Plenary Speakers

Jesús Argente, Spain

Jesús Argente, MD, Ph.D., is chief of Pediatrics and Endocrinology at the Hospital Infantil Universitario Niño Jesús and Full Professor and Director of the Department of Pediatrics of the Universidad Autonoma of Madrid, Spain. He is also a group leader in the Spanish Network for the study of obesity and nutrition (CIBEROBN). His main research interests include growth, pubertal development and childhood obesity. He has authored over 320 peer reviewed journal articles, where his most recent important contributions to growth research were the discovery of the first human mutations in PAPP-A2 and RNPC3 resulting in growth deficiencies.

Julia F. Charles, USA

Dr. Charles is a physician-scientist in the Departments of Orthopaedics and Medicine at Brigham and Women's Hospital (BWH) and an Assistant Professor at Harvard Medical School, where she joined the faculty in 2011. Dr. Charles completed an M.D. with Ph.D. in biochemistry at UCSF, followed by Internal Medicine training at BWH and specialty training in Rheumatology at UCSF. Dr. Charles is a practicing rheumatologist with an interest in bone disease, including Paget's disease and osteoporosis, particularly glucocorticoid-induced osteoporosis. Her research focuses on understanding how the microenvironment affects the function of bone cells to influence skeletal health, using mouse models of inflammation and ageing. She has a particular interest in how gut microbiota influence host physiology to promote bone formation, which led to the discovery that gut microbiota dynamically regulate circulating host IGF-1 levels, at least in part via generation of short chain fatty acids.

Vera Chesnokova, USA

Vera Chesnokova studied biology at the Novosibirsk State University in Russia and received her Ph.D. and Doctor of Sciences degrees at the Institute of Cytology and Genetics in Novosibirsk. She joined Cedars-Sinai Medical Center in Los Angeles in 1996. She serves as an Associate Professor of Medicine at Cedars-Sinai, and has a joint appointment as Adjunct Professor of Medicine at the David Geffen School of Medicine, University of California, Los Angeles. Dr. Chesnokova's research focuses on the molecular and physiological mechanisms of pituitary tumor development and the role of cellular senescence in growth of somatotroph pituitary tumors that hypersecrete growth hormone (GH). She showed that somatotroph tumors express high levels of the Cdk inhibitor p21, which arrests tumor growth and malignant transformation. She further showed that activation of the p53/p21 senescence pathway induces GH in both pituitary and non-pituitary cells. These findings serve as a foundation for her current work investigating the roles of pituitary-derived and local GH on cell cycle disruptions and the DNA damage response in non-tumorous colon cells and tissues and human Intestines-on-Chip.

Peter Clayton, UK

Peter Clayton is Professor of Child Health and Paediatric Endocrinology and an honorary consultant at the Royal Manchester Children's Hospital and at the Christie Hospital. He graduated from Manchester University Medical School in 1984, having obtained a first class intercalated degree in Physiology and Pharmacology in 1981. He did his early paediatric training around Manchester before embarking on an academic career in Paediatric Endocrinology. He spent time at the University of Virginia, USA with Prof. Michael Thorner, as a MRC Travelling Fellow in 1990/1991. His primary research interest is centered on understanding mechanisms leading to disordered growth and development.

He is one of seven consultants who provide a tertiary paediatric endocrine service across the North West of England, and a nationally commissioned service for children with congenital hyperinsulinism.

He has organised and chaired a number of International Consensus meetings on aspects of paediatric endocrinology, including Transition. He has served two terms on the Growth Hormone Research Society Council. He is currently 'Secretary-General' of the European Society of Paediatric Endocrinology (ESPE), and Head of the School of Medical Sciences in the Faculty of Biology, Medicine & Health at the University of Manchester.

Pamela Freda, USA

Pamela U. Freda, MD is Professor of Medicine at Columbia University Medical Center. She is Clinical Director of the Neuroendocrine Unit and co-Director of the Pituitary Center at Columbia College of Physicians & Surgeons at Columbia University Medical Center. Her clinical interests include pituitary tumors, in particular acromegaly, other neuroendocrine disorders and hypopituitarism. She was appointed to the Academy of Clinical Excellence, Columbia University Medical Center in 2016. She serves on the editorial board of the Journal of Clinical Endocrinology & Metabolism. Her research focuses on the evaluation and treatment of acromegaly, other pituitary tumors and growth hormone deficiency.

C. Ronald Kahn, USA

C. Ronald Kahn is a world-recognized expert in diabetes/obesity research and a preeminent investigator of insulin signal transduction and mechanisms of altered signaling in metabolic disease. Kahn is currently the Chief Academic Officer, Head of the Section on Integrative Physiology and Metabolism at Joslin Diabetes Center and the Mary K. Iacocca Professor of Medicine at Harvard Medical School. Kahn served as Research Director of the Joslin Diabetes Center from 1981 to 2000, and President of Joslin from 2001 to 2007.

He has received more than 70 awards and honors, including election to the National Academy of Science and Institute of Medicine, Wolf Prize in Medicine, Rolf Luft Award, Allyn Taylor International Prize in Medicine, Manpei Suzuki and Hamm International Awards, and the highest honors of the American Diabetes Association, EASD, Endocrine Society and the American Association of Clinical Endocrinologists. He has authored more than 600 original articles and 200 reviews and chapters. Dr. Kahn also served as chair of the Congressionally-established Diabetes Research Working Group, which developed the strategic plan for all

federally-funded diabetes research, as well as President of the American Society of Clinical Investigation. Dr. Kahn holds undergraduate and medical degrees from the University of Louisville and did his training at Barnes Hospital/Washington University and the NIH. He has honorary Doctorates from the University of Paris, University of Louisville, University of Geneva, University of Copenhagen, Louisiana State University, and Washington University in St. Louis, and is an honorary Professor and Director of the Diabetes Center at Peking University School of Medicine.

Irène Netchine, France

Irène Netchine is professor of physiology at Sorbonne Université, Trousseau Children's Hospital, Paris, France. Following training in pediatric endocrinology at Pierre et Marie Curie School of Medicine, she earned her Ph.D. in human genetics in 2002. In 2006, she spent a year as a Visiting Scholar with Professor P. Cohen at David Geffen School of Medicine at UCLA, USA. In 2012, she became a full Professor of Physiology at the Sorbonne University, and a Research Team Leader at the French National Institute of Health and Medical Research (INSERM), coordinating a Department of Pediatric Endocrinology, a hormonal and molecular diagnosis laboratory (researching growth retardation and excessive growth), and a medical center for rare growth disorders. She has been the Vice-Chair for a European Cooperation in Science and Technology (COST) European Network for Human Congenital Imprinting Disorders and was the European Society of Pediatric Endocrinology (ESPE) Research Unit Coordinator and is now the Pediatric Co-Chair for Growth and Rare Obesity Syndromes for the European Reference Network on Rare Endocrine Conditions (ENDO-ERN).

She has a background in the genetics of growth hormone deficiency and molecular pathology of anterior pituitary development, and currently researches the implication of the insulin-like growth factor (IGF) system in intrauterine growth retardation and imprinting anomalies leading to fetal growth disorders. She developed a multidisciplinary clinic for patients with Silver-Russell syndrome and Beckwith-Wiedemann syndrome and was the Chair of the first Silver-Russell international consensus.

Vishwajeet Puri, USA

Dr. Puri is an endowed professor and Director of Basic and Applied Research at the Diabetes Institute and the Department of Biomedical Sciences, Ohio University, Athens, OH. He works in the area of fat metabolism and its role in pathogenesis and pathophysiology of metabolic disease including obesity, insulin resistance, type 2 diabetes and cardiovascular disease. The primary focus of Puri lab is to identifying the major molecular mechanisms that regulate fat storage and lipolysis in adipocytes.

Dr. Puri has a broad research experience in the area of lipid metabolism in metabolic disease and an accomplished research record investigating various lipid classes including phospholipids, sphingolipids, cholesterol, and fatty acids.

During his post-doctoral training at the Mayo Clinic, he identified the role of cholesterol in the pathogenesis and pathophysiology of sphingolipid storage disorders. His recent work identified CIDE protein family members, FSP27 and CIDEA, as lipid droplet associated proteins in adipocytes that play an important role in regulating fat metabolism and insulin sensitivity in humans. He is also working on identifying the physiological mechanism(s) of Growth Hormone action in adipose tissue.

Terry J. Smith, USA

Dr. Terry J. Smith, the Frederick G.L. Huetwell Professor in Ophthalmology and Visual Sciences at the University of Michigan, is an internationally-known endocrinologist who has studied Graves' disease, its eye manifestations, and related autoimmune disease for over 20 years. Dr. Smith's laboratory was first to describe the unique molecular attributes of tissue surrounding the eye that make it susceptible to inflammation in Graves' disease. He has identified a novel autoantibody that binds to and activates a specific receptor, resulting in an exaggerated autoimmune response. His investigation of these mechanisms has yielded several potential therapeutic targets that may interrupt the disease process.

Dr. Smith received his medical degree from the University of Missouri School of Medicine and completed his residency at the University of Illinois in Chicago and Sinai Hospital in Baltimore. Dr. Smith is the author of over 150 articles and book chapters, and has been awarded five patents for his research discoveries. He has been elected to the Orbit Society, is chief scientific officer for the National Graves' Foundation, and serves as reviewer for numerous scientific journals.

Shin-Ichiro Takahashi, Japan

Prof. Takahashi obtained his Ph.D. at the University of Tokyo on "New Perspective on the Mechanism of Action of Insulin and Epidermal Growth Factor" in 1987. He moved to the University of Agriculture and Technology as an instructor, working on "Interaction Between Extracellular Matrix and Growth Factor Bioactivities" from 1987-1988. Then he worked in the University of North Carolina at Chapel Hill for 2 years as a research fellow. He discovered novel mechanisms that potentiate insulin-like growth factors' bioactivities by tropic hormones. He moved back to the University of Tokyo as an associate professor in 1990 and since then has investigated how amino acid signals mediate/regulate insulin-like bioactivities and how other extracellular factors modulate insulin-like bioactivities, resulting in control of growth, development, metabolism and ageing.

Recently, his group discovered that insulin receptor substrates (IRSs), which are important mediators of insulin-like activities, form high-molecular-mass complexes even without insulin/insulin-like growth factor (IGF) stimulation. These complexes contain proteins modulating tyrosine phosphorylation of IRSs by their receptor kinase, proteins controlling stability of IRSs, proteins determining intracellular localization of IRSs and proteins mediating insulin/IGF bioactivities. One of causes of various age-related diseases is disorder of modulation of insulin-like bioactivities, suggesting that the IRSome is an important target for treatment of these diseases. Meanwhile, he functioned as a program officer in the Department of Research Promotion, Ministry of Education, Culture, Sports, Sciences and Technology, Japan where he participated in the development of policies concerning scientific research funds and their evaluation from 2001 to 2003.

Nicholas A. Tritos, USA

Nicholas Tritos, MD, DSc, FACP, serves as a pituitary endocrinologist at the Neuroendocrine Unit and the Neuroendocrine and Pituitary Tumor Clinical Center at Massachusetts General Hospital and an Associate Professor of Medicine at Harvard Medical School. His research and clinical interests include growth hormone and its effects on bone, pituitary tumors and neuroendocrine aspects of energy homeostasis. He has authored over 100 peer-reviewed articles in endocrinology and has authored or edited 20 book chapters and books. He has been serving as ad hoc peer reviewer and editorial board member for several professional journals in the field.

Daniela Tropea, Ireland

My lab studies the mechanisms of brain plasticity in health and disease and the effects of Insulin-like Growth Factor 1 (IGF1). I am also responsible for the teaching of Neurobiology of brain disorders modules in Trinity College, and I organize events to promote the outreach of this topic to students and general public. During my training, I studied the molecular mechanisms of brain plasticity and their function in neurodevelopmental disorders, and I found that unexpected molecular mechanisms are involved in brain plasticity, and each forms of plasticity elicits different pathways. During these years I identified IGF1 as a major agent for promoting development and plasticity in mutants of Autism Spectrum Disorders and in Rett Syndrome. Rett syndrome is a severe disorder that is lacking a treatment. In my studies I show that IGF1 is able to ameliorate the symptoms of the disease in a mouse model of Rett, and therefore has the potential of leading to a treatment for Rett and other neurodevelopmental disorders. My findings produced a new line of research for the use of IGF1 and its derivatives in neuropsychiatric disorders, and the efficacy of IGF1 has been proven for other neurodevelopmental disorders. Clinical studies are currently in place to test IGF1 efficacy in disorders of the autism spectrum. In parallel with the follow-up on the application of IGF1 for the treatment of Rett Syndrome, I keep investigating the relation between synaptic plasticity and genes involved in neurodevelopmental disorders.

Shoshana Yakar, USA

Dr. Yakar completed her Ph.D. in genetics in Tel-Aviv University in 1996. Following her graduation she joined the Clinical Endocrinology Branch at the National Institutes of Health as a post-doctoral fellow under the supervision of Dr. Derek LeRoith. In 2001 she became a staff scientist at NIH and by 2005 Dr. Yakar assumed an independent PI position at the Endocrine Department of The Mount Sinai School of Medicine in New York. In 2011 she resumed an associate professor at the NYU College of Dentistry, and was tenured in 2014.

Dr. Yakar's research is directed at understanding the role of the growth hormone (GH)/ insulin-like growth factor-1 (IGF-1) axis in skeletal metabolism during growth and aging, studies that were funded by NIH. Dr. Yakar is an internationally known scientist. She has generated numerous mouse models to understand the cell specific effects of GH/IGF-1 on bone. Dr. Yakar has authored over 130 peer reviewed studies. She served on the editorial board of several journals including Endocrinology and GH/IGF Research and was a member of the molecular and cellular endocrinology (MCE) study section at NIH.