



STANFORD CVI • PENN CVI • DUKE CVRC • WEILL CORNELL CVRI
Research Symposium

PENN-STANFORD-DUKE-CORNELL SYMPOSIUM
*New Horizons in CV Therapeutics:
From Target Discovery to Effective Delivery*
DECEMBER 7-8, 2026

Monday, December 7

8:00 am Registration and Breakfast

Continental Breakfast will be served.

8:30 am Welcome
Dan Kelly

8:40 am Welcome comments
Jonathan Epstein, Dean, Perelman School of Medicine; Executive Vice President,
University of Pennsylvania for the Health System

Session 1: Targeting cellular signaling and metabolism

Moderators: Dan Kelly and Sarah Sulon

8:45 am Zoltan Arany, Penn
How SGLT2 Inhibitors Improve Cardiac Function - It's Not What You Think

9:00 am Deborah Muoio, Duke
Succinyl-CoA Links Energy Metabolism and Ketolysis to Heme Synthesis and Cardiac Resilience

9:15 am Annarita Di Lorenzo, Cornell
Shaping the Heart's Fate: The Emerging Role of Sphingolipids

9:30 am Vinicio de Jesus Perez, Stanford
The Role of Lipid Biology in the Pathogenesis of PAH

9:45 am Howard Rockman, Duke
Super-Carvedilol: A Bitopic Allosteric Modulator on the Beta1-Adrenergic Receptor

10:00 am Geoff Pitt, Cornell
Cross Talk Between Metabolism and Cardiac Ion Channel Dysfunction Underlies Life-Threatening Arrhythmias in Timothy Syndrome

10:15 am Coffee Break

Session 2: From genes to targets

Moderators: Scott Damrauer and Mike Levin

- 10:45 am Rajan Jain, Penn
3D Genome Organization in Cardiac Development and Disease
- 11:00 am Mark Mercola, Stanford
hiPSC-cardiomyocyte phenotypes of cardiomyopathic gene variants correlate with clinical disease severity: Implications for drug discovery
- 11:15 am Sharlene Day, Penn
Hypertrophic cardiomyopathy: What's preventable or reversible, when and how?
- 11:30 am Daniel Rader, Penn
From Human Genetics to Validated Targets for Cardiometabolic Diseases

Selected Poster Flash Talks

- 11:45 am *Flash Talk (2 min)*
- 11:48 am *Flash Talk (2 min)*
- 11:51 pm *Flash Talk (2 min)*
- 11:54 am *Flash Talk (2 min)*
- 11:57 am *Flash Talk (2 min)*
- 12:00 pm **LUNCH and POSTER SESSION 1**
Poster presenters to be stationed at posters from 12:30pm- 1:30pm
Smilow Lobby

Session 3: Cell programming and reprogramming

Moderators: Howard Rockman and Maria Basil

- 1:35 pm Ravi Karra, Duke
Reconstructing a Myovascular Niche to Enable Heart Regeneration
- 1:50 pm Romulo Hurtado, Cornell
Cardiac Logic Beyond the Heart: Conserved Pacemaker and Contractile Programs in Autonomic Muscle
- 2:10 pm Bernhard Kühn, Cornell
Cardiomyocyte Regeneration in Human Patients
- 2:25 pm Ching Zhu, Duke
The Role of Neural Patterning in Ventricular Arrhythmias

Selected Poster Flash Talks

2:40 pm *Flash Talk (2 min)*

2:43 pm *Flash Talk (2 min)*

2:45 pm Coffee Break

Session 4: Targeting the immune system

Moderators: Liming Pei and Avery Posey

3:00 pm Bonnie Ky, Penn
The Role of the Immune System in Cancer Therapy Cardiotoxicity

3:15 pm Noor Momin, Penn
Nascent Matrix-Targeted Cytokines Boost Cardiac Healing After Myocardial Infarction

3:30 pm Patricia Nguyen, Stanford
Immune Modulation as a Therapeutic Strategy in Atherosclerosis

3:45 pm Kevin Southerland, Duke
Targeting Cellular Senescence to Reduce Amputation and Death in Peripheral Arterial Disease

4:00 pm Jon Epstein, Penn
Treating Cardiac Fibrosis With mRNA and Engineered T Cells

Selected Poster Flash Talks

4:15 pm *Flash Talk (2 min)*

4:18 pm *Flash Talk (2 min)*

4:21 pm *Flash Talk (2 min)*

4:24 pm *Flash Talk (2 min)*

4:27 pm *Flash Talk (2 min)*

4:30 pm **POSTER SESSION 2 AND RECEPTION**
Poster presenters to be stationed at posters from 4:30pm-5:30pm
Smilow Lobby

6:00 pm **DEPART for Speakers/Faculty Dinner (Invitation Only)**

6:15pm **Speakers/Faculty Dinner**
Penn Museum (Cocktails and explore gallery at 6:15pm, Dinner at 7pm)

Tuesday, December 8

7:30 am **Arrivals and Breakfast**
Continental Breakfast will be served.

8:25 am **Welcome comments and Keynote Introduction**
Thomas Cappola

8:30 am **Keynote Address: Kiran Musunuru and Rebecca Ahrens-Nicklas**
Precision Genetic Medicines for Metabolic Diseases

Session 5: Expanding the reach of cardiovascular care

Moderators: Peter Groeneveld and Lauren Eberly

9:00 am Lauren Eberly, Penn
Centering Communities to Advance Indigenous Cardiovascular Health

9:15 am Parag Goyal, Cornell
Polypharmacy in Heart Failure: Progress but Also Problem

9:30 am Alex Fanaroff, Penn
From Intention to Action: Applying Behavioral Economic Theory to Improve Cardiovascular Prevention

9:45 am Vinay Kini, Cornell
Known Unknowns: The Measurement Problem in Low-Value Cardiovascular Care

10:00 am Eldrin Lewis, Stanford
From Trials to Bedside: Designing a Strategy to Implement Quality of Life into Medical Decisions

10:15am Coffee Break

10:30 am Session 6: Mending the broken heart
Moderators: Joseph Wu and Deborah Eaton

10:35 am Ben Prosser, Penn
Directional Control of Cardiac Hypertrophy

10:50 am Sudha Shenoy, Duke
Targeting Glucagon Receptor Signaling to Improve Cardiac Function in Metabolic Disease

11:05 am Joseph Wu, Stanford
New Approach Methodologies: Genomics, Stem Cells, and AI for Drug Discovery

11:20 am Kenneth Margulies, Penn
Stiffness-Induced Metabolic Remodeling in Cardiomyocytes

- 11:35am Nenad Bursac, Duke
Gene Therapy for Weak and Erratic Hearts
- 11:50 am Julio Chirinos, Penn
Endotrophin in Heart Failure with Preserved Ejection Fraction
- 12:05 pm **LUNCH**
- 1:00 pm **Session 7: Re-building the heart and vasculature**
Moderators: Geoff Pitt and Jonathan Edwards
- 1:05 pm Marie Guerraty, Penn
Coronary Microvascular Disease: The Next Frontier in Ischemic Heart Disease
- 1:20 pm Jesus Maria Gomez Salinero, Cornell
Uncovering Organotypic Endothelial Cell Response to Damage in Cardiovascular Disease
- 1:35 pm Sean Wu, Stanford
Leveraging Developmental Mechanisms to Engineer Cardiac Regeneration
- 1:50 pm **Concluding remarks**
Rajan Jain and Sharlene Day

DEPARTURES