Challenges and Opportunities for Precision and Personalized Nutrition
Speaker, Moderator, and Planning Committee Biographical Sketches

Mariëtte Abrahams, Ph.D., M.B.A., R.D.
Qina
Invited Speaker
Mariëtte Abrahams is Founder and CEO of Qina, a B2B platform and consultancy that provides access to a curated database of personalized nutrition solutions and a network of domain experts. Dr. Abrahams has been working in the clinical and medical nutrition industry for over 20 years and leverages her combined expertise in nutrition, business and research to help businesses navigate the personalized nutrition industry, provide market insights and innovate. She received a M.B.A. from The Open University and Ph.D. in personalized nutrition from the University of Bradford.

Andres J. Acosta, M.D., Ph.D.
Mayo Clinic
Invited Speaker
Andres Acosta is Consultant in the Division of Gastroenterology and Hepatology, Department of Internal Medicine at Mayo Clinic in Rochester, Minnesota. Dr. Acosta joined the staff of Mayo Clinic in 2016 and holds the academic rank of Assistant Professor of Medicine, Mayo Clinic College of Medicine and Science. His main career goal is to understand and cure obesity. His research focuses on gastrointestinal physiology to understand the complexity of food intake regulation and obesity. His laboratory utilizes a combination of genetics, physiology, pharmacology, proteomics, metabolomics, and gastrointestinal and brain imaging to understand food intake regulation and to modulate them for the treatment of obesity. He is principal investigator and co-investigator on research funded by the National Institute of Diabetes and Digestive and Kidney Diseases. In addition to his clinical and research activities, Dr. Acosta is active in education and provides mentorship to medical students and clinical fellows, among others. He is also an active member of professional organizations, such as the American College of Gastroenterology, American Gastroenterological Association. American Society for Gastrointestinal Endoscopy, and The Obesity Society. He earned his B.S. in health science and his M.D. at Universidad San Francisco de Quito, Ecuador, graduating with magna cum laude honors for both degrees. He earned his Ph.D. in physiology and pharmacology at the University of Florida, College of Medicine in Gainesville, and completed an internship and residency in internal medicine at University of Florida Shands/UF Hospital.

Joshua (Josh) Anthony, Ph.D., M.B.A., M.S.
Nlumn, LLC.
Invited Speaker
Josh Anthony is Founder and CEO at Nlumn, a consulting company that works with food, nutrition, and health-technology companies to help them compete in the personalized nutrition and health marketplace. Nlumn's mission is to make personalized nutrition accessible to help every individual make better choices and live a healthier life. In a career that spans test to table, Dr. Anthony has proven his capabilities as a successful scientist, innovator and entrepreneur. Driven by the challenge of translating science to help people live healthier lives, he has worked collaboratively to help launch more than 150 science-based nutrition products. Before starting Nlumn, he was the founding Chief Science Officer at the personalized nutrition company, Habit. He was also Vice President, Global R&D, Nutrition and Health at the Campbell Soup Company. Prior to Habit and Campbell, Dr. Anthony held progressive technical and management roles at Mead Johnson Nutrition and Unilever. He also served as an adjunct professor of physiology at the Indiana University School of Medicine. Dr. Anthony earned a B.S. in biological sciences from Carnegie Mellon University, an M.S. in nutritional sciences from the University of Illinois, an M.B.A. from Vanderbilt University, and a Ph.D. in cell and molecular physiology from the Pennsylvania State University College of Medicine.

Guruduth (Guru) Banavar, Ph.D., M.B.A., M.S.
Viome
Invited Speaker
Guru Banavar is Chief Technology Officer and is leading the development of AI systems at Viome, a company that offers unprecedented visibility into the biological ecosystem inside each of us, and delivers personalized food and supplement recommendations to deter chronic disease. Until April 2017, he was a global Vice President at IBM leading Watson AI research, and a member of CEO Ginni Rometty's top executive team. Dr. Banavar has built a range of advanced technologies and delivered solutions in multiple industries throughout his career. He is a recognized thought leader who delivered the 2017 Turing Lecture, and has spoken on the world's biggest stages including the Nobel Prize (twice), the Aspen Ideas Festival, and the Milken Conference. His awards include the Leadership in Technology Management Award from PICMET in 2017, and a National Innovation Award from the President of India in 2009. He has served on New York Governor Cuomo's commission for NY state resiliency, and was an elected member of the IBM Academy of Technology. He has published extensively, and holds more than 30 U.S. patents. His work has been featured in major international media including the *New York Times*, the *Economist*, the *Wall Street Journal*, *BBC*, and *NPR*. Dr. Banavar holds a Ph.D. in computer science from the University of Utah.

Sarah Berry, Ph.D., M.Sc.
King's College London
Invited Speaker
Sarah Berry is Associate Professor at King's College London and serves on the Scientific Advisory Board for ZOE. Her research interests relate to the influence of dietary components on markers of cardiovascular disease risk, with a particular focus on precision nutrition, postprandial metabolism, and food and fat structure. Since commencing her research career at King's in 2000, she has been the academic leader for more than 30 human nutrition studies in cardio-metabolic health. Ongoing research involves human and mechanistic studies to elucidate how markers of cardiometabolic health can be modulated following acute and chronic intakes of different fatty acids, as well as studies to investigate the influence of the food matrix on macronutrient and micronutrient release from different plant-based foods and subsequent effects on postprandial measures. Dr. Berry is also the lead nutritional scientist on the PREDICT programme, assessing the genetic, metabolic, metagenomic, and meal-dependent effects on metabolic responses to food in >6,000 individuals in the U.K. and U.S. This research is at the forefront of developments in personalized nutrition and is forging a new way forward in the design and implementation of large-scale remote nutrition research studies integrating novel technologies, citizen science and AI. She is also the academic lead on the Covid Symptom Study Diet and Lifestyle Questionnaire in 1.1 million participants, assessing diet and lifestyle behaviors pre- and during- the Covid-19 pandemic and relationship with Covid-19 risk and obesity. She holds a M.Sc. and Ph.D. in nutrition from King's College London.

Patsy Brannon, Ph.D., R.D.
Cornell University
Invited Speaker
Patsy M. Brannon is currently Visiting Professor, and was Professor until her retirement in June 2018, in the Division of Nutritional Sciences at Cornell University, where she has also served as Dean of the College of Human Ecology. Prior to moving to Cornell University, Dr. Brannon was Chair of the Department of Nutrition and Food Science at the University of Maryland. She has also served as Visiting Professor at the Office of Dietary Supplements at the National Institutes of Health. Her research focus includes nutritional and metabolic regulation of gene expression, especially as relating to human development, the placenta, and exocrine pancreas. She was a member of the National Academies of Sciences, Engineering, and Medicine's Committees on Dietary Reference Intakes for Vitamin D and Calcium and on Dietary Reference Intakes for Sodium and Potassium, as well as the National Academies' Food and Nutrition Board. Dr. Brannon was a member of a number of professional and scientific associations and has served on the Executive Board of the American Society for Nutrition (ASN). She has received numerous awards, including the ASN Fellow, Pew Faculty Scholar in Nutrition award as well as the Centennial Laureate award from Florida State University. Dr. Brannon received her Ph.D. in nutritional biochemistry from Cornell University.

Robert (Rob) M. Califf, M.D., M.Acc
Verily Life Science
Invited Speaker
Rob Califf is Head of Clinical Policy and Strategy for Verily and Google Health. Prior to this, he was the vice chancellor for health data science for the Duke University School of Medicine; director of Duke Forge, Duke's center for health data science; and the Donald F. Fortin, M.D., Professor of Cardiology. He served as Deputy Commissioner for Medical Products and Tobacco in the U.S. Food and Drug Administration from 2015-2016, and as Commissioner of Food and Drugs from 2016-2017. Dr. Califf was the founding director of the Duke Clinical Research Institute and is one of the most frequently cited authors in biomedical science. A nationally and internationally recognized leader in cardiovascular medicine, health outcomes research, healthcare quality, and clinical research, Dr. Califf is a graduate of Duke University School of Medicine.

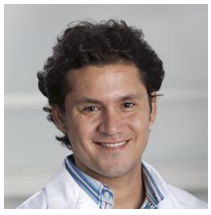
Susan Carnell, Ph.D.
Johns Hopkins University
Invited Speaker
Susan Carnell is Associate Professor in the Division of Child and Adolescent Psychiatry, Department of Psychiatry and Behavioral Sciences at Johns Hopkins University School of Medicine, where she heads the Appetite Lab. A central question motivating her research is, "Why do some people develop obesity while others don't?" Her research program investigates the model that individuals differ in appetite-related biobehavioral traits (e.g., food cue responsiveness, satiety sensitivity) that manifest early in life, show genetic influence, and interact with environmental factors to predict eating behaviors and weight trajectories. To probe this model she employs a range of methods including behavioral tests, questionnaires, genotyping, hormonal assays, and neuroimaging techniques (fMRI, MRI, PET). Ongoing research projects include investigations of appetite and body weight in infants, children, adolescents, and adults, including studies of bariatric surgery and eating disorders. Dr. Carnell received her B.A. in experimental psychology from the University of Oxford and her Ph.D. in health psychology at University College London, and completed post-doctoral training at Columbia University.

Cindy D. Davis, Ph.D.
U.S. Department of Agriculture
Planning Committee Member, Moderator, and Food Forum Member
Cindy Davis serves as National Program Leader for the program in Human Nutrition conducted by the U.S. Department of Agricultural (USDA) Agricultural Research Service. In this role, she helps direct the scientific program for six Human Nutrition Research Centers. Prior to joining USDA, she was the Director of Grants and Extramural Activities in the Office of Dietary Supplements (ODS) where she actively engaged and encouraged partnerships with other National Institutes of Health (NIH) Institutes and Centers to develop a portfolio that advances both nutritional and botanical dietary supplement research for optimizing public health. Dr. Davis is also actively involved in a number of government working groups focused on the microbiome including being a co-founder and co-chair of the Joint Agency Microbiome (NIH, Food and Drug Administration, National Institute of Standards and Technology, and USDA) working group. Before coming to ODS, she was a Program Director in the Nutritional Sciences Research Group at the National Cancer Institute. She completed her postdoctoral training at the Laboratory of Experimental Carcinogenesis at the National Cancer Institute. She then joined the Grand Forks Human Nutrition Research Center, USDA, as a research nutritionist. In 2000, she received a Presidential Early Career Award for Scientists and Engineers and was named the USDA Early Career Scientist. She has published more than 135 peer-reviewed journal articles and eleven invited book chapters. She is a supplement editor for the *Journal of Nutrition*, assistant editor for *Nutrition Reviews* and a member of the editorial board for *Advances in Nutrition*. Dr. Davis received her B.S. degree in nutritional sciences with honors from Cornell University in Ithaca, NY, and her Ph.D. degree in nutrition with a minor in human cancer biology from the University of Wisconsin-Madison.

Eric A. Decker, Ph.D., M.S.
University of Massachusetts Amherst
Planning Committee Chair and Food Forum Member
Eric Decker is Professor and Head of the Department of Food Science at the University of Massachusetts Amherst. He is also the Director of the UMass Food Science Industry Strategic Research Alliance since 2008. Dr. Decker is actively conducting research to characterize mechanisms of lipid oxidation, antioxidant protection of foods and the health implications of bioactive lipids. He has over 430 publications and he has been listed as one of the Most Highly Cited Scientists in Agriculture since 2005. Dr. Decker has served on numerous committees for institutions such as the Food and Drug Administration, National Academies of Sciences, Engineering, and Medicine, Institute of Food Technologists, U.S. Department of Agriculture, and the American Heart Association. He has received recognition for his research and service from the American Oil Chemist Society, Agriculture and Food Chemistry Division of the American Chemical Society, Institute of Food Technologists, University of Massachusetts and the University of Kentucky. Dr. Decker has also been elected to serve as an officer for the American Meat Science Association, Institute of Food Technologists, and most recently, as the President of the American Oil Chemist Society. He holds an M.S. in food science and nutrition from Washington State University, and Ph.D. in food science and nutrition from the University of Massachusetts Amherst.

Kayla de la Haye, Ph.D.
University of Southern California
Invited Speaker
Kayla de la Haye is Associate Professor of Population and Public Health Sciences at the University of Southern California, in Los Angeles. She works to address key public health issues by integrating behavioral science, network science, and systems science. Her work focuses on family and community social networks, and the environments in which people live, to promote healthy eating and food security, and to prevent diet-related disease and health disparities. Her research also explores the role of social networks in how families, teams, and coalitions solve complex problems and address health risks. Dr. de la Haye previously worked as an Associate Behavioral/Social Scientist at the RAND Corporation. She serves on the Executive Committee of the International Network of Social Network Analysis (INSNA), and in 2018, she received the INSNA Freeman Award for significant contributions to the study of social structure. She holds a Ph.D. in psychology from the University of Adelaide, Australia.

Sean Duffy
Omada Health
Invited Speaker
Sean Duffy is Co-Founder and CEO of Omada Health, a digital care program that empowers people to achieve their health goals through sustainable lifestyle change. In 2017, Omada was recognized as one of Fast Company's Most Innovative Companies and in 2016, the company was named a Technology Pioneer by the World Economic Forum. Prior to Omada, he worked at both Google and IDEO. Recognized as a thought leader on the future of healthcare, Mr. Duffy has written or spoken extensively in the *New England Journal of Medicine*, *Wall Street Journal*, and at the World Economic Forum. A former M.D./M.B.A. candidate at Harvard, he holds a B.S. in neuroscience from Columbia University.



Ahmed El-Sohemy, Ph.D.
University of Toronto
Invited Speaker
Ahmed El-Sohemy is Professor and Canada Research Chair in Nutrigenomics at the University of Toronto. He joined the faculty at the University of Toronto in 2000 to establish a research program in nutrigenomics. The goal of his research is to identify biomarkers of dietary exposure and elucidate the genetic basis for variability in nutrient response and dietary preferences. He collaborates with researchers across Canada as well as the U.S., Costa Rica, Denmark, Italy, Switzerland, South Korea, and Singapore. Dr. El-Sohemy has published over 70 peer-reviewed articles and has given almost 100 invited talks around the world. He is on the editorial board of eight journals, and served as an expert reviewer for more than 30 different scientific and medical journals and 12 granting agencies. He earned his Ph.D. in nutritional sciences from the University of Toronto and completed a postdoctoral fellowship at the Harvard School of Public Health.

Martin Hahn, J.D.
Hogan Lovells
Invited Speaker and Food Forum Member
Martin Hahn is Partner at Hogan Lovells. He uses his background in food technology and his comprehensive understanding of the laws governing the food industry to help clients navigate through the countless regulatory and business issues impacting the industry from farm to table. He recognizes the demands clients face and finds innovative and creative solutions, particularly when responding to observations raised by regulators during inspections. Whether the issue involves obtaining the authorization of a new food or dietary ingredient, complying with manufacturing requirements, labeling or advertising, product recalls, or enforcement, Mr. Hahn serves as an effective adviser and advocate. He has handled almost every issue impacting the food industry. He has a comprehensive understanding of the laws affecting the labeling and advertising of foods, dietary supplements, infant formulas, medical foods, foods for special dietary use, and hemp extracts when positioned as a food or dietary supplements. He helps anticipate new trends and develops the data needed to distinguish a client's products from others on the market. Mr. Hahn uses his understanding of science and technology in the food industry to provide assistance in obtaining regulatory authorizations to market new food ingredients, food packaging materials, and dietary ingredients. He holds a J.D. from Northwestern University.

Constance Hilliard, Ph.D., M.A.
University of North Texas
Invited Speaker
Constance Hilliard is Professor of Evolutionary History at the University of North Texas. In recent years, she has pioneered the field of African Evolutionary History. This emerging discipline resides at the intersection of environmental history and genomics, and offers previously overlooked clues as to the etiology of certain health disparities for which Americans of African-descent have unusually high susceptibilities. Her Ancestral Gene Variants (AGV) Model identifies certain beneficial ancestral gene variants in the unique ecology of the West Africa interior, which may become maladaptive in the U.S. dietary culture, particularly as relates to calcium and sodium intake. Dr. Hilliard received a B.A., M.A., and Ph.D. in history from Harvard University.

Michael Howell, M.D., M.P.H.
Google Health
Invited Speaker
Michael Howell is Chief Clinical Officer and Deputy Chief Health Officer at Google, where he focuses on how technology can help improve health and healthcare. He was previously Chief Quality Officer at the University of Chicago Medicine, where he was the senior physician responsible for overseeing the quality of care at the health system. Before that, he served at Harvard Medical School and the Beth Israel Deaconess Medical Center in a variety of roles focused on quality, patient safety, and healthcare delivery science. An active investigator, Michael has published more than 100 research articles, editorials, and book chapters. These studies have held an interest for the public and have been covered by *CNN*, the *New York Times*, *Wall Street Journal*, *Forbes*, and *Consumer Reports*, among others. A nationally recognized expert on patient safety and quality, Dr. Howell has also served on national advisory and guideline panels for the Centers for Disease Control and Prevention, Medicare, the National Academy of Medicine, and national professional associations. His book, *Understanding Healthcare Delivery Science*, focuses on the intersection of real-world improvement and research-quality methods in the complex environment of healthcare. He holds an M.P.H. and M.D. from Harvard University.

Abigail (Abby) Johnson, Ph.D., R.D.
University of Minnesota
Invited Speaker
Abby Johnson is Assistant Professor and Registered Dietitian in the Division of Epidemiology and Community Health in the School of Public Health at the University of Minnesota. She is also Associate Director of the Nutrition Coordinating Center, which distributes and supports the Nutrition Data System for Research (NDSR). Dr. Johnson has diverse experiences in nutrition research, ranging from molecular biology and clinical nutrition to bioinformatics and public health. Her present research explores the relationships between diet and the human gut microbiome in health and disease and uses novel computational methods to integrate dietary data with other multiomics data. She has demonstrated that daily changes in dietary intake and overall dietary patterns are reflected in shifts in microbial composition in humans. Dr. Johnson completed her undergraduate B.S. degrees in Nutrition and Biology and received a Ph.D. in Nutrition from the University of Minnesota. Her training has included industry post-doctoral work with Nestle Health Science, and academic post-doctoral training in bioinformatics and microbiome under the mentorship of Dr. Dan Knights at the University of Minnesota.

Jim Kaput, Ph.D.
Vydiant
Invited Speaker
Jim Kaput is Co-Founder and Chief Scientific Officer of Vydiant, which is developing a comprehensive knowledge base of factors affecting health and disease with digital health tools to deliver personalized recommendations to individuals. He has been developing strategies and methods to target nutrition for improving personal and public health for his entire career. He and his colleagues published on the need for international collaborations and the challenges facing nutritional research in providing science-based evidence for nutrient security and sustainability as climate changes and the world population increases to 9 billion in 2050. Dr. Kaput was a staff and biochemistry faculty member at the University of Illinois College of Medicine, Director of the Northwestern University Biotechnology Laboratory, and coordinator of Science and Administrative Activities for the National Center for Minority Health and Health Disparities Center of Excellence in Nutritional Genomics at the University of California Davis. From 2007 to 2011, Dr. Kaput was Director of the Division of Personalized Nutrition and Medicine at the U.S. Food and Drug Administration's National Center for Toxicological Research (Jefferson, AR) where his team collaborated with the U.S. Department of Agriculture and the Boys, Girls, Adults Community Development Center in Marvell, Arkansas. He was a member of the Executive Committee of NuGO (Nutrigenomics Organization) for 8 years and for 5 years was a co-Editor of *Genes&Nutrition*, a leading journal in the field of targeted nutrition. His most recent past position was Senior Expert at the Nestle Institute of Health Sciences from 2011 to 2017. Dr. Kaput received his Ph.D. from Colorado State University in biochemistry and molecular biology and spent 5 years as a postdoctoral fellow and assistant professor at the Rockefeller University in the laboratory of Günter Blobel, the 1999 Nobel Laureate in Physiology and Medicine.

Samantha Kleinberg, Ph.D.
Stevens Institute of Technology
Invited Speaker
Samantha Kleinberg is Associate Professor of Computer Science at Stevens Institute of Technology. She is the recipient of the National Science Foundation's CAREER and JSMF Complex Systems Scholar Awards and is a 2016 Kavli Fellow of the National Academy of Sciences. She is the author of *Causality, Probability, and Time* (Cambridge University Press, 2012) and *Why: A Guide to Finding and Using Causes* (O'Reilly Media, 2015), and editor of *Time and Causality Across the Sciences* (Cambridge University Press, 2019). Dr. Kleinberg received her Ph.D. in computer science from New York University and was a Computing Innovation Fellow at Columbia University in the Department of Biomedical Informatics.

Katie Koecher, Ph.D.
Bell Institute of Health and Nutrition, General Mills
Planning Committee Member
Katie Koecher is Associate Expert Nutrition Scientist at General Mills within the Bell Institute of Health and Nutrition. In her role she leads the nutrition research strategic plan and pipeline development, while also conducting research on carbohydrates and health, weight management, diabetes, and more recently, personalized nutrition. She has held various positions within food science and nutrition that have spanned from product developer at Nestle Health Science to a contract microbiologist for 3M. Currently, she serves as committee co-chair for the Institute for the Advancement of Food and Nutrition Sciences (previously ILSI-North America) carbohydrate committee. Dr. Koecher completed her Ph.D. in food science and nutrition at the University of Minnesota.

Bruce Y. Lee, M.D., M.B.A.
City University of New York Graduate School of Public Health & Health Policy
Planning Committee Member and Moderator
Bruce Y. Lee is Professor of Health Policy and Management at the City University of New York Graduate School of Public Health & Health Policy, where he is the Executive Director of Public Health Computational and Operations Research (PHICOR) and Executive Director of Center for Advanced Technology in Communications in Health (CATCH). He is a systems modeler, computational and digital health expert, writer, and health journalist. He has over two decades' experience in industry and academia developing mathematical and computational models to assist a wide range of decision makers in health and public health. Dr. Lee has written extensively for the general media. He is a Senior Contributor for *Forbes*, covering a wide range of health-related topics. His writing has also appeared in a number of other media outlets including *The New York Times*, *Time*, *The Guardian*, *HuffPost*, and MIT *Technology Review*. He holds an M.B.A. from Stanford Graduate School of Business and an M.D. from Harvard Medical School.

Peter Lurie, M.D., M.P.H.
Center for Science in the Public Interest
Invited Speaker and Food Forum Member
Peter Lurie is President of the Center for Science in the Public Interest (CSPI). Previously, Dr. Lurie was the Associate Commissioner for Public Health Strategy and Analysis at the Food and Drug Administration, where he worked on antimicrobial resistance, transparency, caffeinated beverages, arsenic in rice, fish consumption by pregnant and nursing women, expanded access to investigational drugs, and prescription drug abuse. Prior to that, he was Deputy Director of Public Citizen's Health Research Group, where he addressed drug and device issues, coauthored the organization's *Worst Pills, Best Pills* consumer guide to medications, and led efforts to reduce worker exposure to hexavalent chromium and beryllium. Earlier, as a faculty member at the University of California, San Francisco and the University of Michigan, he studied needle exchange programs, ethical aspects of mother-to-infant HIV transmission studies, and other HIV policy issues domestically and abroad. Dr. Lurie earned his M.D. from the Albert Einstein College of Medicine.

John Mathers, Ph.D.
Newcastle University
Invited Speaker
John Mathers is Professor of Human Nutrition, Director of the Human Nutrition Research Centre and Director of the Centre for Healthier Lives in Newcastle University, U.K. His major research interests are in understanding how eating patterns influence risks of age-related diseases including heart disease, diabetes, dementia, and bowel cancer. He uses genomic and epigenomics approaches to understand the mechanisms though which nutrition influences cell function and, ultimately, health. Dr. Mathers led the EU-funded Food4Me intervention study which used a web-based approach to deliver a personalized nutrition intervention across seven European countries. He has a long-term interest in developing and implementing large scale human intervention studies to improve healthy ageing (The LIVEWELL Programme), and to reduce the risk common age-related diseases including bowel cancer (The CAPP Studies) and dementia (MedEx-UK). Among his external roles, Dr. Mathers is a past President of the Nutrition Society and has served on numerous grants panels and other committees for the Medical Research Council, Biotechnology and Biological Sciences Research Council, Economic and Social Research Council, World Cancer Research Fund and other research funders. He is a Trustee of the British Nutrition Foundation and of the Rank Prize Funds. He is Editor-in-Chief of the *British Journal of Nutrition*. He was an undergraduate in Newcastle and undertook his Ph.D. and post-doctoral research in the University of Cambridge followed by a research fellow post in Edinburgh University before being appointed in Newcastle.

Josiemer Mattei, Ph.D., M.S., M.P.H.
Harvard T.H. Chan School of Public Health
Planning Committee Member
Josiemer Mattei is the Donald and Sue Pritzker Associate Professor of Nutrition at the Department of Nutrition at Harvard T.H. Chan School of Public Health. She investigates genetic, dietary, and psychosocial determinants of cardiometabolic diseases in racial/ethnic groups and underserved populations, as a framework to explain health disparities, through observational studies and culturally-tailored community interventions. She recently served as a panelist for the National Institutes of Health's "Precision Nutrition: Research Gaps and Opportunities Workshop," where she presented on Social Determinants of Health and Inequities in Precision Nutrition. Dr. Mattei is a Robert Wood Johnson Foundation Culture of Health Leader and received the Mark Bieber Award for Outstanding Nutrition-related Research by the American Heart Association. She obtained an M.P.H. in epidemiology and biostatistics and a Ph.D. in nutritional biochemistry and from Tufts University.

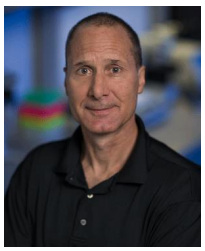
Robin McKinnon, Ph.D., M.P.A.
U.S. Food and Drug Administration
Planning Committee Member and Moderator
Robin McKinnon is Senior Advisor for Nutrition Policy at the Food and Drug Administration (FDA) Center for Food Safety and Applied Nutrition (CFSAN). Dr. McKinnon works to advance nutrition-related activities across CFSAN, including FDA's Nutrition Innovation Strategy. Prior to joining FDA, she was a Health Policy Specialist at the National Cancer Institute (NCI), National Institutes of Health. At NCI, Dr. McKinnon led policy-relevant research initiatives on diet, obesity and physical activity. She previously served on the planning committee for the 2009 National Academies workshop "The Public Health Effects of Food Deserts." Dr. McKinnon earned a Master's in Public Administration (M.P.A.) from Harvard University in 2002, and Ph.D. in public policy and administration from the George Washington University in 2009.

Christian Metallo, Ph.D., M.S.
Salk Institute for Biological Studies and University of California San Diego
Invited Speaker
Christian Metallo is Professor at the Salk Institute for Biological Studies and Adjunct Professor of Bioengineering at the University of California San Diego. He studies how diet, genetics, and other factors alter metabolism to drive diseases such as cancer and neuropathy. Dr. Metallo's work focuses on mapping the biochemical networks sustaining biosynthesis and bioenergetics to uncover the mechanistic basis of disease and identify new therapeutic strategies. Using stable isotope tracers and advanced mass spectroscopy techniques, his lab quantifies how metabolic pathways are altered in cells, animal models, and patients. Taking this approach, Dr. Metallo has made key discoveries about the metabolic pathways that drive cancer progression and macular disease—pathways which can be influenced through dietary manipulations or targeted therapies. He was recently elected a fellow of the American Institute for Medical and Biological Engineering. He received his B.S. in chemical engineering from the University of Pennsylvania and his M.S. and Ph.D. degrees in chemical and biological engineering from the University of Wisconsin-Madison. Dr. Metallo was a postdoctoral fellow at the Massachusetts Institute of Technology.

Denise M. Ney, Ph.D., R.D.N.
University of Wisconsin-Madison
Invited Speaker
Denise Ney is Professor in the Department of Nutritional Sciences at the University of Wisconsin-Madison, where she served as Department Chair and Director of the Interdepartmental Graduate Program in Nutritional Sciences. She has conducted research on how nutrition impacts gastrointestinal physiology and rare genetic diseases for over 25 years, focusing on the neuroendocrine regulation of intestinal adaptation and phenylketonuria (PKU), an inherited metabolic disorder that requires lifelong dietary restriction of the amino acid phenylalanine (Phe) to prevent cognitive impairment. As a classic example of precision nutrition matching the PKU genotype to diet, Dr. Ney invented a way to use glycomacropeptide (GMP), a whey protein produced during cheesemaking, to formulate low-Phe medical foods resulting in improved health for individuals with PKU worldwide. She is recognized as a "Rare Disease Hero" for her research to develop GMP medical foods for PKU by the FDA Office of Orphan Products Development and is the recipient of the Spitze Land Grant Faculty Award from the College of Agriculture and Life Sciences and Mary Schwartz Rose and Fellow Awards from the American Society for Nutrition. Dr. Ney has mentored 13 Ph.D. students within her research program, many of whom hold faculty positions, and directed the Didactic Program in Dietetics leading to over 1,000 students achieving careers as Registered Dietitian Nutritionists. She has published 135 research articles, 10 book chapters and is an inventor on two patents. Dr. Ney received her Ph.D. in nutrition science at the University of California, Davis.

Michal Rein, M.Sc., R.D.
Weizmann Institute of Science and University of Haifa
Invited Speaker
Michal Rein is currently pursuing a Ph.D. under joint supervision of Eran Segal from the Weizmann Institute of Science and Shira Zelber-Sagi from the University of Haifa. She is a registered dietitian, specializing in dietary interventions and modifications. As part of her research, she leads studies observing the effect of personally tailored diets by predictions of glycemic responses aimed to improve glycemic status and other metabolic parameters in various populations (such as healthy individuals, subjects with glucose intolerance, and breast cancer survivors). Additionally, she is a part of an ongoing research integrating the data of dietary intake, personal characteristics, microbiome features and omics data on the influences of the individual reaction to glucose and other health indicators.

Christina A. Roberto, Ph.D.
University of Pennsylvania
Invited Speaker
Christina Roberto is the Mitchell J. Blutt and Margo Krody Blutt Presidential Associate Professor of Health Policy at the Perelman School of Medicine at the University of Pennsylvania. She is also the Director of the Psychology of Eating and Consumer Health lab (PEACH lab) and Associate Director of the Center for Health Incentives and Behavioral Economics at Penn. The mission of the PEACH lab is to identify and evaluate policies and interventions that promote healthy eating habits and prevent nutrition-related chronic diseases. The lab strives to help create a just and equitable food system where those with the fewest resources and opportunities have the same chance to live a long, healthy life as those with the most. The PEACH lab works closely with policymakers and influencers to ask important, creative, and timely research questions that provide policymakers and institutions with science-based guidance. Dr. Roberto has an undergraduate degree in Psychology from Princeton University where she graduated magna cum laude. She earned a joint-Ph.D. in clinical psychology and chronic disease epidemiology at Yale University. She completed her clinical internship at the Yale School of Medicine and was a Robert Wood Johnson Foundation Health and Society Scholar at the Harvard T.H. Chan School of Public Health.

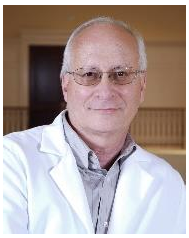


Nicholas J. Schork, Ph.D., M.A.
The Translational Genomics Research Institute
Planning Committee Member
Nicholas Schork is Deputy Director and Distinguished Professor of Quantitative Medicine at The Translational Genomics Research Institute (TGen) in Phoenix, AZ. Dr. Schork is also Adjunct Professor of Population Sciences as well as Molecular and Cellular Biology at City of Hope, Adjunct Professor of Psychiatry and Biostatistics at the University of California, San Diego and Adjunct Professor of Integrative Structural and Computational Biology at Scripps Research. Prior to his current positions, Dr. Schork was Professor and Director of Human Biology at the J. Craig Venter Institute and, previously, Professor, Molecular and Experimental Medicine, at The Scripps Research Institute and Director of Bioinformatics and Biostatistics for the Scripps Translational Science Institute. Between 1999 and 2000 Dr. Schork took a leave of absence from Case Western Reserve University to conduct research as Vice President of Statistical Genomics at the French Biotechnology company, Genset, where he helped guide efforts to construct the first high-density map of genetic variation in the human genome. He has published over 550 articles in many areas of biomedical and translation science, as well as areas of integrated nutrigenomics and the design of personalized nutritional trials. He was a member of the National Academies of Sciences, Engineering, and Medicine's Food and Nutrition Board from 2003-2007, and has a long history of collaborative and consortium-related research in which he has contributed analysis methodology and applied data analysis expertise. Dr. Schork has 12 patents associated with genetic analysis methodology, been involved with more than 10 start-up companies, and has mentored over 75 students and post-doctoral fellows. He earned his Ph.D. in genetic epidemiology from the University of Michigan.

Michael Snyder, Ph.D.
Stanford University
Invited Speaker
Michael Snyder is the Stanford Ascherman Professor and Chair of Genetics and the Director of the Center of Genomics and Personalized Medicine at Stanford University. He is a leader in the field of functional genomics and multiomics, and one of the major participants of the ENCODE project. His laboratory study was the first to perform a large-scale functional genomics project in any organism, and has developed many technologies in genomics and proteomics. The technologies his lab developed have been used for characterizing genomes, proteomes and regulatory networks. Seminal findings from the Snyder laboratory include the discovery that much more of the human genome is transcribed and contains regulatory information than was previously appreciated (e.g. lncRNAs and TF binding sites), and a high diversity of transcription factor binding occurs both between and within species. Dr. Snyder launched the field of personalized medicine by combining different state-of–the-art "omics" technologies to perform the first longitudinal detailed integrative personal omics profile (iPOP) of a person, and his laboratory pioneered the use of wearables technologies (smart watches and continuous glucose monitoring) for precision health. He is a cofounder of many biotechnology companies, including Personalis, SensOmics, Qbio, January, Protos, Oralome, Mirvie and Filtricine. Dr. Snyder received his Ph.D. training at the California Institute of Technology and carried out postdoctoral training at Stanford University.

Patrick J. Stover, Ph.D.
Texas A&M AgriLife
Planning Committee Member and Food Forum Member
Patrick Stover is Vice Chancellor and Dean for Agriculture and Life Sciences at Texas A&M AgriLife, and Director of Texas A&M AgriLife Research. As vice chancellor, Dr. Stover oversees coordination and collaboration of the agriculture, academic and research programs across The Texas A&M University System, as well as four state agencies: Texas A&M AgriLife Research, Texas A&M AgriLife Extension Service, Texas A&M Veterinary Medical Diagnostic Laboratory and Texas A&M Forest Service. Dr. Stover is also director of AgriLife Research, where he oversees 13 research centers across the state with a research portfolio of more than 500 projects and $214.2M in annual research funding. As dean of the College of Agriculture and Life Sciences, Dr. Stover leads more than 7,000 students and 330 faculty members in 15 academic departments. He previously directed the Division of Nutritional Sciences at Cornell University. An international leader in biochemistry and nutrition, Dr. Stover focuses his research on the biochemical, genetic and epigenetic mechanisms that underlie the relationships between folic acid and human pathologies such as developmental anomalies, neuropathies and cancer. He is an elected member of the National Academy of Sciences and a fellow of the American Association for the Advancement of Science. He is also former president of the American Society for Nutrition and has served two terms on the National Academies of Sciences, Engineering, and Medicine's Food and Nutrition Board. Dr. Stover received his Ph.D. in biochemistry and molecular biophysics from the Medical College of Virginia.

Diana M. Thomas, Ph.D.
United States Military Academy at West Point
Invited Speaker
Diana Thomas is Professor of Mathematical Sciences at the United States Military Academy at West Point. She has been an active research mathematician for over 25 years with a focus on nutrition and obesity related modeling. She has worked with large complex and high dimensional datasets and co-invented the remote weight loss program, SmartLoss™, which has been clinically applied world-wide to guide and improve individual patient weight loss adherence through smartphone technology. Dr. Thomas has published over 150 peer-reviewed articles and has led the development of over 10 freely accessible health calculators. She is an associate editor for the world's top ranked journal for original research in nutrition, the *American Journal of Clinical Nutrition* and co-edits the series "Best (but oft-forgotten) practices", which consists of methodologic commentaries or statistical tutorials. She also serves as an editor for *Nutrition and Diabetes* and the *European Journal of Clinical Nutrition*. She has held governance positions in the Obesity Society, the American Society of Nutrition, and the Mathematical Association of America. Dr. Thomas holds the 2012 Mathematical Association of American of NJ Distinguished Teaching Award and the 2015 Obesity Society George Bray Founder's Award. She received her Ph.D. from the Georgia Institute of Technology in 1996. She then completed a National Research Council funded post-doctoral fellowship at the United States Military Academy and the Army Research Laboratory.



Steven Zeisel, M.D., Ph.D.
University of North Carolina at Chapel Hill, UNC Nutrition Research Institute, and SNP Therapeutics
Planning Committee Member
Steven Zeisel is Kenan Distinguished University Professor in Nutrition and Pediatrics, Director of the Nutrition Research Institute and Director of the University of North Carolina at Chapel Hill (UNC) Nutrition Obesity Research Center, and founder and Scientific Advisor for SNP Therapeutics. The Nutrition Research Institute focuses on using genetic, epigenetic and metabolomic methods to discover why there is individual variation in responses to, and requirements for nutrients. The UNC Nutrition Obesity Research Center is one of twelve centers of excellence in nutrition research funded by the U.S National Institutes of Health. Dr. Zeisel's research focuses on dietary requirements for the nutrient choline, genetic variation as a source of individual differences in requirements for, and responses to nutrients, effects of choline and folate on stem cell proliferation and apoptosis and resulting effects on health. He has spun out a company, SNP Therapeutics, which develops genetic tests that detect gene variants that alter the metabolism of nutrients and result in health problems. Dr. Zeisel is the author of more than 300 peer reviewed scientific papers. He holds an M.D. from Harvard Medical School, and a Ph.D. in nutrition from Massachusetts Institute of Technology.