

8:00 am – 8:10 am Welcome & Introduction

Yehuda Handelsman, MD, Chair

SESSION #1

LIPOTOXICITY: THE PATHOPHYSIOLOGIC LINK BEHIND THE CARDIO-METABOLIC SYNDROME

Chairs: Ralph DeFronzo, MD • Robert Chilton, DO

8:10 am	The Myocardium: Too Fat to be Fit	Robert Chilton, DO
8:30 am	Fatty Kidney: The Renal Manifestation of the Metabolic Syndrome	Ralph DeFronzo, MD
8:50 am	Nonalcoholic Fatty Liver Disease and Diabetes: Clinical Implications of “Foie Gras”	Kenneth Cusi, MD
9:10 am	Hormone Replacement Therapy, Atherosclerosis and Cardiovascular Disease: An Update	Eric Ravussin, PhD
9:30 am – 9:50 am	Live Q&A Panel Discussion	

SESSION #2

HEART DISEASE IN WOMEN

Chair: Tracey McLaughlin, MD • Matthew Budoff, MD

9:50 am	Sex Differences in Coronary Artery Calcium and Long-term CV Mortality	Martha Gulati, MD
10:10 am	Sex-Specific Differences in Risk Factors for Development of Heart Failure in Women	Gina Lundberg, MD
10:30 am	Estrogen Replacement Atherosclerosis and CVD	Howard Hodis, MD
10:50 am – 11:10 am	Live Q&A Panel Discussion	

11:10 am – 11:55 am

PRODUCT THEATER Non-CME

An Approach to Managing Lipids: Oral, Nonstatin Therapies for Lowering LDL-C

Supported by: **ESPERION Therapeutics**

Paul Jellinger, MD



SESSION #3

LANCET DIABETES & ENDOCRINOLOGY & 18 WCIRDC JOINT SESSION: COVID-19, DM & METABOLISM

Chair: Marta Koch, PhD

11:55 am	Two Pandemics in Collision: COVID-19 and Diabetes	Paul Zimmet, AO, MD, PhD
12:15 pm	Managing Patients with Diabetes and COVID-19	Stefan Bornstein, MD
12:35 pm	Obesity and Metabolic Surgery During and Beyond COVID-19	Geltrude Mingrone, MD
12:55 – 1:15 pm	Live Q&A Panel Discussion	

SESSION #4

1:15 PM – 3:10 PM

CME SYMPOSIUM

HEART FAILURE AND KIDNEY DISEASE: THE NEXT EPIDEMICS

Chair: Yehuda Handelsman, MD

Supported by and Educational Grant from: **AstraZeneca**



1:15 pm	Introduction	Yehuda Handelsman, MD, Chair
1:20 pm	Epidemiology and Traditional Management of HF and CKD	Maria Rosa Costanzo, MD
1:40 pm	The Future Is Here: Contemporary Approach to HF with a Focus on HFrEF	Mikhail Kosiborod, MD
2:00 pm	Revolution in the Management of Moderate to Severe CKD	Katherine Tuttle, MD
2:20 pm	Impact of Recent CVOTs on Contemporary Guidelines for HF and CKD	Muthiah Vaduganathan, MD
2:40 pm – 3:10 pm	Panel Discussion Q&A: The Cardiorenal Syndrome — Is It More Than the Sum of the Individual Components? Moderator: Peter McCullough, MD, MPH	

SESSION #5

THE EFFECTS OF CANCER AND CANCER THERAPY ON METABOLIC DISORDERS

Chairs: Derek LeRoith, MD PhD • Zachary Bloomgarden, MD

3:10 pm	Overview of The Interaction Between Obesity, Diabetes and Cancer Therapy	Derek LeRoith, MD, PhD
3:30 pm	The Effect of Tyrosine Kinase, PI3K/mTOR Inhibitors on Metabolism	Emily Gallagher, MD, PhD
3:50 pm	Immunobiologics Effect on Diabetes: Type 1 And Type 2	Kevan Herold, MD
4:10 pm – 4:30 pm	Live Q&A Panel Discussion	

SESSION #5A

INSULIN RESISTANCE & T2D

Chairs: Vivian Fonseca, MD

4:30 pm	Important Role of Reduced Insulin Clearance in Pathogenesis of Type 2 Diabetes: Hypothesis and Experimental Confirmation in Man	Richard Bergman, PhD
4:50 pm – 5:00 pm	Live Q&A Panel Discussion	

5:00 pm – 6:00 pm DAY 1 SUMMARY SESSION

Ralph DeFronzo, MD • Yehuda Handelsman, MD • Mikhail Kosiborod, MD • Derek LeRoith, PhD • Gina P. Lundberg, MD • Paul Zimmet, AO, MD, PhD

SESSION #6

PEDIATRIC OBESITY MANAGEMENT

Chairs: Sonia Caprio, MD • Alan Sinaiko, MD

8:00 am	Pharmacotherapy in the Management of Pediatric Obesity	Aaron Kelly, PhD
8:20 am	Five-Year Outcomes of Gastric Bypass in Adolescents as Compared with Adults	Thomas Inge, MD, PhD
8:40 am	Sleeve Gastrectomy Impact on Cell Size and Genes from Adipose Tissue of Obese Adolescent Girls	Sonia Caprio, MD
9:00 am – 9:15 am	Live Q&A Panel Discussion	

SESSION #7

WHAT SHOULD WE TARGET TO TREAT INSULIN RESISTANCE? – POINT-COUNTER-POINT

Chairs: Richard Bergman, PhD • Bart Staels, PhD

9:15 am	The Ceramide Pathway as a Target for Insulin Sensitization	Philipp Scherer, PhD
9:35 am	Diacylglycerols and acetyl-CoA as a Therapeutic Targets for Insulin Resistance and Type 2 Diabetes	Gerald Shulman, MD, PhD
9:55 am – 10:15 am	Live Q&A Audience Vote/Panel Discussion	

SESSION #8

LIPIDS

Chairs: Paul Jellinger, MD • Ronald Krauss, MD

10:15 am	New Agents: PCSK9 siRNA (inclisiran) and Bempedoic Acid	Kausik Ray, MD
10:35 am	Triglycerides and CVD: Causal or Coincidental? Lessons from Recent Research	Robert Rosenson, MD
10:55 am	The Role of LP(a) & ANGPTL3 in Lipids Atherosclerosis and Cardiovascular Disease	Norman Lepor, MD
11:15 am – 11:35 am	Live Q&A Panel Discussion	

11:35 am – 12:20 pm

PRODUCT THEATER Non-CME

Potential Mechanisms Responsible for the Effects of Incretins on Atherosclerosis

Supported by: Lilly

Jane Luo, PhD



SESSION #9

INSULIN FOCUSED MANAGEMENT OF DM - TODAY AND TOMORROW

Chairs: Vivian Fonseca, MD • Phil Scherer, PhD

12:20 pm	Islet Cell Preservation & Replacement	Jay Skyler, MD
12:40 pm	Stem Cell Generated Human Islets- Rescue Diabetes Without a Device	Ronald Evans, PhD
1:00 pm	State of the Art Insulin Delivery Systems	George Grunberger, MD
1:20 pm	Tomorrow's New Insulin Today	Julio Rosenstock, MD
1:40 pm – 2:00 pm	Live Q&A Panel Discussion	

SESSION #10

METABOLISM & 18 WCIRDC JOINT SESSION: HISTORY OF INSULIN RESISTANCE & METABOLISM

Chair: Christos Mantzoros, MD, PhD

2:00 pm	Introduction	Christos Mantzoros, MD
2:05 pm	Insulin Resistance and Cardiovascular Disease	James Sowers, MD
2:30 pm	Insulin resistance, NAFLD/NASH and CVD Risk	Dimitri Mikhailidis, MD
2:55 pm	Go with the Flow: Understanding Lipid Metabolism with Tracer Methods	Gerald Watts, PhD
3:20 pm – 3:40 pm	Live Q&A Panel Discussion	

SESSION #11

ADVANCED TECHNOLOGIES & GENETICS FOR UNDERSTANDING & MANAGING IR & T2D

Chair: Daniel Einhorn, MD

3:40 pm	Multomics Analysis of IR vs IS Responses to Viral Infections, Exercise and Aging	Michael Snyder, PhD
4:00 pm	Continuous Glucose Monitoring for Precision Diets	Tracey McLaughlin, MD
4:20 pm	The Genetic Interrelationship Between T2D & Coronary Heart Disease	Jerome Rotter, MD
4:40 pm – 5:00 pm	Live Q&A Panel Discussion	

5:00 pm – 6:00 pm DAY 2 SUMMARY SESSION

Sonia Caprio, MD • Vivian Fonseca, MD • George Grunberger, MD • Yehuda Handelsman, MD • Paul S. Jellinger, MD • Philipp E. Scherer, PhD

SESSION #12

NAFLD/NASH

Chair: Sam Klein, MD

8:00 am	NASH- The Status of Diagnostics and Therapeutics	Christos Mantzoros, MD, PhD
8:20 am	The Sexually Dimorphic Nature of NASH May Impact on Disease Progression and Responses To Drugs	Bart Staels, PhD
8:40 am – 8:55 am	Live Q&A Panel Discussion	

SESSION #13

ATHEROSCLEROSIS CARDIOVASCULAR DISEASE

Chair: Norman Lepor, MD

8:55 am	Anti-Inflammatory Impact on Atherosclerosis: CVOT and Management Implications	Jorge Plutzky, MD
9:15 am	Impact of Non Statin Drugs On Plaque Formation and Atherosclerosis	Matthew Budoff, MD
9:35 am	GLP1ra and Atherosclerosis- Human Data at Last	Peter Reaven, MD
9:55 am – 10:15 am	Live Q&A Panel Discussion	

10:15 am – 11:00 am

PRODUCT THEATER Non-CME

Jardiance® (empagliflozin) tablets:
A Review of Multiple Clinical Trials and Approved Indications



Rosemarie Lajara, MD
FACE



Jonathan D. Rich, MD
FACC, FHFS

Supported by: Boehringer Ingelheim/Lilly USA LLC

SESSION #14

OBESITY - INTERVENTIONS

Chair: Tim Garvey, MD • Sam Klein, MD

11:00 am	The Influence of Dietary Carbs, Fat, And Quality on Ad Libitum Calorie Intake	Kevin Hall, PhD
11:20 am	Future of Obesity Pharmacotherapy: New Drugs and New Targets	W. Timothy Garvey, MD
11:40 am	Effects of Bariatric Surgery on Cardiovascular Events	Philip Schauer, MD
12:00 pm	Does Intestinal Bypass Surgery Really Have Weight-Loss-Independent Therapeutic Metabolic Effects?	Samuel Klein, MD
12:20 pm – 12:49 pm	Live Q&A Panel Discussion	

12:49 pm – 1:25 pm

PRODUCT THEATER Non-CME

Introducing the FreeStyle Libre 2 System
Supported by: Abbott

Eden Miller, DO

SESSION #15

COVID-19 PATHOPHYSIOLOGY AND ADVANCED MANAGEMENT

Chairs: Richard Pratley, MD • Matthew Weir, MD

1:25 pm	Pathophysiological Basis & Rationale for Early Outpatient Treatment of SARS-CoV-2 (COVID-19) Infection	Peter A McCullough, MD
1:45 pm	Sex Differences in Mortality from COVID-19 Pandemic	Erin D. Michos, MD
2:05 pm	The Role of Neutralizing Antibody Therapy in the Management of COVID-19	Ajay Nirula, MD, PhD
2:25 pm	Obesity & COVID 19	Tracey McLaughlin, MD
2:45 pm – 3:05 pm	Live Q&A Panel Discussion	

SESSION #16



3:05 PM – 4:45 PM CME SYMPOSIUM EMERGING STANDARD OF CARE IN THE PREVENTION OF CARDIOVASCULAR MORBIDITY AND MORTALITY

Supported by and Educational Grant from: **AMARIN**

Emerging Standard of Care In the Prevention of Cardiovascular Morbidity and Mortality

3:05 pm	Introduction	Yehuda Handelsman, MD, Chair
3:10 pm	Primary and Secondary Prevention of CVD – Current standard of Care	Deepak Bhatt, MD
3:30 pm	High TGL association with ASCVD- Epidemiology and pathophysiology	Neha Pagidipati, MD
3:50 pm	IPE impact on ASCVD Morbidity and Mortality	Matthew Budoff, MD
4:10 pm	Lipid Guidelines IPE related	Yehuda Handelsman, MD
4:15 pm – 4:25 pm	The New Standard of Care – Case based	Deepak Bhatt, MD
4:25 pm – 4:45 pm	Panel Discussion Q&A: The New Standard of Care	Moderator: Deepak Bhatt, MD

4:45 pm – 5:35 pm DAY 3 SUMMARY SESSION

Matthew J. Budoff, MD • Yehuda Handelsman, MD • Samuel Klein, MD • Norman E. Lepor, MD • Tracey L. McLaughlin, MD • Richard E. Pratley, MD • Matthew R. Weir, MD

SESSION #17 CARDIOVASCULAR DISEASE AND INSULIN RESISTANCE

Chairs: Jorge Plutzky, MD • Robert Chilton, DO

8:00 am	Insulin Resistance And Thrombotic Risk: Implications For Therapeutic Approaches To Vascular Disease	Peter Grant, MD
8:20 am	Update of Recent CV Outcome Trials	Sanjay Kaul, MD
8:40 am	The ACC's Expert Consensus Decision Pathway: Improving Cardiovascular Outcomes in Type 2 Diabetes	Brendan Everett, MD
9:00 am	The Future of Cardiometabolic Care is Here: Announcing Cardiometabolic Center Alliance	Mikhail Kosiborod, MD
9:20 am – 9:40 am	Live Q&A Panel Discussion	

SESSION #18 CONTEMPORARY ASPECTS OF DIABETES MANAGEMENT

Chairs: Peter Grant, MD • Jaime Davidson, MD

9:40 am	Managing Type 2 Diabetes to Prevent CVD-CKD: SGLT-2i, GLP-1RA or Initial Combination of Both?	Francesco Giorgino, MD, PhD
10:00 am	Hypoglycemia Impact and Management	Vivian Fonseca, MD
10:20 am	The Role of CGM in Diabetes Update toward 2021	Richard Bergenstal, MD
10:40 am – 10:59 am	Live Q&A Panel Discussion	

10:59 am – 11:30 am **PRODUCT THEATER Non-CME**
Atherosclerotic Cardiovascular Disease (ASCVD) in Diabetes: Identifying High Risk and the Importance of Reducing the Burden of Elevated LDL-C Levels
Supported by: Novartis

Yehuda Handelsman, MD



SESSION #19 OBESITY AND CVD IN TYPE 1 DIABETES

Chairs: George Grunberger, MD • Sonia Caprio, MD

11:30 am	The Current Management of CV Risk factors in Type 1 Diabetes	Robert Eckel, MD
	DEBATE: SHOULD T2D MEDICATIONS WITH PROVEN CV BENEFITS BE USED IN T1D TO PREVENT ASCVD	
11:50 am	Yes	Richard Pratley, MD
12:10 pm	Why Using T2D Medications with CVD Benefits is a Bad Idea for Type 1 Diabetes	David Nathan, MD
12:30 pm – 12:50 pm	Live Q&A Audience Vote/Panel Discussion	

SESSION #20 THE KIDNEY IN DIABETES

Chairs: Christian Mende, MD • Ralph DeFronzo, MD

12:50pm	KDIGO- Diabetes CKD and Hypertension New Guidelines	Matthew Weir, MD
1:10pm	GLP1-RA and SGLT2i in the Treatment of Diabetic Nephropathy: What Does the Future Hold?	David Cherney, MD
1:30 pm – 1:45 pm	Live Q&A Panel Discussion	

1:45 pm – 2:30 pm **PRODUCT THEATER Non CME**
VASCEPA (icosapent ethyl): Elevating the Standard of Care
Supported by: Amarin

Robert Busch, MD



SESSION #21
2:30 PM – 3:39 PM
ABSTRACT – ORAL PRESENTATION Zachary T. Bloomgarden, MD Chair
Philip Levy, MD • Daniel Einhorn, MD • George Grunberger, MD • Vivian Fonseca, MD
Abstracts are published in **Metabolism Journal** Editor-in-Chief: **Christos S. Mantzoros, MD, PhD**

SESSION #22 HEART FAILURE AND MANAGEMENT

Chair: Mikhail Kosiborod, MD

3:39 pm	Lifestyle Modifications for Preventing and Treating Heart Failure	Monica Aggarwal, MD
4:05 pm	All We Need to Know about HFpEF	Carolyn Lam Su Ping, PhD
4:25 pm	Update on HFOT impact on Management - Sequencing vs Initial Combination of Medication	Javed Butler, MD
4:45 pm – 5:05 pm	Live Q&A Panel Discussion	

5:05 pm – 6:00 pm DAY 4 SUMMARY SESSION

Ralph DeFronzo, MD • Daniel Einhorn, MD • Vivian Fonseca, MD • Yehuda Handelsman, MD • Mikhail Kosiborod, MD • Christian W. Mende, MD