He is developing novel analytical tools for food evaluation and he applies NMR spectroscopy for the discovery and characterization of compounds with high commercial and nutritional value. Creating opportunities from food industry waste products. Dr. Hatzakis has also been very successful in producing high value food products from food waste. A characteristic example is “AvoColor”, a natural food color additive in the yellow-red spectrum, extracted from Avocado seeds. “AvoColor” is the first product of a start-up company named Persea Naturals LLC, where Dr. Hatzakis is a co-founder, and as a member of the team he has a key role in the characterization and the production of this novel colorant. “AvoColor” provides the food industry with a product that it is unmatched by all existing products from a quality and cost perspective. Dr. Hatzakis has also developed novel NMR methodologies for the evaluation and quality assessment of edible oils and fish oil supplements. These methods offer a fast, reliable and cost-efficient analysis of olive oil, diacylglycerol oil and encapsulated fish oil in comparison to existing methodologies.

2019

Joseph Regenstein (USA)

Jielun Hu (China)

Joe Regenstein is a Professor Emeritus at the Department of Food Science at Cornell University and has been a leader whose extraordinary contributions have advanced the science of food and has brought honor and recognition to the profession of food science and technology through a distinguished career, demonstrating exemplary and sustained leadership, service, and communication to serve society. In addition to co-authoring three books, he has written (or co-written) over 200 papers and chapters.

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Faculty for his entire career, he has held appointments in the Department of Poultry Science and Department of Food Science (Agriculture and Life Sciences); Population Medicine and Diagnostic Sciences (Veterinary), and Jewish Studies Program (Arts and Sciences). He has also had or holds positions at Kansas State University, Texas A&M University, and the University of Wisconsin in the USA, Chang Mai University in Thailand, and Jiangnan University, Southwest University and Shanghai Ocean University in China. He is a Distinguished Foreign Expert at Jiangnan University. Years ago, he created the Cornell Kosher and Halal Foods Initiative which works with many different stakeholder groups (industry, government, religious leaders and consumers). Because of its uniqueness, it has served as a launching point for his leadership in many global activities, often requiring sophisticated negotiation to keep potentially hot issues below the radar. His role has required growing into an unofficial and unique ambassadorship in the world of science.

Dr. Jielun Hu's research interests focus on food science and nutrition, especially the gastrointestinal functions of natural polysaccharides and dietary fibre, which mainly come from food resources. She has established the methods both in vitro and in vivo (animal), systematically investigated the gastrointestinal functions of more than 5 kinds of food polysaccharides and dietary fibre, as well as their functional mechanisms. These could provide research methods and technical supports for other scientists. Dr. Hu has outstanding innovation work in the invention of human gastrointestinal digestion and fermentation simulators for investigating the digestion and fermentation of nutritional food substances. Based on these simulators, Dr. Hu has finished the investigation for the digestion and fermentation of more than 5 kinds of polysaccharides and dietary fibre. She has not only invented the dynamic simulator for whole human gastrointestinal tract, but also invented the individual simulator for mouth, stomach, small intestine, and large intestine. Each part of the human gastrointestinal tract can be simulated, and particularly, the mouth simulation fills the gap at home and abroad. Dr. Hu has obtained an outstanding award, the 2018 Young Elite Scientists Sponsorship Program by Chinese Association for Science and Technology, which is awarded each year (from 2015) to young experts under 32-year-old who have made outstanding contributions in science and technology. Particularly, she is the Only Female Scientist to get this honour in the area of food science and technology in China in 2018. She has also won 2 scientific awards from ministries of China, the first-class prize of Technology Progress Award by Chinese Institute of Food Science and Technology (CIFST, 2018), and the first-class prize of Jiangxi Scientific and Technological Progress in China (2018).

2021 Ruth Oniang'o (Kenya); Delia Rodriguez-Amaya (Brazil)

Dominic Agyei (New Zealand)

Dr Ruth Khasaya Oniang'o was awarded a PhD in Food Science and Nutrition by the University of Nairobi in 1983 and later became a Professor of Nutrition at Jomo Kenyatta University. Her research focused on food security, nutrition and pregnancy, childhood nutrition and agricultural processing. In 1992, she founded the Rural Outreach Program to provide small farmers with indigenous soil testing and other resources needed to be productive. Dr Oniang'o founded the *African Journal of Food, Agriculture, Nutrition and Development* in 2001 to highlight relevant academic research in the field. She is currently the editor-in-chief of the journal. She served in the Kenyan Parliament from 2003 to 2007 where she helped pass the Kenya Biosafety Bill and the Nutritionists and Dietetics Bills. In 2005, Dr Oniang'o established the Diana Elukhambi Health Centre in Kakamega. The list of young scientists she has mentored cannot be counted and has ensured that the future of food science is secure wherever she has touched their careers and scientific growth. She has served at the President of the International Academy of Food Science and Technology (2016-2018).

Dr Oniang'o has won numerous awards for her work in agriculture and food policy, including the national awards of Distinguished Service Medal and Silver Star for her community service. In 2006 she became a Fellow of three institutions, the International Union of Food Science and Technology, International Union of Nutritional Sciences, and the World Academy of Science and Art. In 2014, she was awarded the International Food and Agribusiness Management Association (IFAMA) Lifetime Award. She also won the Africa Food Prize in 2017 for her work with the Rural Outreach Program. Dr Oniang'o was cited as one of the Top 100 most influential Africans by New

African magazine in 2017. In 2018, Dr Oniang'o was awarded an honorary Doctor of Science degree from University of Aberdeen in recognition of her contributions to her field.

Dr Delia Rodriguez-Amaya, Brazil

Dr. Delia Rodriguez-Amaya holds a BS in Food Technology from Araneta University (Philippines), a MS in Food Science from the University of Hawaii and a PhD in Agricultural Chemistry from the University of California. She became a professor in the Faculty of Food Engineering at the University of Campinas (UNICAMP) in the state of São Paulo, Brazil, where she ultimately become Head of the Department of Food Science and General Coordinator of the graduate programs in Food Science, Food Engineering, Food Technology and Nutritional Sciences. She is the author of 276 scientific publications (books, chapters, research, and review papers) with more than 14,600 citations in the international scientific literature. Several of her articles have made the most cited lists in international journals. Given her international background, she presented her work in hundreds of lectures in scores of countries. She has taught short courses for professionals in Africa, Asia, and Latin America, and coordinated many projects supported by national and international development agencies. She has served as an expert to several FAO-WHO consultations and was a representative for CAPES (Ministry of Education's Commission for Higher Education) and member of advisory committees of the Ministry of Health on food safety, combatting Vitamin A deficiency, composition of Brazilian foods, conservation of biodiversity and food security. Dr Rodriguez-Amaya was a two-term member of the Advisory Committee on Food Science and Technology National Council for Scientific and Technological Development. She has been scientific advisor to the International Foundation for Science (Sweden). She is on the Editorial Boards for several prominent journals. She served as the President of the International Academy of Food Science and Technology (2014-2016) and is recognized for her outstanding organization of the 2012 IUFOST World Congress in Iguassu Falls, Brazil.

Dr Rodriguez-Amaya has received numerous awards, including: the Zeferino Vaz Recognition Award in 1994, 1997 and 2003), the André Tosello Award (2005), the East-West Center Distinguished Alumni Award (2010), the PAFT (Philippine Association of Food Technologists) 50th Anniversary Recognition Award (2010) and in 2012, Presidential Award Philippine Heritage. She was inducted as a Fellow of the International Academy of Food Science and Technology. In 2015, she was cited as among the 100 Most Influential Filipino Women in the World (2015) and in 2020 as one of the 100,000 Most Influential Scientists in the World.

The Young Researcher Award for 2021 was awarded to **Dr. Dominic Agyei** of the University of Otago in Dunedin, New Zealand. Dr. Agyei has shown himself to be a promising and talented researcher as evidenced by his extensive publications, including 55 journal articles and 24 book chapters. His articles have achieved an excellent h-index of 21 and an i10 index of 42 with his research having been cited 1841 times. Highlights from his research career include manuscripts that have provided an engineering perspective on strategies to overcome bioprocess challenges in the industry-scale production of bioactive peptides. His work has helped to elucidate the structural characteristics, catalytic properties, and applications of immobilized food enzymes. The research has the potential to help researchers and the food industry's use of enzymes for the development of bioactive compounds and functional food ingredients. He is fast becoming a leader in this exciting field of research.

Background: Dr. Dominic Agyei holds a BSc degree in Food Science and Technology from KNUST, Ghana (2008); and a PhD in Chemical (Bioprocess) Engineering from Monash University, Australia (2014). After his PhD, Dominic received an Alfred Deakin Postdoctoral Research Fellow at Deakin University, Australia, to study the use of enzymes in the development of peptide-lipid bio-conjugates for food and pharmaceutical applications (2015-2017). Dominic is currently a Senior Lecturer at the University of Otago Food Science Department. His research aims at using food enzymes and bioprocess engineering principles to transform biological materials into high-value bioactive products that positively influence human health.