



WCIRDC (World Congress Insulin Resistance Diabetes & Cardiovascular Disease 2025)

December 3-6, 2025; Universal City, CA; Preview – Draft

### Executive Highlights

- **The 23<sup>rd</sup> annual World Congress on Insulin Resistance, Diabetes & Cardiovascular Disease (WCIRDC) conference** will take place at the Hilton Universal Hotel in Los Angeles, California from December 3-6. See WCIRDC’s conference [website](#), register [here](#), and read through the full agenda [here](#).
  - **This year’s conference theme is:** “Exploring New Frontiers in Metabolism – Tomorrow’s Clinical Science Today.” The four-day conference will be full of scientific and clinical insights into obesity, kidney and liver diseases, incretin-based therapies, digital health, AI, and more!
- **Across the four days, sessions will focus on the biological mechanisms underlying cardiometabolic diseases.** Drs. Ralph DeFronzo (UT San Antonio), John Armato (Providence Medical Associates), and Vivian Fonesca (Tulane University) will discuss the role of insulin resistance across diabetes, prediabetes, obesity, cardiorenal, liver disease, and hypercortisolism. Drs. Orian Shirihai (UCLA) and Richard Kibbey (Yale University) will highlight mitochondrial signaling in regulating satiety, energy balance, and insulin resistance. Dr. Samuel Klein (Washington University in St. Louis) will offer insights into why body fat reduction improves metabolic function. Dr. Philipp Scherer (UT Southwestern) will discuss how fat, fibrosis, and inflammation contributes to the pathogenesis of the cardio-renal-metabolic syndrome.
- **We look forward to more on managing obesity, diabetes, and comorbidities.** On obesity management, Dr. Naresh Kanumilli (Greater Manchester and Eastern Cheshire Strategic Clinical Networks), Prof. Caterina Conte (San Raffaele University of Rome, Italy), and Dr. Pam Taub (UCSD) will discuss lifestyle interventions, therapies, and surgical procedures. Drs. Nathan Wong (University of California Irvine), Jennifer Green (Duke Health), and Stephen Greene (Duke University) will highlight cardiovascular disease (CVD) screening and treatment options for CKD and heart failure in people with T2D. We will also hear new trial analyses on the efficacy and safety of finerenone in people with heart failure or CKD with T2D, which would offer new insights into finerenone use in real practice.
- **Emerging therapies will be a strong focus of this meeting.** Dr. David D’Alessio (Duke University) will discuss the physiology and therapeutic application of GIP, glucagon, and amylin. Dr. Sunder Mudaliar (UCSD) will then provide a comprehensive overview of incretin-based therapies. We also look forward to a Friday afternoon session which will feature an update from three major pharmaceutical companies about their diabetes and cardiovascular disease pipeline. Drs. Steven Smith will speak on [Zealand Pharma](#), Dr. Anna Windle on [Novo Nordisk](#), and Mikhail Kosiborod on [AstraZeneca](#).

World Congress Insulin Resistance Diabetes & Cardiovascular Disease (WCIRDC) 2025 will take place in the Los Angeles, California, from Wednesday, December 3 to Saturday, December 6, 2025. See the WCIRDC conference [website](#), [registration](#), and [agenda](#). All times shown below are in local time (PST).

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## Wednesday, December 3

- **(4:40 – 5:55 pm): Insulin Resistance – Returning to Basics.** Dr. Ralph DeFronzo (UT San Antonio) will kick off the meeting by explaining how insulin resistance drives diabetes, obesity, cardiorenal and liver disease. We are curious how he will explain insulin resistance in the context of [noxious nine](#). Next, we will hear from Dr. John Armato (Providence Medical Associates) on how insulin resistance drives cardiometabolic risk in people with prediabetes but not obesity. Dr. Vivian Fonesca (Tulane University) will conclude with a discussion of insulin resistance and hypercortisolism. Given that hypercortisolism was found in 24% of those with difficult-to-manage T2D, we are curious how Dr. Fonesca will offer advice on screening and treatments.
- **(5:55 – 7:10 pm): Insulin Resistance – Co-Morbidities.** The meeting will pivot to clinical discussion about complex comorbidities of insulin resistance, as well as strategies for risk assessment and management. Dr. Nathan Wong (University of California Irvine) will spotlight cardiovascular prevention in people with cardiometabolic disease, including risk assessment using risk scores and opportunistic testing. Dr. Jennifer Green (Duke Health) will discuss the role of combination therapy in the modern management of CKD in people with T2D. Currently, the four pillars of CKD and T2D management include RAS blockers, SGLT-2 inhibitors, mineralocorticoid receptor antagonists (MRAs), and GLP-1 RAs. We are curious how Dr. Green may advise escalating the combination therapies in real practice. Finally, Dr. Stephen Greene (Duke University) will close the session with a discussion on the role insulin resistance and diabetes on heart failure.
- **(7:15 – 8:15 pm): Clinical Deep Dive: Unlocking the Treatment Potential of Rezdifra.** In this Madrigal industry-sponsored session, Dr. Anthony Pick (Northwestern University) will review the therapeutic efficacy of Rezdifra (resmetirom), a first-in-class, once-daily oral thyroid hormone receptor- $\beta$  agonist for metabolic dysfunction associated steatohepatitis (MASH). We're interested to hear Dr. Pick's perspective on how access to the pivotal MASH therapy might expand in clinic. Notably, in [3Q25](#), at least 10,000 prescribers had written at least one prescription for Rezdifra while up to [5% of adults](#) in the US have the disease.

## Thursday, December 4

- **(8:30 – 9:45 am): Obesity – Scientific Concepts.** Thursday morning will begin with scientific discussions on obesity pathogenic mechanism. We especially look forward to Dr. Orian Shirihai's (UCLA) overview of the role of mitochondrial signaling and function in insulin resistance and obesity. Yale's Dr. Richard Kibbey will offer more on the mitochondria, sharing insights on metabolic regulation through pyruvate kinase (a crucial enzyme in glycolysis), mitochondrial satiety (mitochondria send signals to the brain to regulate appetite and food intake), and energy balance. Finally, Dr. Samuel Klein (Washington University in St. Louis) will discuss why body fat reduction improves metabolic function.
- **(9:45 – 10:35 am): Pediatrics Obesity and Morbidities.** In this morning session, Dr. Brian Feldman (Yale) on how fat itself may be leveraged to combat obesity and diabetes, a provocative concept that could reframe therapeutic strategies for pediatric obesity. Given that his research focuses on brown fat, we imagine Dr. Feldman will share more insights into the basic science behind obesity and T2D, as well as potential therapeutic targets. Dr. Rohit Kohli (USC) will then address the evaluation and management of metabolic dysfunction-associated steatotic liver disease (MASLD) in children, a condition increasingly recognized as a serious comorbidity of pediatric obesity. We're eager to hear how Dr. Kohli will promote early intervention and diagnostic precision to improve outcomes.
- **(1:45 – 2:35 pm): Digital Health & AI.** This session will explore how artificial intelligence is reshaping care delivery in diabetes, obesity, and cardiometabolic diseases. Dr. Vivian Fonseca (Tulane) will kick off with a discussion on AI-enhanced decision support tools and their potential to facilitate more personalized treatment strategies. Dr. Seth Martin (Johns Hopkins) will follow with clinical implications of digital health and AI in cardiometabolic care, an area where remote monitoring, predictive analytics, and patient engagement tools are rapidly evolving.
- **(2:35 – 3:50 pm): Evolving Topics in Metabolism.** We are eager to hear from Dr. Jorge Plutzky (Harvard) on angiogenesis in health, disease, and therapeutics, and Dr. Robert Chilton (UT San Antonio) on the

lymphatic system in cardiometabolic disease. Dr. Richard Pratley (AdventHealth) will give a presentation on the evolving role of the duodenum (first part of the small intestine) in the pathophysiology of insulin resistance, diabetes, and obesity, as well as emerging treatment modalities. Given that duodenum plays a crucial role in digestion and gut hormone regulation, we're curious to learn what how it affects metabolic diseases.

- **(5:10 – 6:30 pm): Joint Session with Diabetes Care at WCIRDC 2025.** In this joint session, we will hear from Dr. Arnaud Kaze (University of Arizona) on the [Jackson Heart Study](#), with a closer look at diabetes, subclinical myocardial injury or stress, as well as the subtypes for risk of heart failure. Dr. Abigail Dieguez (Northwestern University) will follow with a discussion on the genetic risk scores for offspring exposed to maternal hyperglycemia in uterus. Dr. John Ostrominski (Harvard University) will close the session with a pooled analysis of the efficacy and safety of finerenone in trials for heart failure and CKD with T2D.

## Friday, December 5

- **(8:05 – 9:20 am): Lipid Disorders: The Current and the New.** We are eager to attend this morning session focused on lipid disorders and therapeutic markers. Dr. Ronald Krauss (University of California San Francisco) will introduce a soluble LDL receptor as a potential novel plasma marker for dyslipidemia and risk of congenital heart disease. Next, Dr. Erin Michos (Johns Hopkins University) will offer insights on the influence of female hormones on lipoprotein(a) levels, which are a known independent factor for atherosclerotic cardiovascular disease (ASCVD). Finally, Dr. Eliot Brinton (Utah Lipid Center) will offer further insights into rare dyslipidemias such as familial chylomicronemia syndrome.
- **(9:20 – 10:35 am): Important Science in Cardio-Renal-Metabolism.** Continuing the focus on foundational scientific concepts, Dr. Philipp Scherer (UT Southwestern) will discuss fat and fibrosis in the cardio-renal-metabolic syndrome, highlighting the pathogenic role of inflammation. Dr. Ralph DeFronzo (UT San Antonio) will then consider what the future holds for menin inhibitors and insulin sensitizers. Finally, Dr. John Buse (UNC) will close with the pathophysiology of hypercortisolism in diabetes and cardio-renal and metabolic diseases.
- **(11:05 – 12:20 pm): Atherosclerosis Cardiovascular Disease.** Pivoting to clinical cardiovascular management, this session will review science and clinical management of ASCVD. Atherosclerosis is a result of a build of plaque from fats, cholesterol, and other substances in the inner lining of an artery and is the underlying cause of nearly [half of all deaths](#) in westernized society. Dr. Norman Lepor (Cedars Sinai Hospital) will offer his perspective on cardiovascular outcomes trials in 2025, which we imagine will include SOUL and SURPASS-CVOT trials that evaluated oral semaglutide and tirzepatide. Dr. Matthew Budoff (UCLA) will then promote the use of coronary artery calcium (CAC) scoring and coronary CT angiography (CTA) as risk assessments in an era of artificial intelligence. Finally, Dr. Marc Bonaca (University of Colorado) will deliver guidance on lower extremity disease diagnosis and approaches to management.
- **(4 – 5 pm): A Glimpse into the Future – What's in the Pipeline?** We look forward to this afternoon session, which will feature an update from three major pharmaceutical companies about their diabetes and cardiovascular disease pipeline. We're expecting to hear from Dr. Steven Smith for [Zealand Pharma](#), which advances dual glucagon/GLP-1 RA survodutide, dual GLP-1/GLP-2 RA dapiglutide, long-acting amylin analog petrelintide, and glucagon analog dasiglucagon. This promises to be quite fantastic! Dr. Anna Windle will highlight [Novo Nordisk's](#) pipeline, spanning cagrilintide to CagriSema, amycretin, and tri-agonists. Dr. Mikhail Kosiborod will discuss [AstraZeneca](#), which has oral GLP-1 RA AZD5004, long-acting amylin analog AZD6234, and dual GLP-1/glucagon RA. This will undoubtedly be a very packed session, in terms of people in the room as well as information conveyed to those in the room!
- **(5 – 6:15 pm): Obesity management.** Dr. Naresh Kanumilli (Greater Manchester and Eastern Cheshire Strategic Clinical Networks, NHS, England) will kick off the session with a presentation on how to successfully treat obesity with lifestyle intervention. Prof. Caterina Conte (San Raffaele University of Rome, Italy) will continue with a discussion of therapies and surgical procedures in obesity management. Dr. Pam Taub (UCSD) will conclude by giving a cardiologist's perspective on managing obesity, by addressing cardiometabolic health-promoting diets.

## Saturday, December 6

- **(8:10 – 9:25 am): Kidney Disease & HTN.** We'll be up early on Saturday morning to attend session on kidney disease and hypertension. Dr. Matthew Weir (University of Maryland) will speak on the effect of mineralocorticoid receptor agonists (MRAs) on albuminuria, CKD, and atheroma volume and cardiac fibrosis in people with diabetes. Dr. Katherine Tuttle (University of Washington) will explore available treatment options for managing CKD in people with T1D. Finally, Dr. John Flack (Southern Illinois University) will review the causes, diagnosis, and treatment of resistant and refractory hypertension – both conditions characterized by high blood pressure despite treatment with multiple antihypertensive medications.
- **(9:25 – 10:10 am): Gerald Reaven Distinguished Leader in Insulin Resistance 2025 Award.** Dr. Tracey McLaughlin (Stanford University) will receive the [Gerald Reaven Distinguished Leader in Insulin Resistance 2025 Award](#). She will deliver a keynote lecture on her work in adipocyte dysfunction and its role in the metabolic heterogeneity of obesity. Given so much focus this year on obesity as a disease of adiposity, we are really eager to hear her talk, particularly given the prestige associated with the honor. Dr. McLaughlin joins a distinguished list of [previous award recipients](#) including Dr. Tim Garvey, Prof. Paul Zimmet, Dr. Vivian Fonseca, Dr. Sam Klein, Dr. Zach Bloomgarden, the late and distinguished Dr. Bob Henry, Dr. Philipp Scherer, Dr. Richard Bergman, Dr. Sonia Caprio, Dr. Ron Kahn, and more. We are very thrilled for Dr. McLaughlin and know she will give a top-notch presentation.
- **(10:20 – 11:10 am): Emerging Topics in Diabetes.** This session will dive into underrecognized cardiometabolic risks in T1D and explore novel complications linked to cardiovascular diseases. Dr. Peter Reaven (Phoenix VA) will present data on the prevalence of obesity and cardiometabolic risk factors in people with T1D, highlighting the potential of CGM to reduce mortality. Prof. Peter Grant (University of Leeds, UK) will then examine whether right ventricular dysfunction and pulmonary hypertension should be considered diabetes-related disorders, raising important questions about how metabolic disease intersects with cardiovascular and pulmonary systems.
- **(1:25 – 2:15 pm): The Incretins Phenomenon.** We look forward to hearing from Dr. David D'Alessio (Duke University) on the physiology of GIP, glucagon, and amylin and their application to therapeutics. We are curious if Dr. D'Alessio will provide insights on why GIP agonism and antagonism both lead to metabolic benefits. Dr. Sunder Mudaliar (UCSD) will then navigate the incretin jungle from GLP-1 to GIP to glucagon and beyond, where we look forward to a comprehensive overview of approved and emerging pharmacotherapy options.

-- by Colson Duncan, Kayla Mathieu, Elizabeth Rose, Kat Moon, Monica Oxenreiter, and Kelly Close