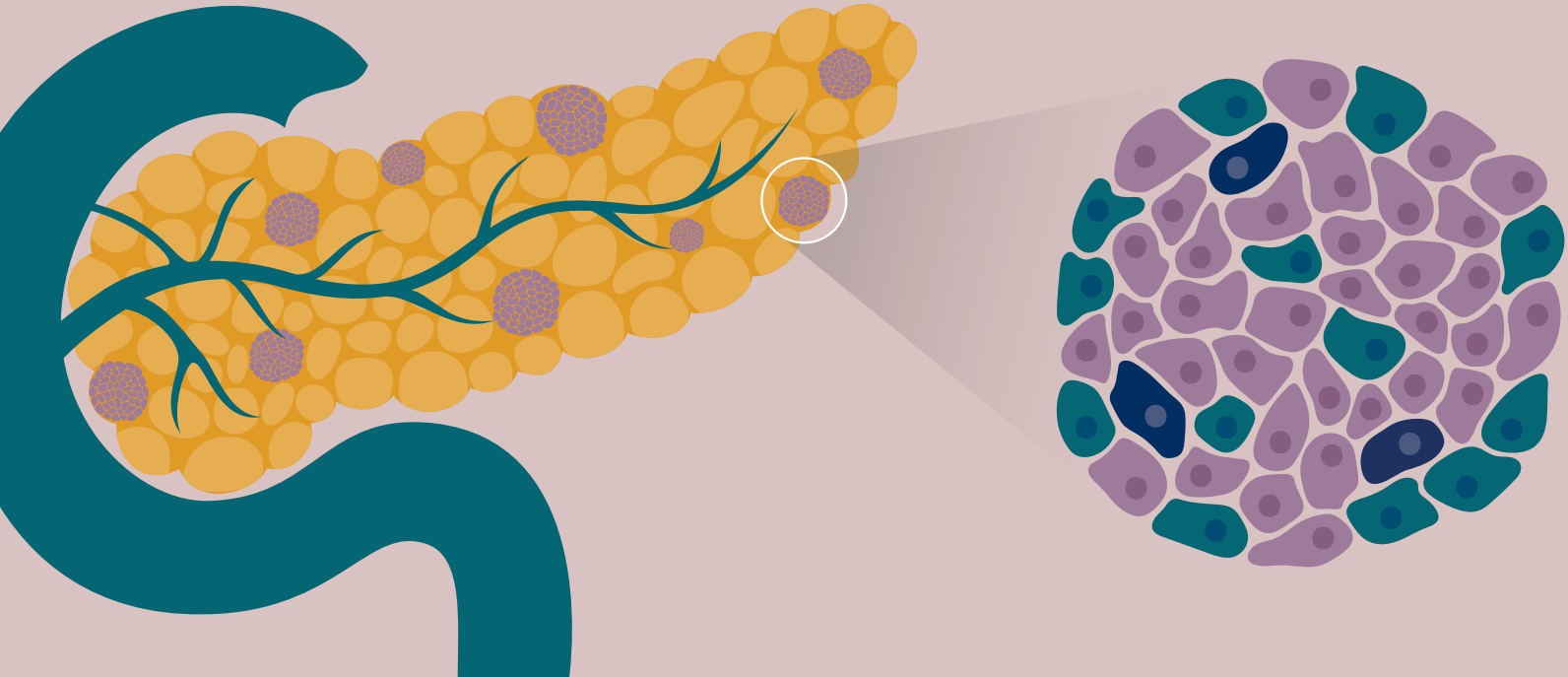
THE LEONA M. AND HARRY B.
HELMSLEY
CHARITABLE TRUST

# Understanding and Preventing Hypoglycemia in Diabetes

## Speaker Book

**9 September 2024**

IFEMA Convention Center – Feria de Madrid, Warsaw Hall,
Avda. del Partenón, 5, 28042 Madrid, Spain



## Speakers

### Sebastian Barg, PhD
### Uppsala University, Sweden

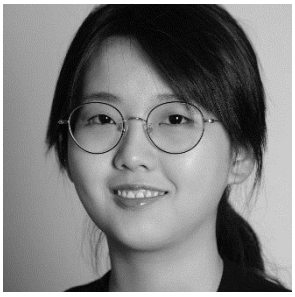
Dr. Barg received his PhD from Lund University (2001), completed his postdoctoral work at Vollum Inst/OHSU, was an assistant professor at Imperial College London, and is now a professor at Uppsala University. Dr. Barg's lab is interested in the cell biology of islet hormone secretion, with a focus on the life-cycle of the hormone-containing secretory granules. They study exocytosis in pancreatic ß-cells and other islet cells using advanced light microscopy (TIRF, super-resolution and single molecule imaging) in combination with patch clamp electrophysiology. The aim is to understand how release of individual granules is regulated at the molecular level, as well as the physiological consequences for hormone secretion in health and diabetes.

### Joan Camuñas-Soler, PhD
### University of Gothenburg, Sweden

Dr. Camuñas-Soler is an Assistant Professor and Wallenberg Molecular Medicine Fellow at the University of Gothenburg since 2022. His current research focuses on data-driven genomics and precision medicine. Previously, as a postdoctoral scholar at Stanford University, he pioneered novel single-cell genomic techniques to study islet-cell function in health and diabetes. Additionally, he developed liquid biopsy tools for the early prediction of pregnancy complications, which led to the creation of a molecular diagnostics startup. His research is highly interdisciplinary, combining approaches from molecular engineering, biophysics, and computational biology. His work has been recognized with several awards, patents, and prestigious establishment grants.

### Malin Fex, PhD
### Lund University, Sweden

Dr. Fex holds a Master's degree in Cell and Molecular Biology and a PhD in Medical Science from Lund University. The overarching goal of Dr. Fex's research is to understand why pancreatic beta cells fail to produce adequate amounts of insulin to regulate whole body metabolism in type 2 diabetes (T2D). The lab primarily focuses on monoamine signaling within the islet of Langerhans, with substantial work dedicated to the roles of serotonin and melatonin in regulating islet function. Dr. Fex has utilized data from genome-wide association studies (GWAS), such as those identifying the melatonin receptor 1B (MTNR1B) as robustly associated with T2D. Another key area of Dr. Fex's research is the mechanisms of autophagy, a tightly regulated process crucial for cell maintenance and survival. Specifically, the lab investigates the role of autophagy in pancreatic beta cells under metabolic stress and in the context of type 2 diabetes. With a focus on diabetes-related research for the past 15 years, Dr. Fex aims to continue contributing to this field for many years to come.



### Rui Gao, MD, PhD
### University of Oxford, England

Following an MBBS at Nanjing Medical University in 2017, Rui Gao did part of her PhD training at OCDEM with Prof. Patrik Rorsman and Prof. Quan Zhang, where she made the significant discovery of the reciprocal paracrine feedback loop between pancreatic alpha cells and delta cells and its plasticity in recurrent hypoglycemia. After completing her PhD in 2021, she continued her research as a postdoctoral researcher in the Rorsman Lab, focusing on the role of pancreatic delta cells in defective glucagon counter-regulation in type 1 diabetes. In 2024, she undertook a new role as a Clinical Research Fellow, leading the LEGEND-D (Low dosE GlibENclamide and Dapagliflozin in type 1 Diabetes) trial, investigating whether glibenclamide or dapagliflozin can restore the counter-regulatory glucagon response during induced hypoglycemia in individuals with type 1 diabetes.

### Karen Hauda, JD, MS
### Novo Nordisk, United States

Karen Hauda is a Senior Director in the Clinical Development, Medical and Regulatory Affairs Division at Novo Nordisk Inc. In this role, she oversees and develops strategies on regulatory advocacy and policy and supports regulatory product submission strategies to positively influence the regulatory environment in the United States and globally. Karen previously held roles at Abbott and AbbVie as Senior Director of Biologics Strategic Development, where she supervised biotherapeutic outreach strategies across all functions globally, and as a Senior Director within the Global Government Affairs and Policy division. Prior to joining AbbVie, Karen served with the U.S. government as an intellectual property and Trade Attorney. Karen has additionally worked as an investigator for cancer gene therapy clinical trials at Johns Hopkins University and her research experience also has encompassed the study of the immune responses to parasitic diseases, including malaria, trichinella and schistosomiasis. Karen received a B.S. in Biochemistry and Molecular Biology and a M.S. in Veterinary Science with an emphasis in Immunology from the University of Wisconsin-Madison and received her J.D. from the Columbus School of Law at the Catholic University of America in Washington, D.C. Karen is a member of the Virginia State Bar and the Patent Bar.

### Richard Liggins, PhD
### Zucara Therapeutics, Canada

Dr. Liggins is the Chief Scientific Officer and co-founder of Zucara and has led Zucara's technology development from its discovery through to clinical development. Dr. Liggins is an inventor of certain aspects of Zucara's intellectual property. Prior to Zucara, he was Senior Director of Advanced Projects at adMare BioInnovations (formerly CDRD), developing a portfolio of assets to commercialization through NewCo formation or out-licensing. Earlier he was a Research Scientist at Angiotech Pharmaceuticals, responsible for development of injectable formulations in clinical development. With a background in both drug and device development, Dr. Liggins has contributed to multiple IND filings, advancing programs from pre-clinical through Phase 2 development. Dr. Liggins obtained his PhD in Pharmaceutical Sciences at the University of British Columbia in 1998.

### Asger Lund, MD, PhD
### University of Copenhagen, Denmark

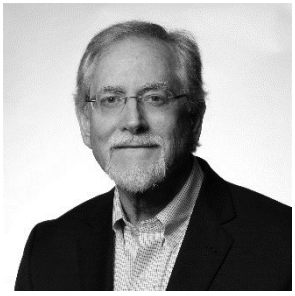
Dr. Asger Bach Lund, MD, PhD, is a consultant endocrinologist and acting director of the Center for Clinical Metabolic Research at Gentofte Hospital, University of Copenhagen, Denmark. He specializes in metabolic physiology and the role of the gut in human glucose metabolism. His research focuses on the pathophysiology of diabetes, with a particular emphasis on the role of glucagon in both type 1 and type 2 diabetes.

### Marjana Marinac, PharmD
### Breakthrough T1D, United States

Marjana Marinac is the Assistant Vice President of Regulatory Affairs and is responsible for developing and implementing regulatory strategies to advance and accelerate the approval of therapies to cure, prevent and treat type 1 diabetes (T1D) and its complications. Prior to joining BreakthroughT1D in 2012, Dr. Marinac developed and implemented regulatory strategies in the pharmaceutical and biotech industries, working across various therapeutic areas including sedation, oncology, vaccines, and type 1 diabetes with a focus on late-stage clinical drug development. She received her Doctor of Pharmacy degree (PharmD) from Butler University in Indianapolis, Indiana.

### Dale Morrison, PhD
### University of Melbourne, Australia

Dr. Morrison is a research fellow and exercise physiologist at the Department of Medicine at the University of Melbourne in Australia. Doctor Morrison completed his PhD in 2018 from Deakin University in the physiology of exercise and nutrition and currently works in the Diabetes Technology Research Group at St Vincent's Hospital Melbourne, lead by Professor David O'Neal. Dr. Morrison's current research focus is on how physiology, nutrition, exercise and technology can improve the lives of adults with type 1 diabetes, and specifically on the physiology of whey protein ingestion and its potential utility for preventing hypoglycemia around exercise.



### Alvin C. Powers, MD
### Vanderbilt University Medical Center, United States

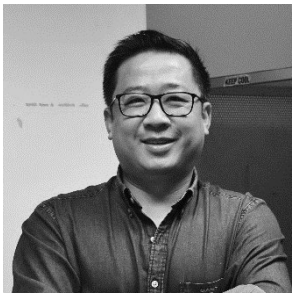
Dr. Powers, a physician-scientist, is the Joe C. Davis Chair in Biologic Science and Professor of Medicine, Molecular Physiology and Biophysics and Chief of the Division of Diabetes, Endocrinology, and Metabolism at Vanderbilt University Medical Center. He is also the Director of the Vanderbilt Diabetes Center and the NIH-funded Vanderbilt Diabetes Research and Training Center. His research on type 1 and type 2 diabetes focuses on the development, vascularization, innervation, function, and dysfunction of pancreatic islets.

### Michael Rickels, MD, MS
### University of Pennsylvania School of Medicine, United States

Dr. Rickels is the Willard and Rhoda Ware Professor in Diabetes and Metabolic Diseases at the University of Pennsylvania Perelman School of Medicine where he serves as Director of Clinical Science in the Division of Endocrinology, Diabetes and Metabolism, Director for Translational Research in the Institute for Diabetes, Obesity & Metabolism, and Medical Director for the Pancreatic Islet Cell Transplant Program. Dr. Rickels conducts patient-oriented diabetes research that investigates the physiology of islet function and replacement and glucose counter regulation in defense against hypoglycemia in type 1 diabetes and pancreatogenic forms of diabetes such as cystic fibrosis-related diabetes. This work has been continuously funded by the National Institutes of Health where Dr. Rickels has served as chair of the metabolics study subcommittee for the Clinical Islet Transplantation (CIT) Consortium, chair of the data and safety monitoring board for the Restoring Insulin Secretion (RISE) Consortium, and currently chairs the publications committee for the Collaborative Islet Transplant Registry (CITR), and serves as steering committee member for the Impaired Awareness of Hypoglycemia Consortium. Dr. Rickels has also served as vice-chair for the Helmsley-sponsored Type 1 Diabetes Exchange Clinic Network and Registry, as Associate Editor of Endocrine Reviews, and currently serves as Associate Editor of Diabetes Care and as Treasurer for the International Pancreas and Islet Transplant Association. Dr. Rickels is an elected member of the Association of American Physicians.

### Lori Sussel, PhD
### University of Colorado, Anschutz Medical Campus, United States

Dr. Sussel is the Research Director of the Barbara Davis Diabetes Center (BDC) and Director of the NIDDK-funded University of Colorado Diabetes Research Center. She also serves the University of Colorado, Anschutz Medical Campus as Associate Vice Chancellor for Basic Science Research. Dr. Sussel received her graduate degree from Columbia University Medical School, and postdoctoral fellowship at the University of California, San Francisco. Dr. Sussel's research has been funded by multiple grants from the National Institutes of Health (NIH), as well as from the Juvenile Diabetes Research Foundation (JDRF) and the American Diabetes Association (ADA). Her work has been published in numerous high impact journals, including Cell Metabolism, Nature, and Developmental Cell. Overall, Dr. Sussel's research has contributed significantly to our understanding of the development and function of pancreatic islet cells, as well as the immune mechanisms underlying type 1 diabetes (T1D). Her work has the potential to lead to new treatments and therapies for this devastating disease. As BDC Research Director, Dr. Sussel has also established an internationally recognized interdisciplinary research division focusing on all aspects of T1D research and discovery.



### Quan Zhang, PhD
### University of Oxford, England and University of Coimbra, Portug

Quan Zhang is Associate Professor of Endocrine Cell Physiology at the University of Oxford and an Assistant Researcher at the University of Coimbra in Portugal. He is an electrophysiologist who focuses on the physiological regulation of insulin, glucagon and somatostatin secretion, how these processes become disrupted in type-1 and type-2 diabetes and whether they can be targeted by pharmacological interventions. Quan Zhang earned a PhD in Molecular Physiology from Lund University. He was a postdoctoral fellow at the University of Oxford and the University of Alberta. He was the recipient of the RD Lawrence Fellowship from Diabetes UK in 2015. His current research focuses on the study of the crosstalk among islet cells, an intricate intra-islet communication that coordinates different types of endocrine cells into an integrated organ to effectively maintain systemic glucose homeostasis.

## Scientific Organizing Committee

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## Conference Support Team

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