SUNDAY, FEBRUARY 4
Arrival and Registration

MONDAY, FEBRUARY 5
Welcome and Keynote Session (Joint)
Stephen O’Rahilly, University of Cambridge, UK
Leveraging Genetics to Understand Metabolic Disease
Jose C. Florez, Massachusetts General Hospital, USA
Optimising Precision Medicine Across Diverse Ethnicities

Genetics of Obesity (Joint)
Kaja Wasik, Variant Bio, USA
Metabolic Disease in the Context of Genetic Diversity
Peter R. Shepherd, University of Auckland, New Zealand
Population Specific Precision Medicine for Metabolic Disease
Kathrin Landgraf, University of Leipzig, Germany
Short Talk: Ectopic ASIP Expression as a Monogenic cause of Childhood Obesity through Possible Interaction with the MC4R Pathway
Yana Hrytsenko, Harvard Medical School, Beth Israel Deaconess Medical Center, USA
Short Talk: Obstructive sleep apnea is associated with increased genetic risk of incident Diabetes Mellitus: the Hispanic Community Health Study/Study of Latinos

Workshop (X3)
Short Talks Chosen from Abstracts

Workshop 1 (X4)
Rifa T. Haque, Monash University, Australia
Activating Only the Intestinal Melanocortin-4 Receptor (MC4R) Promotes Weight Loss by Reducing Caloric Intake and Increasing Energy Expenditure
Warren T. Yacawych, University of Michigan, USA
Different Roles in Food Intake Regulation for Distinct Populations of Dorsal Vagal Complex Gipr1r Neurons
Hannah Glover, Columbia University, USA
Functional Genomics of Human Metabolic Disease at Single Cell Resolution
Baijie Xu, UT Southwestern Medical Center, USA
Orthopedia Regulates Mc4r Transcription and Human Obesity Risk
Misbah Rashid, National Institutes of Health, USA
Presence of Beta-Arrestin-2 is Required for Melanocortin 4 Receptor-Mediated Metabolic Effects
Jeevotham Senthil Kumar, Oklahoma State University, USA
CTRP6-Mediated Suppression of Macrophage M2 Phenotype: Implications for Obesity-Associated Inflammation
Hannah Elaine Swick, McGill University, Canada
Gliaal Support of Neurovascular Function in Obesity

Environmental Diversity Within and Between Populations (X3)
John Chambers, Nanyang Technological University, Singapore
Epigenetic Drivers of CMD in South Asians
K.M. Venkat Narayan†, Emory University, USA
Talk Title to be Announced
Karim Conde-Knape, Novo Nordisk A/S, Denmark
How can we Ensure Precision Medicines are Efficacious and Safe Across Diverse Ethnicities?
Chirag J. Patel, Harvard Medical School, USA
Short Talk: Assessing the Genetic Contribution of Behaviors and Exposures Associated with Longitudinal Type 2 Diabetes Highlights the Adiposity and the Brain-metabolic Axis
Annalisa Terranegra, Sidra Mecidine, Qatar
Short Talk: Exploring the Crosstalk Between Gut Microbiome, Lipid Metabolites, Apolipoproteins, and Inflammatory Markers in Obesity: A Multi-omics Approach in the Qatari Adult Population

Response to Environment (X4)
Kevin D. Hall, NIDDK, National Institutes of Health, USA
Ultra-Processed Foods and Obesity
Harriet Schellekens, University College Cork, Ireland
Microbiota and Stress
Simon Bredum, Novo Nordisk A/S, Denmark
Short Talk: Exploring Body Composition and Energy Expenditure Changes After Diet Restriction and Pharmacologically Induced Weight loss in a Göttingen Minipig Model of Obesity
Francois Briand, Physiogenex, France
Short Talk: Semaglutide and Lanifibranor Differentially Alter MASH and Liver Fibrosis in Diet-induced Obese Hamsters With or Without Free Access to Alcohol

Poster Session 1

TUESDAY, FEBRUARY 6
Diversity in Pathophysiological Drivers of CMD (X3)
Shivani Misra, Imperial College London, UK
Ethnic Diversity and Cardiometabolic Disease in Young People
Ewan Pearson, University of Dundee, UK
Ethnicity, Phenotype and Precision Diabetes Care
Ramesh Hariharan, Strand Life Sciences, India
India Mapping the South Asian Phenome for Precision Health
Alan James Davidson, University of Auckland, New Zealand
Short Talk: A gene variant in CALCRL, encoding a G-protein coupled receptor, is highly enriched in individuals with Māori and Pacific ancestry and is associated with a higher risk of kidney failure in diabetes
Delivering Precision Medicine in Low-Middle Income Settings (X3)

Moffat Nyirenda, London School of Hygiene and Tropical Medicine, Uganda
Optimising the Prevention and Treatment of CMD when Infectious Disease is Highly Prevalent

John Dennis, University of Exeter Medical School, UK
Parsimonious Strategies for Precision Medicine in Practice - Lessons from the TriMaster Trial

Viswanathan Mohan, Madras Diabetes Research Foundation & Dr. Mohan's Diabetes Specialities Centre, India
Barriers and Possibilities when Delivering Precision Medicine in Resource Constrained Settings: Indian Experience

Kristina M. Garske, Princeton University, USA
Detecting Decoherent Gene Co-Expression Patterns Associated with a Rural-to-Urban Lifestyle Transition in Turkana

Magdalena Sevilla-Gonzalez†, Massachusetts General Hospital, USA
Short Talk: Proteins associated with self-report race/ethnicity partially mediate the association with type 2 diabetes. A meta-analysis of 2,339 individuals from two multi-ethnic cohorts

Megan Leask, University of Alabama at Birmingham, USA
Short Talk: GWAS And Beyond: Cardiometabolic Variant Discovery For Māori And Pacific People

Obesity Co-Morbidities (X4)

Amalia Gastaldelli, Institute of Clinical Physiology, Italy
Cardiometabolic Risk, Insulin Resistance and Obesity

Philipp E. Scherer, University of Texas Southwestern Medical Center, USA
Why does Obesity Cause Diabetes?

Sam Lockhart, University of Cambridge, UK
Short Talk: Damaging Mutations in LXRalpha Uncouple Lipogenesis from Hepatotoxicity and Implicate Hepatic Cholesterol Sensing in Human Liver Health

Reiner Jumptertz von Schwartzenberg, Helmholtz Center Munich, Germany
Short Talk: Mechanisms of Prediabetes Remission in People without Weight Loss and with Weight Gain

Meenakshi Gupta, NIH, USA
Short Talk: G Proteins Gsa and Gq/11 in the Paraventricular Nucleus of the Hypothalamus (PVN) Mediate Distinct Cardiovascular and Metabolic Responses to Melanocortins

Chi Kin Wong, Lunenfeld-Tanenbaum Research Institute, Canada
Short Talk: Body Weight-independent Anti-inflammatory Effects of GLP-1R Agonists via the Neuronal GLP-1R

* Session Chair † Invited but not yet accepted  Program current as of January 14, 2024. Meal formats are based on meeting venue. For the most up-to-date details, visit https://www.keystonesymposia.org.
Poster Session 2

WEDNESDAY, FEBRUARY 7

Precision Obesity Management (Joint)

Karine Clément, INSERM / Sorbonne Universite, France
Precision Obesity Medicine in Practice

Daniel J. Drucker, Lunenfeld-Tanenbaum Research Institute, Canada
The GLP1/GIP System in Obesity Management

Moneeza Siddiqui, Queen Mary University of London, UK
Insights From Genetic and Observational Studies in South Asian Populations

Sarah Berry, King’s College London, UK
Personalised Nutrition in Obesity Management

Jordan B. Wean, University of Michigan, USA
Short Talk: GABAergic GIPR-expressing Neurons are Required for the Body Weight Reduction caused by Dual Incretin Agonists

Career Roundtable (Joint)

Genetic and Non-Genetic Biological Diversity Across Diverse Ethnicities (X3)

Kyle Kai-How Farh, Illumina, USA
What Can We Learn from Pan-Omic Technologies Deployed Across Diverse Ethnicities?

Paul W. Franks, Lund University and Novo Nordisk Foundation, Sweden
Next-Generation Epidemiology, Ethnic Diversity and Cardiometabolic Disease

Leslie J. Baier, National Institutes of Health, USA
Understanding the heritable basis of obesity and type 2 diabetes among Indigenous people living in Southwestern United States

William L. Holland, University of Utah, USA
Short Talk: Identification and Characterization of a Novel Variant in Neutral Ceramidase Associated with Diabetes and Kidney Failure in Tongan and Samoan Patients

Obesity Co Morbidities and New Therapeutic Avenues (X4)

Katherine R. Tuttle, University of Washington, USA
Kidney Disease and Obesity

Murielle M. Véniant-Ellison, Amgen Inc., USA
Early Obesity Drug Targets Towards Precision Management

Inderjeet Singh†, Helmholtz Zentrum Munich, Germany
Short Talk: Nrac Regulates Fatty Acid Import in Adipocytes via Regulating CD36 Localization

Frederike Sass, University of Copenhagen, Denmark
Short Talk: Dual Energy Expenditure and Appetite Control by Insulin-Sensitizing NK2R Agonism

Patrick Swan, Ulster University, UK
Short Talk: Alpha-melanocyte Stimulatory Hormone (α-MSH): A Novel Mediator of Skeletal Muscle Glucose Uptake in Humans

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (X3)

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (X4)

THURSDAY, FEBRUARY 8

Departure