

Spring Workshop on HDL Structure (2009) (Tentative schedule)

organized by Mary Sorci-Thomas, Sean Davidson and Jay Heinecke

Friday May 1, 2009:

2:00-2:10 Opening remarks (Heinecke, Small)

SESSION 1: Experimental assessment of lipid-free apoA-I structure (2:00 – 4:00 PM)

2:10-2:30 Michael Oda, Ph.D. Structure of Lipid-free apoA-I

2:30-2:50 Discussion

2:40-3:00 David Atkinson, Ph.D. Role of apoA-I structure in lipid binding

3:00-3:20 Discussion

3:20-3:40 Alan Remaley, M.D. Understanding apoA-I function using peptides

3:40-4:00 Discussion

4:00-4:10 Break

SESSION 2: Experimental assessment of lipid-bound apoA-I (4:10-6:10 PM)

4:10-4:30 Mary Sorci-Thomas, Ph.D. Structure of lipid-bound apoA-I

4:30-4:50 Discussion

4:50-5:10 Gang Ren, Ph.D. Cryo EM of lipidated apoA-I particles

5:10-5:30 Discussion

5:30-5:50 Sean Davidson, Ph.D. Structure of lipid-bound apoA-I in spheres and plasma HDL

5:50-6:10 Discussion

Saturday May 2, 2009:

SESSION 3: Experimental and theoretical high-resolution models of lipid-bound apoA-I (8:00-10:00 AM)

8:00-8:20 Stan Hazen, M.D.. Neutron scattering and HDX based models of lipid-bound apoA-I

8:20-8:40 Discussion

8:40-9:00 Steve Sligar, Ph.D.. apoA-I structure in nano-discs

9:00-9:20 Discussion

9:20-9:40 Jere Segrest, M.D.. Molecular dynamics of lipid-associated apoA-I

9:40-10:00 Discussion

10:00-10:20 Break

SESSION 4: ApoA-I structural transitions and function (10:20 AM-12:30 PM)

10:20-10:40 Godfrey Getz, M.D. ApoA-I structural flexibility
10:40-11:00 Discussion

11:00-11:20 Michael C. Phillips, Ph.D. ApoA-I functionality in RCT
11:20-11:40 Discussion

11:40-12:00 Jay Heinecke, M.D.. Dysfunctional HDL
12:00-12:20 Discussion

12:20-12:30 Concluding remarks (Sorci-Thomas)

Depart

HDL workshop 2011
Chair: Alan Remaley

Confirmed Speakers:

1. Gary Ren: Structural basis of cholesterol transfer between high- and low-density lipoproteins by cholesteryl ester transfer protein
gren@lbl.gov
2. Mike Oda: From HDL Structure to Function - How Structural Information can Help Address Clinical Needs
Michael Oda <moda@chori.org>
3. Scott Gordon (post-doc: Sean Davidson): HDL Subspecies and Human Disease
gordonst@mail.uc.edu
4. Fatihah Tabet (post-doc: Kerry-Anne Reye) (Friday Afternoon): HDL attenuates vascular inflammation by miRNA delivery to endothelial cells.
Fatiha Tabet <Fatiha.Tabet@hri.org.au>
5. GM Anantharamiah: Interfacial residue changes and properties of a class A amphipathic helix
"G.M. Anantharamaiah" <ananth@aging.uab.edu>
6. Jere Segrest (Friday afternoon: Detailed structural features of the HDL assembly module: Monomeric apoA-I, ABCA1 and beyond
Jere Segrest <segrest@aging.uab.edu>
7. Mari-Sorci Thomas: Cholesterol Efflux, Microdomains and the Role of Nascent HDL Biogenesis in Chronic Inflammation and Atherosclerosis
Mary Sorci-Thomas <mstthomas@wakehealth.edu>
8. Roger Newton (Sat AM): In Vitro and In Vivo Functional Characterization of a Novel MPO-Oxidation Resistant Apolipoprotein A-I (4WF)
Roger Newton, Ajit Srivastava, Sergey Filippov, Steven Pinkosky, Richard Lister, Tim Hurley (Esperion Therapeutics Inc.)
Jonathan Smith, Stan Hazen (Cleveland Clinic Foundation) Roger Newton
<rnewton@esperion.com>
9. Kirk Pritchard: Biolayer Interferometry Measurements of HDL Interactions with MPO
"Pritchard, Kirkwood" <kpritch@mcw.edu>
10. John Bielicki :Translatability of HDL mimetic peptides
John Bielicki <jkbielicki@lbl.gov>
11. Katey Rayner (post-doc: Kathryn Moore): Therapeutic microRNA management of lipoprotein metabolism

"Rayner, Katey" Katey.Rayner@nyumc.org

12. Andrew Murphy (post-doc: Alan Tall): ApoE controls HSPC proliferation, monocyte production and atherogenesis
<am3440@columbia.edu>
13. Sam Wright: Enhancing cholesterol efflux by infusing reconstituted HDL.
Samuel.Wright@csllbehring.com
14. Norman Wong/Peter Young: RVX-208, an orally bioavailable inducer of ApoA-I in humans, stimulates ApoA-I by an epigenetic mechanism
peter@resverlogix.com
15. Eric Niesor (Friday afternoon, Allosteric modulation of CETP activities: is it achievable?
"Niesor, Eric J" <eric_j.niesor@roche.com>
16. Jean-Louis Dasseaux: CER-001, a Synthetic HDL Mimetic, Safely Mobilizes Cholesterol in Healthy Dyslipidemic Volunteers.
Jean-Louis Dasseux <dasseux@cerenis.com>
17. Tomas Vaisar (Univ. of Wash) HDL, from proteomics to function
Tomas Vaisar <tvaisar@u.washington.edu>
18. Al Bellibas (Medicine Co.): Profound Changes in Plasma Lipids and Ex-vivo Cholesterol Efflux Capacity in Cynomolgus Monkeys after MDCO-216 (ApoA-1 Milano/Phospholipid Complex) Administration
Al Bellibas al.bellibas@THEMEDCO.com
19. Marina Cuchel Translating macrophage RCT studies from mice to humans
Marina Cuchel <mcuchel@mail.med.upenn.edu>
20. Yvonne Lange: "How cells sense and set their cholesterol"
"Yvonne Lange Yvonne_Lange@rush.edu
21. John Ascin: Serum Amyloid A: An Acute-Phase Apoprotein of HDL That Facilitates Cholesteryl Ester Mobilization and Efflux From Macrophages.
jancsin@uchicago.edu

HDL Workshop 2014, Sheraton Centre Hotel, Toronto,

Canada Dominion Ballroom North (2nd floor)

Chair: Jonathan Smith

HDL Workshop Saturday May 3, 2014

| | | |
|---------------|---|--|
| 1:30 PM- 2:10 | Keynote: Ed Fisher, NYU atherosclerosis regression | Regulation of macrophage polarization by HDL in |
| 2:10 PM- 2:30 | Xiaohui Zha, Univ of Ottawa | How HDL facilitates macrophage M2 activation |
| 2:30 PM- 2:50 | Marit Westerterp, Columbia Univ | Cholesterol efflux pathways control inflammasome activation |
| 2:50 PM- 3:10 | Katey Rayner Univ of Ottawa | Can microRNAs make a big impact on HDL? |
| 3:10 PM- 3:30 | Howard Kruth, NIH | Cholesterol storage and efflux from the extracellular matrix |
| 3:30 PM- 3:50 | Break | |
| 3:50 PM- 4:10 | Chieko Mineo, UT Southwestern | SR-BI signaling in vascular cell function |
| 4:10 PM- 4:30 | Jacques Genest, McGill Univ Perspective | HDL, Function and Cardiovascular Disease: A Clinician's |
| 4:30 PM- 4:50 | Kerry Anne Rye, Univ of Sydney | Novel functions of HDL |
| 4:50 PM- 5:10 | Mary Sorci-Thomas, Wake Forrest atherosclerosis | Procollagen enhancer protein 2, HDL function, and |
| 5:10 PM- 5:30 | Jonathan Smith, Cleveland Clinic | Novel insights into ABCA1 mechanisms |

HDL Workshop Sunday May 4, 2014

| | | |
|----------------|---|--|
| 8:30 AM- 9:10 | Keynote: Stan Hazen, Cleveland Clinic | Mythbusters and Misconceptions: The Evolving Story of HDL |
| 9:10 AM -9:30 | Norman Miller, Oxford, UK | RCT and Lymph-fluid physiology; clinical relevance |
| 9:30 AM-9:50 | Alan Remaley, NIH Cholesterol Transport | 5A and Other Amphipathic Peptides for Increasing Reverse |
| 9:50 AM-10:10 | John Bielicki, Berkeley | ABCA1 agonist peptides with anti-diabetic actions |
| 10:10 AM-10:30 | Break | |
| 10:30 AM-10:50 | Herman Kempen, Medicines Co Surprising long-term changes in lipids and (apo)lipoproteins at higher doses | Single-ascending dose study of ETC-216 in human volunteers. |
| 10:50AM-11:10 | Sam Wright, CSL | CSL-111 ApoA-I infusions, therapeutic potential |
| 11:10AM-11:30 | Jean-Louis Dasseux, Cerenis results | CER-001 apoA-I infusions and IVUS – coronary atherosclerosis |
| 11:30AM-11:50 | Jan Johansson, Resverlogix cardiac events | RVX-208 apoA-I synthesis and coronary atherosclerosis and |
| 11:50 AM-12:10 | Eric J Niesor, Roche | CETP Inhibition: lessons learned from Dalcatrapib |
| 12:10 PM-12:30 | Giacomo Ruotolo, Lilly | Update on Evacetrapib CETP-inhibition |
| 12:30 PM-12:50 | Yale Mitchel, Merck | Update on Anacetrapib CETP-inhibition |

Spring Workshop on HDL 2015

Chair: Sean Davidson

Saturday May 9th 2015:

1:30-1:35 Meeting opening (Meeting Chair W. Sean Davidson, University of Cincinnati)

SESSION 1: WHAT IS HDL? (1:35 – 3:45 PM)

Session Chair: Giacomo Ruotolo, Eli Lilly Inc.

1:35-1:50 Tomas Vaisar, University of Washington “**Proteomics investigations of HDL: Challenges and Promise**”

1:55-2:10 Discussion

2:10-2:25 Scott Gordon, National Institutes of Health “**HDL Subspecies Containing Alpha 1 Anti-trypsin Inhibitor are Elevated by Statin Treatment**”

2:25-2:40 Discussion

2:40-2:55 John Chapman, INSERM France “**The Relationship of HDL Particle Heterogeneity to Atheroprotective Activity in Normolipidemia and Dyslipidemia**”

2:55-3:10 Discussion

3:10-3:30 Meeting-wide discussion led by session chair, Giacomo Ruotolo (Lilly, Indianapolis)

3:30-3:45 Break

SESSION 2: WHAT ARE THE BEST WAYS TO MEASURE HDL? (3:45-5:45 PM)

Session Chair: Mike Oda, Children’s Hospital of Oakland Research Institute

3:45-4:00 James Otvos, Liposcience, Inc. “**Interactions Between NMR-measured HDL Particles and GlycA, a Novel Inflammation Marker**”

4:00-4:15 Discussion

4:15-4:30 Jay Heinecke, University of Washington “**Quantification of HDL Particle Concentration by Calibrated Ion Mobility Analysis**”

4:30-4:45 Discussion

4:45-5:00 Bela Asztalos, Boston University “**High Pre- β -1 HDL: a Marker of Risk or Benefit?**”

5:00-5:15 Discussion

5:15-5:30 Brian Ishida or John Kane, University of California, San Francisco “**Relation of Increased Pre-beta1 High Density Lipoprotein Levels to Risk of Coronary Heart Disease**”

5:30-5:45 Discussion

Sunday, May 10th 2015:

SESSION 3: HDL FUNCTION IN CVD (8:00-10:00 AM)

Session Chair: Mary Sorci-Thomas, Medical College of Wisconsin

- 8:00-8:15 Dan Rader, University of Pennsylvania, **“HDL Cholesterol Efflux Capacity and Incident Cardiovascular Events”**
- 8:15-8:30 Discussion
- 8:30-8:45 Jonathan Smith, Cleveland Clinic, **“Apolipoprotein A-I modification and HDL function”**
- 8:45-9:00 Discussion
- 9:00-9:15 Anand Rohatgi, University of Texas Southwestern, **“HDL Cholesterol Efflux Capacity and Incident Cardiovascular Events”**
- 9:15-9:30 Discussion
- 9:30-9:45 Additonal Talk (TBD)
- 9:45-10:00 Discussion

10:00-10:20 Break

SESSION 4: HDL IN INFLAMMATION AND THE IMMUNE SYSTEM (10:20 AM-12:00 PM)

Session Chair: Margery Connelly, Liposcience.

- 10:20-10:35 Daisy Sahoo, Medical College of Wisconsin, **“SR-BI/CD36 Chimeric Receptors Define Extracellular Subdomains of SR-BI Critical for Cholesterol Transport”**
- 10:35-10:50 Discussion
- 10:50-11:05 Stephen Hajduk, University of Georgia **“A Retained Secretory Signal Peptide Mediates High Density Lipoprotein Assembly and Function of Haptoglobin-related Protein”**
- 11:05-11:20 Discussion
- 11:20-11:45 Alan Chait, University of Washington **“Apolipoprotein AI and high-density lipoprotein have Anti-inflammatory Effects on Adipocytes via Cholesterol Transporters”**
- 11:45:12:00 Discussion
- 12:00 Concluding remarks (or squeeze in one more talk)

Depart

6th HDL workshop
Omni Nashville Hotel, Nashville,
TN May 7-8, 2016
Chair: Tomas Vaisar

Saturday

HDL and atherosclerosis

- 1:30pm *LCAT: From bench to bedside.*
Alan Remaley, NHLBI, NIH, USA
- 2:00pm *The HDL Puzzle: Why classic epidemiology, genetic epidemiology, and clinical trials conflict?*
Robert S. Rosenson MD, Icahn School of Medicine at Mount Sinai, USA
- 2:30pm *Protective features of apoA1 and HDL in mouse models of atherosclerosis*
Edward Fisher, NYU School of Medicine, USA
- 3:00pm *HDL therapies: challenges, failures and opportunities*
Jacques Genest, U. Montreal, Canada
- 3:30pm BREAK

HDL - emerging areas

- 4:00pm *Endothelial Cell Biology of HDL and SR-BI*
Phil Shaul, UT Southwestern, USA
- 4:30pm *TBD*
Sam Tsimikas, Ionis Pharmaceuticals, Inc, USA
- 5:00pm *Functional Genomics: SCARB1*
Annabelle Rodriguez, U. Conn Health, USA
- 5:30pm **“Jack Oram Award for Outstanding HDL Research” award ceremony**
- 5:45pm **Round Table/Panel Discussion**
HDL and CVD risk: Cholesterol efflux capacity, apoC3 and triglycerides
Roger Newton, Esperion, USA
Jay Heinecke, U. Washington, USA
Bryan Brewer, MedStar Res. Inst., USA
Sotirios Karathanasis, MedImmune, USA
- 6:30pm END DAY 1

Sunday

HDL and immunity

- 8:00am *The lymphatic network: unraveling the role of an underestimated path in cardiovascular disease*

Catherine Martel, Montreal Heart Institute, Canada

8:30am *Apolipoprotein AI enhances regulatory T cell development in steady state and prevents their conversion to T follicular helper cells*

Dalia Gaddis, La Jolla Institute, USA

HDL biogenesis

9:00am *Origins of HDL Heterogeneity*

Michael Phillips, U. Pennsylvania, USA

9:30am *ApoM, sphingosine-1-phosphate, and HDL function*

John Parks, Wake Forest U., USA

10:00am BREAK

HDL structure, composition and function

10:30am *Biological assembly of nascent HDL: What is the driving force and what does ABCA1 have to do with it?*

Jere Segrest, U. Alabama, USA

11:00am *Environmental small RNAs utilize HDL communication networks to control gene expression.*

Kasey Vickers, Vanderbilt U., USA

11:30am *Type 2 Diabetes in Youth-The Effects on HDL Subspecies Composition and Function*

Amy Shah, U. Cincinnati, USA

12:00pm Concluding Remarks – END DAY 2

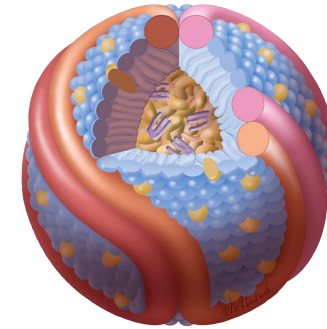
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7th ANNUAL

HW HDL WORKSHOP

Hyatt Regency Minneapolis

Minneapolis, MN

May 6-7, 2017

Chair - Daisy Sahoo

HDL Workshop Organizing Committee

Margery Connelly
W. Sean Davidson
Michael Oda

LabCorp (LipoScience)
University of Cincinnati
Children's Hospital Oakland
Research Institute
Eli Lilly, Inc.
Medical College of Wisconsin
Medical College of Wisconsin
University of Washington

Giacomo Ruotolo
Daisy Sahoo
Mary Sorci-Thomas
Tomas Vaisar

Jack Oram HDL Research Award

Proudly sponsored by:
Dyslipidemia Foundation of Boston

Save the date:
8th Annual HDL Workshop
May 12-13, 2018
San Francisco Hilton
San Francisco, CA

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Gregory Shearer
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Mary Sorci-Thomas
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Hao Xu
Linda Zhang
Jifeng Zhang
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Pacific Biomarkers
Cincinnati Children's Hospital Medical Center
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Cleveland Clinic
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University of Groningen
Vanderbilt University
National Institutes of Health
CSL Behring
Medical College of Wisconsin
Vanderbilt University
University of Michigan
Peking University Third Hospital

HW HDL WORKSHOP

May 6, 2017

| | |
|-------------------|--|
| Rafique Islam | National Heart Lung and Blood Institute |
| David Jacobs | University of Minnesota, School of Public Health |
| Elias Jeyarajah | LabCorp - LipoScience |
| Kavita Jadhav | Northeast Ohio Medical University |
| Xueting Jin | National Institutes of Health |
| Jan Johansson | Artery Therapeutics, Inc. |
| Takhar Kasumov | NEOMED |
| Tomonari Koike | University of Michigan |
| Howard Kruth | NHLBI, NIH |
| Samuel Lee | Columbia University |
| Dan Li | Peking University Third Hospital |
| Yuanyuan Li | NEOMED |
| MacRae Linton | Vanderbilt University |
| Shuhui Lorkowski | Cleveland Clinic |
| Sissel Lund-Katz | University of Pennsylvania |
| Catherine Martel | Montreal Heart Institute |
| Elisa Maruko | Medical College of Wisconsin |
| Anna Mathew | University of Michigan |
| John Melchior | University of Cincinnati |
| Danielle Michell | Vanderbilt University Medical Center |
| Yury Miller | UC San Diego |
| Allyson Morton | Harvard School of Public Health |
| Vas Narayanaswami | California State University Long Beach |
| Edward Neufeld | NHLBI, NIH |
| Michael Oda | CHORI |
| Nathalie Pamir | Oregon Health & Science University |
| Michael Phillips | University of Pennsylvania |
| Sarah Proudfoot | Medical College of Wisconsin |
| Alexander Qian | McMaster University |
| Jayne Raper | City University of New York |
| Yohann Rautureau | Montreal Heart Institute |
| Jon Rees | CDC |
| Alan Remaley | NIH |
| Eric Rhéaume | Montreal Heart Institute |
| Franz Rinninger | University Hospital Hamburg Eppendorf |
| Giacomo Ruotolo | Eli Lilly and Company |
| Kerry-Anne Rye | University of New South Wales |
| Frank Sacks | Harvard Chan School of Public Health |
| Daisy Sahoo | Medical College of Wisconsin |

1:30 pm **Daisy Sahoo** Medical College of Wisconsin
Opening remarks

SESSION 1: HDL FUNCTION

1:35 pm **Kasey Vickers** Vanderbilt University
Argonaute 1 regulates pancreatic beta cell microRNA export to HDL

2:05 pm **John Stafford** Vanderbilt University
Sex-differences in HDL composition and function with obesity

2:35 pm **Yury Miller** UC San Diego
Lipid rafting with AIBP: from vascular biology to neuropathic pain and back

3:05 pm **COFFEE BREAK**

SESSION 2: HDL COMPOSITION AND STRUCTURE

3:30 pm **Frank Sacks** Harvard School of Public Health
HDL speciation in humans: uniqueness, overlap, and effects of diet on their metabolism

4:00 pm **Andy Hoofnagle** University of Washington
Kidney function is associated with changes in HDL composition

4:30 pm **Nathalie Pamir**
Genetics of novel HDL metrics: Function, proteome, and particle concentration

5:00 pm **Sissel Lund-Katz** University of Pennsylvania

JACK ORAM AWARD LECTURE - Molecular basis for differential effects of apoE3 and apoE4 on VLDL and HDL metabolism

5:30 pm **PANEL DISCUSSION**

6:15 pm **END OF DAY 1**

May 7, 2017

2017 Participants

SESSION 3: HDL METABOLISM & EMERGING AREAS

- 8:00 am **Daniel Duprez** University of Minnesota
HDL subclasses and non-cardiovascular, non-cancer chronic inflammatory-related events vs. cardiovascular events
- 8:15 am **Takhar Kasumov** NeoMED
The role of Amadori-glycation in HDL dysfunction and oxidative stress in patients with T2D
- 8:30 am **Rebecca Haeusler** Columbia University
Regulation of HDL-cholesterol metabolism by FoxO transcription factors
- 9:00 am **Elizabeth Tarling** UC Los Angeles
Targeting miRNAs for atheroprotection
- 9:30 am **Xueting Jin**
Cholesterol-enriched macrophages deposit cholesterol microdomains into the extracellular matrix
- 10:00 am **COFFEE BREAK**

SESSION 4: IMPROVING HDL FUNCTION

- 10:30 am **Jean-Claude Tardif** Montreal Heart Institute
Precision HDL medicine
- 11:00 am **Steve Adelman** Vascular Strategies LLC
Functional aspects of HDL
- 11:30 am **Samuel Wright** CSL Behring
CSL 112 as a tool to understand remodeling and HDL functionality
- 12:00 pm **Ernst Schaefer** Tufts University
The two faces of Tangier Disease
- 12:30 pm **Daisy Sahoo** Medical College of Wisconsin
Closing Comments

- Steven Adelman
Kamilah Ali
Ryan Allen
Scott Altmann
Marcelo Amar
Allison Andraski
Debapriya Basu
Enrico Bertaglia
Mark Borja
Emily Button
Giorgio Cavigliolo
Alexandra Chadwick
Kevin Chathely
Anil Chauhan
Heidi Collins
Margery Connelly
Stella Daskalopoulou
Sean Davidson
Frederick de Beer
Maria de Beer
Larry Deckelbaum
David Dichek
Margaret Diffenderfer
Joshua Dubland
Daniel Duprez
Sanam Ebtehaj
Karina Gasbarrino
Shobha Ghosh
Dean Gilham
Andreas Gille
Scott Gordon
Kailash Gulshan
Richard Guthrie
Rebecca Haeusler
Hongliang He
Sean Heffron
Rebecca Schill (Holme)
Andy Hoofnagle
Li-Hao "Paul" Huang
Jiansheng Huang
- VascularStrategies LLC
Touro College of Osteopathic Medicine
Vanderbilt University
HDL Apomics
NHLBI - NIH
Harvard University
NYU Langone Medical Center
Columbia University
Children's Hospital Oakland Research Institute
University of British Columbia
UCSF Benioff Children's Hospital Oakland
University of Pennsylvania
McMaster University
University of Iowa
VascularStrategies, LLC
LabCorp
McGill University
University of Cincinnati
University of Kentucky
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CSL Behring
University of Washington
Tufts University
Centre for Heart Lung Innovation, St. Paul's Hospital
University of Minnesota
University Medical Center Groningen
McGill University
VCU Medical Center
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National Heart, Lung, and Blood Institute
Cleveland Clinic
University of Minnesota Graduate
Columbia University
VCU Medical Center
NYU School of Medicine
Medical College of Wisconsin
University of Washington
Washington University School of Medicine
Vanderbilt University

2018 HDL WORKSHOP
Wednesday May 9th, 2018
Chairs: Catherine Martel, Frank Sacks

8:30am ~~Opening Remarks~~

- **Frank Sacks, MD**, Harvard School of Public Health / Harvard Medical School
- **Catherine Martel, PhD**, Montreal Heart Institute / Université de Montréal

SESSION 1: HDL and the brain

8:35am **Cheryl L. Wellington, PhD**
University of British Columbia
Clearance of β -amyloid

9:05am **Warren L. Lee, M.D, PhD**
University of Toronto
A novel assay to elucidate the mechanisms of HDL transcytosis across the cerebrovascular endothelium

9:35am **Majken Jensen, PhD**
Harvard School of Public Health
Investigations of novel HDL subspecies in CSF and plasma and relations to Alzheimer's pathology

10:05am **Rapid fire talks**
1) Emily Button - *Ultracentrifugation and depletion methods of high-density lipoprotein isolation yield particles that are functionally distinct in some of their vasoprotective functions* (Cheryl Wellington)
2) Sarah Proudfoot - *Working out the kinks of SR-BI-mediated cholesterol transport* (Daisy Sahoo)
3) Joshua Dubland - *Low expression of lysosomal acid lipase in smooth muscle cells provides new insights into foam cell lipid accumulation and removal* (Gordon Francis)

10:25am COFFEE BREAK (15 minutes)

SESSION 2: HDL immune function

10:40am **Mary Sorci-Thomas, PhD**
Medical College of Wisconsin
Lipid Metabolism and Procollagen Endopeptidase Enhancer Protein 2: How Are They Connected?

11:10am **Marit Westerterp, PhD**
University of Groningen

Cholesterol efflux pathways suppress inflammasome activation, NETosis, and atherosclerosis

- 11:40am **Rapid fire talks**
- 1) Ryan Allen - *HDL and LDL trafficking of microbial small RNA - A new paradigm for inflammatory disease* (Kasey Vickers)
 - 2) Yi He - *Impact of Diabetes on HDL Size and Function in Humans* (Jay Heinecke)
 - 3) Paul Huang - *Interleukin 17-driven trapping of tissue lipoproteins links immunity to cardiovascular risk in murine psoriasis* (Gwen Randolph)

JACK ORAM RESEARCH AWARD

12:00pm Presentation to **Trudy Forte, PhD**
Lecture

12:30pm LUNCH BREAK

SESSION 3: Therapeutics

1:30pm **Philip Barter, MBBS, PhD**
University of New South Wales
CETP biology and treatment

2:00pm **Jean-Louis Dasseux, PhD, MBA**
Cerenis Therapeutics
HDL nanoparticle treatment for cancer

2:30pm **Daniel J. Rader, MD**
University of Pennsylvania
Approach to target discovery in the HDL system

3:00pm **Rapid fire talks**

- 1) Rafique Islam - *Structure-function study of apolipoprotein mimetic peptides for enhancing ABCA1 transporter mediated cholesterol efflux* (Alan Remaley)
- 2) Allison Andraski - *Effects of dietary unsaturated fat and carbohydrate on HDL protein composition and metabolism in humans* (Frank Sacks)
- 3) Jiancheng Huang - *Scavenging reactive aldehydes with 5'-O-pentyl-pyridoxamine (PPM) improves HDL function and reduces atherosclerosis in Ldlr deficient mice* (Macrae Linton)

3:20pm COFFEE BREAK (15 minutes)

SESSION 4: HDL structure-function relations

3:35pm **Tomas Vaisar, PhD**
University of Washington

HDL structure-function relations

4:05pm

Sean Davidson, PhD

University of Cincinnati College of Medicine

Apolipoprotein A-I: a structured platform for mediating HDL function

4:35pm

ROUND TABLE/PANEL DISCUSSION

HDL Function Measurement (biological and clinical implications)

- **Daisy Sahoo, PhD*** (Medical College of Wisconsin)
- **Michael Oda, PhD*** (Children's Hospital Oakland Research Institute)
- **Frank Sacks, MD*** (Harvard School of Public Health)
- **Dan Rader, MD** (University of Pennsylvania)
- **Kerry-Anne Rye, PhD** (University of New South Wales)

**organizing committee*

5:15pm

Closing Statements– ADJOURNED

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Chairs:
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Annabelle Rodriguez-Oquendo

HDL WORKSHOP ORGANIZING COMMITTEE



**Catherine
Martel**



**Annabelle
Rodriguez-Oquendo**



**Frank
Sacks**



**Daisy
Sahoo**



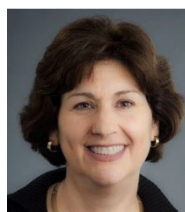
**Margery
Connelly**



**Michael
Oda**



**Sean
Davidson**



**Mary
Sorci-Thomas**



**Tomas
Vaisar**



**Giacomo
Ruotolo**

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Sarah
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Kerry-Anne
Frank
Daisy
Mark

**Rinninger
Rohatgi
Rohrer
Ronsein
Ruotolo
Rye
Sacks
Sahoo
Sarzynski**

John
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Laura
Jifeng
Angela

**Wilkins
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Smaani
Smith
Sorokin
Stafford
Sviridov
Tang
Tannock
Tavori
Tricoci
Tsujiata
Vaisar
VanderLaan**

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| Baiba | Gillard | Nathalie | Pamir |
| Scott | Gordon | Jyoti | Pant |
| | | Michael | Phillips |

SCHEDULE

Thursday May 16, 2019

1:00pm Opening Remarks
Catherine Martel, PhD
Annabelle Rodriguez-Oquendo, MD

SESSION 1: HDL & the vasculature

1:05pm **Bernardo Trigatti, Ph.D.,** McMaster University, Ontario
Effect of HDL on vascular function

1:35pm **Chieko Mineo, Ph.D.,** UT Southwestern Medical Center
SR-B1 and atherosclerosis: a new paradigm for an old story

2:05pm **Catherine Martel, Ph.D.,** Montreal Heart Institute
Extracellular vesicles at the Heart of Lymphatic function in RCT

2:35pm Rapid fire talk (8 + 2 min)

3:55pm COFFEE BREAK (15 min)

SESSION 2: HDL structural complexity in health and disease

3:10pm **John T Wilkins, M.D.,** Northwestern University, Chicago
Associations Between Apolipoprotein A-I Proteoforms and HDL Efflux Capacity

3:40pm **Daisy Sahoo, Ph.D.,** Medical College of Wisconsin
The importance of HDL clearance: Lessons from Dr. Jekyll and Mr. Hyde

4:10pm **Bela Asztalos**, Ph.D., Tufts University, Boston
Analyses on HDL Composition and Function

SESSION 3: Clinical perspectives on HDL measurement

4:40pm Patient's perspective

4:55pm Experts' opinion
Samia Mora, M.D., Brigham and Women's Hospital
Marina Cuchel, M.D., Ph.D., UPenn

5:25pm Discussion

5:45pm – 7:00pm **POSTER SESSION / WINE & CHEESE RECEPTION**

Friday May 17, 2019

SESSION 4: HDL in autoimmune and infectious disease

8:00am **Srinivasa T. Reddy**, Ph.D., UCLA Molecular Biology Institute
HDL function in Cancer

8:30am **Pascal Bernatchez**, Ph.D., UBC
HDL, LDL and muscular dystrophy

9:00am **Rapid fire talk** (8 + 2 min)

9:10am **Jack Oram Research Award**
Sponsored by the Dyslipidemia Foundation of Boston

10:00am COFFEE BREAK (15 min)

SESSION 5: Microbiota and HDL metabolism

10:15am **Rapid fire talk** (8 + 2 min)

10:25am **Gregory C. Shearer**, Ph.D., Pennsylvania State University
Eicosapentaenoate and other polyunsaturated fatty acids in HDL function

10:55am **Angela Zivkovic**, Ph.D., UC Davis, California
Effects of Prolonged Fasting on Microbiome and HDL

11:25am **Uwe J.F. Tietge**, M.D., Ph.D., University Medical Center, The Netherlands
Impact of intestinal microbiota on Reverse Cholesterol Transport

11:55am Closing Statements– ADJOURNED

10th HDL Workshop Seattle, WA

May 14, 2022

Chairs: Annabelle Rodriguez-Oquendo, Kasey Vickers

Date: May 14, 2022

2022 Program agenda: 15 minute oral presentations followed by 10 min Q&A

1:00-1:05PM: Opening Remarks & Welcome: Kasey Vickers, PhD

Session One:

- 1:05-1:30PM **Kerry-Anne Rye, PhD** (University New South Wales, Australia)
HDL: The New Frontier in Diabetes
- 1:30-1:55PM **Laura Woollett, PhD** (University of Cincinnati)
Impact of pregnancy on HDL subspecies concentrations and compositions
- 1:55-2:20PM **Preetha Shridas, PhD** (University of Kentucky)
Serum Amyloid A - a double-edged sword
- 2:20-2:45PM **Alan Remaley, MD, PhD** (National Institutes of Health, NHLBI)
Cell-free HDL-specific phospholipid efflux assay predicts incident cardiovascular disease better than HDL-C
- 2:45-3:10PM **Frank Sacks, MD** (T.H. Chan Harvard School of Public Health)
Dietary effects on the metabolism of protein-defined HDL subspecies

Break #1 Coffee & Posters

3:10-3:40PM

Session Two:

- 3:40-4:05PM **Birgit Plochberger, PhD** (University of Applied Sciences, Austria)
Watching Lipoprotein particle interaction at the nanoscopic level
- 4:05-4:30PM **Anna Schwendeman, PhD** (University of Michigan, College of Pharmacy)
Synthetic HDL nanodiscs for drug and antigen delivery.
- 4:30-4:55PM **Andreas Lacko, PhD** (University of North Texas Health Science Center)
HDL-based therapeutic nano vehicles. Bench to bedside?
- 4:55-5:20PM **Colby S. Thaxton, MD, PhD** (Northwestern Medicine)
The Form and Function of Synthetic HDL-Like Particles

Break #2 Coffee & Posters

5:20-5:55PM

Keynote: Jack Oram Research Award

- 6:00-6:05PM Introduction: **Tomas Vaisar, PhD** (University of Washington)
- 6:05-6:55PM **Alan Chait, MD** (University of Washington)

Reception: Wine & Posters:

7:00-9:00PM

Poster presentations

Poster 1: Ailing Ji, University of Kentucky, *Deficiency of Serum Amyloid A Exacerbates Sepsis-induced Acute Lung Injury in Mice*

Poster 2: Danielle Michell, Vanderbilt University Medical Center, *Physico-chemical principles of HDL-small RNA binding interactions*

Poster 3: Hayley Powers, Medical College of Wisconsin, *Into the Wormhole: Understanding SR-B1's Cholesterol Transport Functions through Structural Studies*

Poster 4: Jayne Raper, Hunter College CUNY, *Apolipoproteins that form cytotoxic cation channels*

Poster 5: Darcy Knaack, Medical College of Wisconsin, *Investigating the Roles of SR-BI and PCPE2 in Regulation of Adipocyte Metabolic Homeostasis*

Poster 6: Holly Sucharski, The Ohio State University, *Imatinib promotes reverse cholesterol transport and elevates SR-BI*

Poster 7: Mark Castleberry, Vanderbilt University Medical Center, *High-density Lipoproteins Mediate Bidirectional Flux of Extracellular Small RNAs in Macrophages*

Poster 8: Yi He, University of Washington, *Apolipoprotein A-I rotamers determine the size and cholesterol efflux capacity of HDL*

Poster 9: Mandana Pahlvani, UT Southwestern Medical Center, *Extreme low cholesterol efflux is linked more strongly to worse anti-oxidative function than with systemic inflammation*

Poster 10: Anamika Gangwar, UT Southwestern Medical Center, *HDL containing specific proteins blunts the association with cholesterol efflux capacity: Observations from the Dallas Heart Study*

Poster 11: Maki Tsujita, Nagoya City University, Japan, *Modification of lipoprotein metabolic equilibrium in mice plasma by Japanese WAON thermotherapy*

Poster 12: Matthew Glittenberg, University of Minnesota, *Proteomics analysis identified associations of complement and coagulation proteins in fractionated HDL with greater brain volumes and less Alzheimer's disease pathology in older adults*

Poster 13: Noemie Clouet-Foraison, University of Washington, *How does type 2 diabetes alter High-Density-Lipoproteins?*

Poster 14: Mark Sarzynski, University of South Carolina, *Association between cholesterol efflux capacity and HDL-sized and whole plasma proteins in the HERITAGE Family Study*

Poster 15: Graziella Ronsein, University of Sao Paulo Brasil, *Robust quantification of HDL proteome for mechanistic and clinical studies*

Poster 16: Sara Fresard, Hunter College CUNY, *Trypanosome Lytic Factor 3: A unique pre-beta high density lipoprotein with a role in innate immunity to African Trypanosomes*

Poster 17: Brad Wacker, University of Washington, *GFP-tagging of rabbit ApoAI decreases expression and cholesterol-efflux activity*

Organizing committee members:

- Annabelle Rodriguez-Oquendo MD, University of Connecticut
- Kasey C. Vickers, PhD., Vanderbilt School of Medicine
- W. Sean Davidson, PhD., University of Cincinnati
- Mary Sorci-Thomas, PhD, Medical College of Wisconsin
- Tomas Vaisar, PhD, University of Washington
- Frank Sacks, MD, T.H. Chan Harvard School of Public Health
- Catherine Martel, PhD, University of Montreal
- Daisy Sahoo, PhD, Medical College of Wisconsin
- Michael Oda PhD, Children's Hospital Oakland Research Institute
- Margery Connelly PhD, LabCorp
- Giacomo Ruotolo, MD, Eli Lilly & Co

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HDL WORKSHOP

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2023 HDL Workshop - Infection and Neurodegenerative Diseases Agenda

Co-Hosted by Dr. Anna Schwendeman and Dr. Anand Rohatgi

Marriott Copley Place Hotel

Boston, MA

May 13-14, 2023

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.

Day 1: May 13, 2023

- 1:30 PM–1:35 PM **Welcome and Introduction**
- Anna Schwendeman, PhD* (Professor Pharmaceutical Sciences, University of Michigan)
Co-Chair
- Anand Rohatgi, MD, MSCS, FACC, FAHA* (Professor of Medicine, Internal Medicine, Division of Cardiology, University of Texas Southwestern Medical Center)
Co-Chair
- 1:35 PM–2:10 PM **The Role of CETP and HDL in Sepsis**
- Liam Brunham, M.D., Ph.D., F.R.C.P.C., F.A.C.P., F.N.L.A.* (Associate Professor and Canada Research Chair, University of British Columbia and Medical Lead, Healthy Heart Program Prevention Clinic, St. Paul's Hospital)
- 2:10 PM–2:45 PM **The Crosstalk Between HIV and HDL**
- Theodoros Kelesidis, MD, PhD* (Associate Professor Of Medicine, University of California, Los Angeles)
- 2:45 PM–3:00 PM **Early Career Abstract Presentation: Novel Human Variants of SR-B1 Impact HDL-Cholesterol Clearance**
- Hayley Powers, PhD* (Graduate Student Research Assistant and MSTP Student, Medical College of Wisconsin)
- 3:00 PM–3:15 PM **Early Career Abstract Presentation: Fluorescent Lipoprotein Profiling Reveals Unique Lipoproteins Populations In Human Bronchoalveolar Lavage Fluid**
- Snigdha Sarkar, PhD* (Postdoctoral Researcher, Pacific Northwest National Laboratory)
- 3:15 PM–3:30 PM *Coffee Break*
- 3:30 PM–4:05 PM **Exploring the Potential Non-Cardiovascular Benefits of CETP Inhibition**
- Michael Davidson, MD* (CEO, NewAmsterdam Pharma & Professor of Medicine, Director of the Lipid Clinic, University of Chicago Pritzker School of Medicine)
- 4:05 PM–4:40 PM **Enhancement of HDL functionality by Raydel Policosanol and Anti-Inflammatory Peptide CIGB-258**
- Kyung-Hyun Cho, PhD* (Head, Raydel Research Institute)
- 4:40 PM–5:10 PM **HDL and SARS-COV19**
- Nicolas Vuilleumier, PhD* (Associate Professor, Head of Laboratory Medicine Division, Geneva)



5:10 PM–5:45 PM **Jack Oram Award Winner and Keynote Lecturer**
Kerry-Anne Rye, PhD (Deputy Head of Research, School of Biomedical Sciences, University of New South Wales)

5:45 PM–8:00 PM **Poster Presentations and Happy Hour**

Day 2: May 14, 2023

8:00 AM–8:30 AM **HDL Metabolism in Health and Disease - Lessons from HDL Particle Analysis**
Ernst Schaefer, MD (Professor and Chief Medical Officer, Tufts University and Lab Director, Boston Heart Diagnostics)

8:30 AM–9:05 AM **HDL and Brain Lipid Metabolism in Alzheimer's Disease**
Francesca Zimetti, PhD Associate Professor of Pharmacology, University of Parma, Italy)

9:05 AM–9:40 AM **HDL, ApoA-I/II and Neuroprotection in Multiple Sclerosis**
Ramanathan Murali, PhD (Professor of Pharmaceutical Sciences and Neurology, University of Buffalo, the State College of New York)

9:40 AM–9:55 AM **Early Career Abstract Presentation: Novel Application of DAD-MALS-DLS-dRI Detectors for HDL Particle Analysis Following UC-SEC Separation to Measure Size, Composition, Particle Count, and dn/dc Values of HDL Particle Subtypes**
Joanne Agus, BS (PhD Candidate, Zivkovic Lab, University of California, Davis)

9:55 AM–10:10 AM **Early Career Abstract Presentation: Proteomic Characterization of Human Brain Lipoproteins Speciated by Size Exclusion Chromatography**
Nathaniel Merrill, PhD (Postdoctoral Fellow, Pacific Northwest National Laboratory)

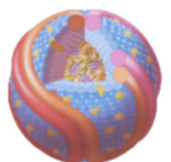
10:15AM–10:35 AM *Coffee Break*

10:35 AM–11:10 AM **HDL Function and Composition in Alzheimer's by ApoE Genotype**
Angela Zivkovic, PhD (Associate Professor, Department of Nutrition, University of California, Davis)

11:10 AM–11:45 AM **Update on Clinical Development and Mechanism of Action of CSL112**
Svetlana Diditchenko, PhD (Principal Scientist, CSL Behring)

11:45 AM–12:00 PM **Closing Remarks and Feedback**
Anna Schwendeman, PhD (Professor Pharmaceutical Sciences, University of Michigan)
Co-Chair

Anand Rohatgi, MD, MSCS, FACC, FAHA (Professor of Medicine, Internal Medicine, Division of Cardiology, University of Texas Southwestern Medical Center)
Co-Chair



Poster Submissions

- **Apolipoprotein E-Containing HDL Enhance Survival of Effector Memory Regulatory T Lymphocytes by Regulating Caspase-Dependent Apoptosis**
Laura Atehortua Castro, MS (PhD Candidate, University of Cincinnati College of Medicine, Cincinnati Children's Hospital Medical Center)
- **Interaction of Amyloid Beta Peptide With Human Cerebrospinal Fluid Lipoproteins**
Ivo Diaz Ludovico, PhD (Post-Doctoral Research Associate, Integrative Omics, Pacific Northwest National Laboratory)
- **Structure Function Analysis of Guinea Pig and Human Apolipoprotein E to Obtain Insight into their Role in Cardiovascular Disease**
George Celis, BS (MS Graduate student, Biochemistry, California State University Long Beach)
- **HDL Apolipoproteomic Score, Cardiometabolic Risk, and Exercise Training**
Mark Sarzynski, PhD (Associate Professor, University of South Carolina)
- **FFAR4 Regulates Macrophage Metabolism and Foam Cell Formation**
Gage Stuttgen, BS (Graduate Student, Medical College of Wisconsin)
- **Short-Term Whole Grain Rice Diet Triggered Plasma HTGL Reduction and Increased HDL-C in Healthy Volunteers**
Maki Tsujita, PhD, FAHA (Associate Professor, Nagoya City University Graduate School of Medicine)

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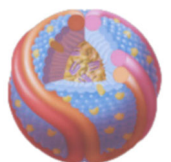
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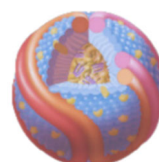
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Abstracts & Bios:



NOTES:



The HDL Workshop

Exploring the Biology and Clinical Utility of High Density Lipoproteins

2024 HDL Workshop

Exploring the Biology and Clinical Utility of High Density Lipoproteins

Co-Hosted by Dr. Anna Schwendeman and Dr. Anand Rohatgi

Hilton Chicago Hotel

Chicago, IL

May 18-19, 2024

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 CST.

Day 1: HDL Structure/Function – Saturday, May 18, 2024

1:30 PM–1:35 PM **Welcome and Introduction**

Anna Schwendeman, PhD (Hans W. Vahlteich Professor, Pharmaceutical Sciences, University of Michigan)

Co-Chair

1:35 PM–2:10 PM **Apolipoprotein A-I, A Combination Lock that Dictates HDL Maturation**

Sean Davidson (Professor and Vice Chair for Research, Department of Pathology and Laboratory Medicine, University of Cincinnati)

2:10 PM–2:45 PM **Enhancement of HDL-Associated Elastase Inhibitor Activity Prevents Atherosclerosis Progression**

Scott Gordon, PhD (Assistant Professor, Saha Cardiovascular Research Center, Department of Physiology, University of Kentucky College of Medicine)

2:45 PM–3:00 PM **Early Career Talk: ApoE Adopts an Antiparallel Dimer in Discoidal Lipoproteins**

Michael Strickland, PhD (Postdoctoral Research Associate, Dr. Gwendalyn J. Randolph Laboratory, Department of Pathology and Immunology, University of Washington, Saint Louis)

3:00 PM–3:15 PM **Early Career Talk: Understanding the Biogenesis of Trypanosome Lytic Factor, a Unique HDL that Lyses African Trypanosome Parasites**

Sara Fresard, BS (PhD Candidate, Jayne Raper Lab, Hunter College and the Graduate Center, City University of New York)

3:15 PM–3:30 PM *Coffee Break*

- 3:30 PM–4:05 PM **Cuban Policosanol Increases Cholesterol Efflux Capacity as High-Density Lipoprotein Functionality in Healthy Japanese Volunteers**
Yoshinari Uehara, MD, PhD (Professor and Dean, Graduate School of Sports and Health Science, Fukuoka University and Department of Cardiology, Fukuoka University Hospital)
- 4:05 PM–4:40 PM **ApoA-1 and ApoA-II Proteoform Structure and Function**
John Wilkins, MD (Associate Professor of Medicine (Cardiology) and Preventative Medicine (Epidemiology), Northwestern University)
- 4:40 PM–5:15 PM **Mechanisms of ABCA1 lipid translocation and interaction with APOA-I**
Stephen (Steve) Aller, PhD (Associate Professor, Department of Pharmacology & Toxicology, University of Alabama at Birmingham)
- 5:15 PM – 5:30 PM **Early Career Talk: Correlations of Lipid Species in HDL-Sized and Whole Plasma Measured by Mass Spectrometry**
Eric Leszczynski, PhD (Postdoctoral Fellow, University of South Carolina)
- 5:30 PM–6:05 PM **Jack Oram Award Winner and Keynote Lecturer**
Ana Jonas, Ph.D. (Professor Emerita of Biochemistry, College of Medicine and School of Molecular and Cellular Biology, University of Illinois at Urbana-Champaign)
- 6:05 PM–8:00 PM **Poster Presentations and Happy Hour**

Day 2: Neurodegenerative Disease – Sunday, May 19, 2024

- 7:30 AM–8:30 AM *Breakfast*
- 8:30 AM–9:05 AM **Lipoprotein Metabolism and Alzheimer's Disease**
Cheryl Wellington, PhD (Professor & Vice Chair of Research for the Department of Pathology and Laboratory Medicine, Djavad Mowafaghian Center for Brain Health, University of British Columbia)
- 9:05 AM–9:40 AM **Apolipoprotein A-I in the Brain**
Maki Tsujita, PhD (Junior Associate Professor, Graduate School of Medical Sciences, Nagoya City University)
- 9:40 AM–10:15 AM **Development of a Recombinant, Optimized Apolipoprotein E as a Potential Therapeutic for Alzheimer's Disease**
Emily Ricq, PhD (Co-Founder, VP Discovery Biology, Kisbee Therapeutics)
- 10:15 AM–10:45 AM *Coffee Break*
- 10:45 AM–11:45 AM **Effects of ApoA-I (CSL112) Infusion Post AMI - Mechanistic Perspectives**
Bronwyn Kingwell, PhD, FAICD, FAHMS (Executive Director, Research Portfolio Strategy Lead, Research Therapeutic Area Lead (Cardiovascular and Metabolic), CSL Limited)
- 11:45 AM–12:00 PM **Closing Remarks**
Anand Rohatgi, MD, MSCS, FACC, FAHA (Professor of Medicine, Internal Medicine, Division of Cardiology, University of Texas Southwestern Medical Center)
Co-Chair

Poster Submissions

- **Investigating the Role of Lipoproteins in Macrophage ER Stress**
Jordan Bobek, BS (PhD Candidate, Biochemistry, Medical College of Wisconsin)
- **Inhibition of Lecithin Cholesterol acyl Transferase by a Novel Anti-Apolipoprotein A1 Antibody Fragment**
Tabitha Cady, BS (Lab Technician, Sean Davidson Lab, Department of Molecular and Cellular Biosciences, College of Medicine, University of Cincinnati)
- **Co-Encapsulated LXR Agonist and mRNA to Treat Impaired Cholesterol Efflux**
Julia Catalano, BS (PhD Student, Pharmaceutical Sciences, Dr. Anna Schwendeman lab, University of Michigan)
- **Structural Basis of Apolipoprotein A1 Activation of Lecithin: Cholesterol Acyl Transferase in High Density Lipoproteins**
Bethany Coleman, BS, (PhD Student Sean Davidson Lab, Department of Molecular and Cellular Biosciences, College of Medicine, University of Cincinnati)
- **Apolipoprotein A-I Proteoforms, Cardiometabolic Health, and Coronary Heart Disease: Observations from the Dallas Heart Study**
Anamika Gangwar, PhD (Postdoctoral Researcher, Department of Internal Medicine-Cardiology, UT Southwestern Medical Center, Dallas, TX)
- **Molecular Docking Workflow for Discovering Potentiators for the Lipid Translocase ABCA1**
John Hayden Hill, BS (Graduate Researcher, Department of Pharmacology and Toxicology, University of Alabama at Birmingham)
- **Lipoprotein Particle Distribution and Function in Female Participants is Affected by Age and Dementia Diagnosis**
Brian V. Hong, Joanne K. Agus, Susan Lei, Angela M. Zivkovic
- **In vitro Modeling of the Effects of Impaired HDL on Atherogenesis in Long COVID Syndrome**
Theodoros Kelesidis, MD, PhD (Associate Professor, University of Texas Southwestern Medical Center, Department of Medicine, Division of Infectious Diseases)
- **Atherosclerosis, Lymphatic System, Inflammation, Cholesterol, Apolipoprotein A-I, Extracellular Vesicles**
Elizabeth LaCroix, BS (PhD Student, Montreal Heart Institute)
- **Tagging Apolipoprotein L-1 in its native state on specialized HDL, Trypanosome Lytic Factor**
Kayla Leiss, BA (Laboratory Technician, Jayne Raper Lab, Hunter College CUNY)
- **Structural and Biochemical Characterization of ABCA1 Interactions**
Cole Martin, BS, MS (Ph.D. Candidate, Department of Pharmacology and Toxicology, University of Alabama at Birmingham)
- **Pioglitazone Improves Apolipoprotein A1-Associated Proteomic Composition More Than Weight Loss in Insulin Resistance**
Shyon Parsa, MD, BS (Internal Medical Resident, Department of Internal Medicine and Stanford Cardiovascular Institute, Stanford University Hospital)
- **Apolipoprotein A-I Structural Constraints for Interaction with ABCA1**
Brady Robinson (Undergraduate Neuroscience Student, Department of Pharmacology and Toxicology, University of Alabama at Birmingham)
- **DMPC sHDL Nanodiscs Modulatory Effects on Platelet Function is Mediated by Receptor Binding**
Antonela Rodriguez, BS (PhD Candidate, Department of Pharmaceutical Science, University of Michigan)
- **Conformational Dynamics of ABCA1 Dimerization**
Hyun Deok Song, PhD (Basic Scientist Assistant I, Division of Cardiovascular Medicine, Vanderbilt University Medical Center (VUMC))

- **HDL Cholesterol Confers Exceptional Cardioprotective Benefits in Native Hawaiians and Pacific Islanders**
Austin Szatrowski (Undergraduate Researcher, Department of Medicine, Institute for Genomics & Systems Biology, The University of Chicago & Department of BioHealth Informatics, Luddy School of Informatics, Computing & Engineering Indiana University)
- **A Photoconvertible Tool to Track Dynamics of Apolipoprotein A1 at the Cerebrovascular Interface in Cerebral Amyloid Angiopathy**
Kevin Telfer, BS (PhD Candidate, Washington University School of Medicine)
- **Förster Resonance Energy Transfer Analysis of Synthetic High-Density Lipoprotein Nanodiscs**
Minzhi Yu, PhD (Research Fellow, Department of Pharmaceutical Sciences, Dr. Anna Schwendeman Lab, University of Michigan)

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Abstracts & Bios:



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:

The HDL Workshop

Exploring the Biology and Clinical Utility of High Density Lipoproteins

2026 HDL Workshop Exploring the Biology and Clinical Utility of High-Density Lipoproteins

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

Hyatt Regency Bellevue
Evergreen Ballroom (G,H,I)
Bellevue, WA
May 16, 2026

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 PST.

Session 1: HDL and the Brain

12:00 PM–12:25 PM **Lunch**

12:25 PM–12:30 PM **Welcome, and Introduction**

Marit Westertep and/or Scott Gordon (Co-Chairs)

12:30 PM–1:15 PM **Keynote Lecture**

“HDL and the Brain”

Cheryl Wellington, PhD (Professor, University of British Columbia)

1:15 PM–1:30 PM

“Nanodiscs with Embedded Acid Sphingomyelinase for Potential Enzyme Replacement Therapy to Treat Niemann-Pick Disease”

Vasanthi Narayanaswami, PhD (Professor, California State University Long Beach)

1:30 PM–1:45 PM

“Triglycerides in Small HDL and Incident Dementia in Older Adults”

Danni Li, PhD (Associate Professor, University of Minnesota Twin Cities)

Session 2: Structure and Function of HDL

1:45 PM–2:15 PM

“When HDL Fights Back: Exchangeable ApoA-I Disrupts LDL-Proteoglycan Binding”

Amy Shah, MD (Professor, Cincinnati Children’s Hospital)

2:15 PM–2:30 PM

“The Role of the HDL Phospholipidome: Does Structural Composition Dictate Function and Disease?”

Rafael Zubiran, MD (Postdoc, National Heart, Lung, and Blood Institute)

2:30 PM–2:35 PM “Nanobodies for HDL Subspecies Differentiation”
Samantha Powell, PhD (Chemist, Pacific Northwest National Laboratory)

2:35 PM–3:00 PM **Coffee Break**

3:00 PM–3:15 PM “PIP2 regulates in vitro and in vivo nascent HDL biogenesis”
Swati Sharma, PhD (Postdoc, Cleveland State University)

Session 3: HDL, Inflammation, and Immunity

3:15 PM–3:45 PM “CETP is a Critical Regulator of HDL During Sepsis”
Liam Brunham, MD PhD (Associate Professor, University of British Columbia)

3:45 PM–4:15 PM “Lymph node stromal cell production of apolipoprotein E promotes immune responses during intestinal infection”
Katie Poholek, MD PhD (Assistant Professor, University of Pittsburgh)

4:15 PM–4:45 PM “HDL/SR-BI Beyond Cholesterol and Cardiovascular Disease: A Central Regulator of Stress Response in Host Defense”
Xiangang Li, PhD (Professor, University of Kentucky)

4:45 PM–5:10 PM **Short Break**

Session 4: Jack Oram Award Session

5:10 PM–5:15 PM Introduction to Jack Oram Award Lecture
Mary Sorci-Thomas (Professor, Medical College of Wisconsin)

5:15 PM–6:00 PM **Jack Oram Award Lecture**
“Reflections on a career: Serendipity meets talent and discovery”
Nancy Webb, PhD (Professor Emeritus, University of Kentucky)

Session 5: Posters and Lite Dinner

6:00 PM–8:30 PM **Poster Presentations and Happy Hour**

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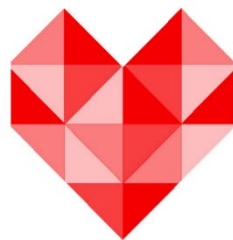
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The Dyslipidemia Foundation of Boston

Posters:

1. "Are circulating carotenoids novel biomarkers for HDL function?"
 - Jaume Amengual, University of Illinois Urbana-Champaign
2. "HDL-Associated Proteins Bind HDL via Protein-Protein Interactions with ApoA1 and ApoA2"
 - Ryan P. Barney, University of Kentucky
3. "Triglycerides in small HDL and incident dementia in older adults"
 - Li Danni, University of Minnesota Twin Cities
4. "Overexpression of SAA in the liver impairs plasma and hepatic lipid metabolism and promotes liver fibrosis in apolipoprotein E-deficient mice"
 - Ailing Ji, University of Kentucky
5. "Additive Association of Apolipoprotein L1 Risk Genotype With Circulating Apolipoprotein L1 Protein Levels in African American Adults"
 - Gregory Vorobiev, University of California San Francisco
6. "Biophysical characterization of Lipid-Bound Apolipoprotein E using cryo-EM and chemical crosslinking"
 - Chinemerem P. Ogbu, Pacific Northwest National Laboratory
7. "PIP2 induced nanotube formation regulates HDL metabolism"
 - Ashutosh Prince, Cleveland State University
8. "HDL-C and delirium after cardiac surgery"
 - Loren E. Smith, University of Iowa Carver College of Medicine
9. "Screening and repurposing FDA-approved drugs for blocking inflammasome activity and improving HDL function"
 - Kara Timinski, Cleveland State University
10. "Abca1 null mice abolished adult neurogenesis at the hippocampal dentate gyrus"
 - Maki Tsujita, Nagoya City University Graduate School of Medical Sciences
11. "RNA-to-Protein Cross-Linking based Mass Spectrometry Reveals RNA Binding Domain on Apolipoprotein A-I"
 - Kasey C. Vickers, Vanderbilt University Medical Center
12. "Characterization of Brain Lipoproteins in Interstitial Fluid from Mice with Neuroinflammation"
 - Rowan S. Woolridge, Pacific Northwest National Laboratory
13. "Identification of Scavenger Receptor BI as a Scavenger of Free Heme That Is Essential for Protection Against Pathological Hemolysis"
 - Jimmy Xue, University of Kentucky
14. "Nanobodies for HDL Subspecies Differentiation"
 - Samantha Powell, Pacific Northwest National Laboratory

NOTES: