

The HDL Workshop

Exploring the Biology and Clinical Utility of High Density Lipoproteins

2025 HDL Workshop Exploring the Biology and Clinical Utility of High Density Lipoproteins

Co-Hosted by Dr. Marit Westerterp and Dr. Scott Gordon

Marriott Baltimore Waterfront
Baltimore, MD
April 25 - 26, 2025

The HDL Workshop provides an opportunity for researchers in the HDL community to discuss the latest developments in the field. This highly interactive international forum features short talks and stimulating discussions among the attendees and speakers. All times are in EST.

Day 1: HDL and Cardiometabolic Disease – Friday, April 25, 2025

- 1:30 PM–1:35 PM **Welcome and Introduction**
Marit Westerterp and Scott Gordon (Co-Chairs)
- 1:35 PM–2:10 PM **Diabetes-associated Atherosclerosis: Distinct Roles of Size-defined HDL Subpopulations**
Karin Bornnfeldt, PhD (Edwin L. Bierman Professor of Medicine, University of Washington)
- 2:10 PM–2:45 PM **Harnessing the Power of the HDL Proteome in Cardiometabolic Disease**
Fiona McGillicuddy, PhD (Assistant Professor, University College Dublin)
- 2:45 PM–3:00 PM **Trainee Talk: Development of a Mouse Model to Study the *In Vivo* Role of Modified HDL in Reverse Cholesterol Transport**
Jordan Bobek, Medical College of Wisconsin
- 3:00 PM–3:15 PM **Abstract Presentation: Post-transcriptional Modifications on tRNA Fragments Confer Functional Changes to High-density Lipoproteins in Atherosclerosis**
Kasey Vickers, PhD (Associate Professor, Vanderbilt University)
- 3:15 PM–3:45 PM *Coffee Break*
- 3:45 PM–4:20 PM **Trifluoroacetate Reduces Plasma Lipid Levels and the Development of Atherosclerosis in Mice**
Reza Ghadiri, PhD (Professor, Scripps Research Institute)

- 4:20 PM–4:55 PM **Enhancement of HDL Quantity and Quality by Cuban Policosanol (Raydel®) with Improvement of Blood Pressure and Cholesterol Efflux: Comparison with Copycat and Sugarcane Extract Powder**
Kyung-Hyun Cho, PhD (Head, Raydel Research Institute)
- 4:55 PM–5:10 PM **Trainee Talk: The Structure of Plasma High Density Lipoprotein Subspecies as Revealed by Cross-Linking and Cryo Electron Microscopy**
Bethany Coleman, University of Cincinnati
- 5:10 PM – 5:25 PM **Abstract Presentation: Cross-talk Between PIP2 and Cholesterol Regulates *In Vitro* and *In Vivo* nHDL Formation**
Kailash Gulshan, PhD (Assistant Professor, Cleveland State University)
- 5:25 PM–6:00 PM **Jack Oram Award Winner and Keynote Lecturer**
A Protein-based Structure for HDL Metabolism Connected to Risk of Cardiovascular Disease.
Frank Sacks, M.D. (Emeritus Professor of Medicine, Brigham and Women's Hospital Harvard Medical School) – Introduction by Sean Davidson
- 6:00 PM–8:00 PM **Poster Presentations and Happy Hour**

Day 2: HDL Function and Metabolism – Saturday, April 26, 2025

- 7:30 AM–8:30 AM *Breakfast*
- 8:30 AM–9:05 AM **Impact of Surgery on HDL Composition and Function**
Mireille Ouimet, PhD (Associate Professor, University of Ottawa Heart Institute)
- 9:05 AM–9:40 AM **Dysfunctional HDL Contributes to Cardiovascular Disease After Spinal Cord Injury**
William Bailey, (Scientist I, Gensel Laboratory, University of Kentucky)
- 9:40 AM–10:15 AM **Cholesterol Efflux: From Pathophysiology to Therapeutic Advances**
Elizabeth Tarling, PhD (Professor, UCLA)
- 10:15 AM–10:45 AM *Coffee Break*
- 10:45 AM–11:20 AM **ANGPTL3 Regulation of HDL Function**
Brandon Davies, PhD (Associate Professor, University of Iowa)
- 11:20 AM–11:55 AM **Intestinal HDL: Biological Functions and Therapeutic Targeting**
Gwendalyn Randolph, PhD (Emil R. Unanue Professor, Washington University)
- 11:55 AM–12:00 PM **Closing Remarks**
Marit Westerterp and Scott Gordon (Co-Chairs)

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Posters:

- 1. Association of the HDL-enriched glycome with cardiometabolic risk factors.**
 - Mark Sarzynski, University of South Carolina
- 2. Development of Nanodiscs with Embedded Acid Sphingomyelinase for Treatment of Niemann-Pick Disease**
 - Vasanthi Narayanaswami, California State University Long Beach
- 3. Development of Photoactivable apoE and apoA1 for In Vivo Tracking**
 - Michael R. Strickland, Washington University in Saint Louis
- 4. Docking poses of probucol, SQ, DQ and MDL-29311 to human ABCA1 revealed the involvement of cellular lipid efflux function**
 - Maki Tsujita, Nagoya City University Graduate School of Medical Sciences
- 5. Investigating a structural motif governing scavenger receptor CD36 oligomerization**
 - Emma Tillison, Medical College of Wisconsin
- 6. MicroRNA-33a/b Inhibition Attenuates Tissue Factor Activity and the Activation of Coagulation in Mice and Nonhuman Primates**
 - Phillip Owens, University of Cincinnati
- 7. Multi-Omics Characterization of HDL-Specific Phospholipid Efflux**
 - Kiani Jacobs, University of South Carolina
- 8. Postoperative Inflammation Impairs Reverse Cholesterol Transport and Fuels Postoperative Plaque Necrosis**
 - Dominique M. Boucher, University of Ottawa Heart Institute
- 9. Apolipoprotein A-I Proteoforms in Large HDL are Associated with Incident Myocardial Infarction: Observations from Dallas Heart Study**
 - Anamika Gangwar, UT Southwestern
- 10. Very high-density HDL (VHDL) particles have a unique proteome, lipidome, and small RNA profile**
 - Angela Zivkovic, UC Davis
- 11. Development of a Mouse Model to Study the *In Vivo* Role of Modified HDL in Reverse Cholesterol Transport**
 - Jordan Bobek, Medical College of Wisconsin

NOTES: