



European Lipoprotein Club

47th Annual Scientific Meeting

September 9-12, 2024

Evangelische Akademie

Tutzing, Germany

Monday September 9

12:00 – 13:30 **Arrival, registration, & lunch**

13:30 - 14:00 **Welcome address** *Alexander Bartelt, Munich, Germany*

Session A: Lipids and Beyond

Chairperson: Pirkka-Pekka Laurila, Helsinki, Finland

14:00 - 14:30 **Invited speaker 1: Prof. Tony Futerman, Rehovot/Tel Aviv, Israel**
Sphingolipid complexity – what does it mean?

14:30 - 14:45 **1. Adam Majcher, Zurich, Switzerland***
Diabetic sarcopenia causes elevation of neurotoxic 1-
eoxysphingolipids via increased Alanine to Serine ratio

14:45 - 15:00 **2. Thorsten Hornemann, Zurich, Switzerland**
Deoxy(DH)Ceramide with very long chain acyls (24:0/24:1) are
specific mediators of neurotoxicity

15:00 - 15:15 **3. Anna Jung, Munich, Germany***
The novel adaptor protein Shb controls insulin receptor trafficking
and degradation

15:15 - 17:00 **Coffee, Cake, and Posters I (No. 1-12)**

Session B: Fatty Liver Disease

Chairperson: Leanne Hodson, Oxford, United Kingdom

17:00 - 17:15 **4. Carmen Paredes-Yubero, Munich, Germany***
A Proteomic Atlas of MASH

17:15 - 17:30 **5. Laurent Martinez, Toulouse, France**
Pre-Clinical Assessment of a Novel Therapeutic class Targeting
F1-ATPase for the treatment of metabolic dysfunction-associated
steatotic liver disease (MASLD)

17:30 - 17:45 **6. Maider Apodaka Biguri, Leioa, Spain***
The E2F2 target glycerophosphodiester phosphodiesterase
domain containing 3 (GDPD3) is involved in metabolic
dysfunction-associated steatotic liver disease progression to
hepatocellular carcinoma and related dyslipidemias

17:45 – 18:00 **7. Margarita Schratte, Graz, Austria***
Understanding the molecular mechanism of ichthyosis
pathogenesis in Chanarin-Dorfman syndrome

18:00 – 19:00 **Dinner**

**Eligible for Young Investigator Oral Award*

19:00 – 20:00

Keynote Lecture

Chairperson: Alexander Bartelt, Munich, Germany

Prof Bart Staels, Lille, France

Nuclear receptors and cardiometabolic disease

20:00 – 24:00

Bar open

Tuesday September 10

07:30 - 08:30 **Breakfast**

Session C: Adipose and Metabolic Health

Chairperson: Wilfried Le Goff, Paris, France

08:30 - 09:00 **Invited speaker 2: Prof. Camilla Scheele, Copenhagen, Denmark**
Human adipose heterogeneity

- 09:00 - 09:15 **8. Dominique Guerrini, Paris, France***
Exploring the involvement of macrophagic phosphatidylethanolamine in obesity-associated meta-inflammation
- 09:15 - 09:30 **9. Vasiliki Karagiannakou, Munich, Germany***
Adhesion GPCR GPR116/Adgrf5 controls a lineage of anti-thermogenic adipocytes and it is an essential factor for adaptive thermogenesis during prolonged cold exposure
- 09:30 - 09:45 **10. Anastasia Georgiadi, Munich, Germany**
Investigating the role of adipocyte expressed A disintegrin and metalloprotease 17 (ADAM17) in energy expenditure and metabolic health.
- 09:45 - 10:00 **11. Sarah Brunner, Munich, Germany***
The mitochondrial phospholipid to cholesterol ratio regulates ucp1 activity in brown adipose tissue

10:00 - 11:15 **Coffee, Cake and Posters II (No. 13-21)**

Session C: continued

Chairperson: Núria Amigó, Reus, Spain

- 11:15 - 11:30 **12. Ludger Scheja, Hamburg, Germany**
Compensatory metabolic responses in ChREBP-deficient brown adipose tissue
- 11:30 - 11:45 **13. Peter Stenzel, Hamburg, Germany***
Translational Insights into Vascular Endothelial Cells: Unveiling its Cold and Postprandial Adaptations
- 11:45 - 12:00 **14. Theresa Auer, Munich, Germany***
Tspan18 regulates calcium signaling and preadipocyte expansion during adipogenesis
- 12:00 - 12:15 **15. Alba Mena Gómez, Munich, Germany***
Lipid droplet biogenesis blocks lipid peroxidation and cell death in adipocytes
- 12:15 - 12:30 **16. Min Mao, Munich, Germany***
Proteasome activity regulates adipogenesis and lipid metabolism via beta-catenin

12:30 - 13:30 **Lunch**
13:30 - 16:00 **Networking (OC Meeting)**

Session D: Dyslipidemia and Lipid Synthesis

Chairperson: Fabrizia Bonacina, Milan, Italy

16:00 - 16:30 **Invited speaker 3: Prof. Oliver Söhnlein, Münster, Germany**
Neutrophils in Cardiometabolic Health

- 16:30 – 16:45 **17. Antoine Rimbart, Nantes, France**
Genetic screening of extreme dyslipidemia: time to read “between the lines”?
- 16:45 - 17:00 **18. Evangelia Zvintzou, Bucharest, Romania**
The functional interaction of apolipoprotein a2 with the metabolic system of apolipoprotein e -rich -lipoproteins in the regulation of the lipid profile
- 17:00 - 17:15 **19. Anni Kumari, Copenhagen, Denmark***
ANGPTL3/8 is an atypical unfoldase that regulates intravascular lipolysis by catalyzing LPL inhibition
- 17:15 - 17:30 **20. Mathilde Varret, Paris, France**
The singular French PCSK9-p.Ser127Arg gain-of-function variant: a significant player in cholesterol levels from a 775-year-old common ancestor
- 17:30 – 17:45 **21. Rachele Niccolai, Amsterdam, Netherlands**
Targeting Cholesterol Biosynthesis sensitizes Diffuse Large B Cell Lymphoma non-responsive to EZH2 inhibition
- 17:45 – 18:00 **22. Sebastian Hendrix, Amsterdam, The Netherlands**
Structural basis for spring-mediated maturation of site-one protease and regulation of SREBP-dependent lipogenesis

18:00 - 19:30 **Dinner**

19:30 – 21:30 **Wine & Posters III (No. 22-36)**

21:30 – 24:00 **Bar open**

**Eligible for Young Investigator Oral Award*

Wednesday September 11

07:30 - 08:30

Breakfast

Session:

Session E: Atherosclerosis

Chairperson: Noam Zelcer, Amsterdam, The Netherlands

08:30 - 09:00

Invited speaker 4: Prof. Katey Rayner, Ottawa, Canada
Cell death, miRNAs, and atherosclerosis

09:00 - 09:15

23. Debby Koonen, Groningen, The Netherlands

A human-like bile acid pool composition attenuates atherogenesis in female hypercholesterolaemic LDLR^{-/-} mice

09:15 - 09:30

24. Jamie van der Vaart, Leiden, The Netherlands*

Pharmacological induction of mitochondrial uncoupling outside brown adipose tissue attenuates atherosclerosis development in APOE^{*3}-Leiden.CETP mice

09:30 - 09:45

25. Cedric Le May, Nantes, France

The E97G Gain-of-function variant of hepatic lipase protects LDLR-deficient and APOE^{*3}-Leiden.CETP mice from dyslipidemia and atherosclerosis.

09:45 - 10:00

26. George Shakir, Munich, Germany*

Global cannabinoid receptor 1 deficiency promotes myelopoiesis in a mouse model of atherosclerosis

10:00 - 10:15

27. Stefan Nilsson, Umeå, Sweden (sponsor)

Novel treatments targeting LPL pathway in cardiometabolic disease

10:15 - 10:45

Coffee break

Session F: The Biology of Apolipoproteins

Chairperson: Bart van de Sluis, Groningen, The Netherlands

10:45 - 11:00

28. Amber Meurs, Amsterdam, The Netherlands*

Genome-engineered hepatic cells to provide novel insights into the spatiotemporal metabolism of ApoB and ApoB-containing lipoprotein secretion

11:00 - 11:15

29. Floris Feiner, Groningen, The Netherlands*

ApoB Dynamics: A Study Using a Novel Flag Epitope Tag Knock-In ApoB Mouse Model and HepG2-APOBmNeon

11:15 - 11:30

30. McKenna Feites, Baltimore, MD, USA

Shedding light on the dark-yolk phenotype: Identifying novel regulators of ApoB-containing lipoproteins metabolism using forward genetics in zebrafish

- 11:30 - 11:45 **31. Cristy Verzijl, Groningen, The Netherlands***
Creating the protein interactome of Apolipoprotein B using a novel mouse model
- 11:45 - 12:00 **32. Sofia Kakava, Zurich, Switzerland***
Apolipoprotein E Defines High-density Lipoprotein Trafficking in brain endothelial cells
- 12:00 - 12:15 **33. Karin Kornmueller, Graz, Austria**
Structural resolution vs. dynamics: Low-density Lipoprotein explored by an integrative structural biology approach

12:15 - 13:30 **Lunch**

Session G: The EAS Young Fellows & Energy Expenditure

Chairperson: Renate Schreiber, Graz, Austria

- 13:30 - 14:00 **EAS Young Fellow**
Pelin Golforoush, London, UK
A new approach to targeting PI3Kinase for cardio- & neuroprotection
- 14:00 - 14:30 **EAS Young Fellow**
Azin Kheirhah, Innsbruck, Austria
PCSK9: cardiovascular insights from genetics to epidemiology
- 14:30 - 14:45 **34. Leonardo Matta, Munich, Germany***
Activation of skeletal myocyte Nfe2l1 mediates adaptive exercise performance
- 14:45 - 15:00 **35. Imke Lemmer, Munich, Germany***
Nfe2l1-mediated proteasome function controls skeletal muscle energy metabolism expenditure in obesity
- 15:00 - 15:15 **36. Lukas Blaas, Munich, Germany***
ATF3 links cellular proteostasis and mitochondrial function in adipocytes

15:15 - 16:00

General Assembly

Chairpersons: Alexander Bartelt, Nicola Ferri, & Anne Tybjærg-Hansen

17:00 - 23:00 **Social event & Young Investigator Awards**

23:00 - late **Bar open**

Thursday September 12

07:30 - 09:30 **Breakfast**

09:30 - 12:00 **Departure**

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Oral presenters eligible for YIA

Adam Majcher, Zurich, Switzerland (1)
Anna Jung, Munich, Germany (3)
Carmen Paredes-Yubero, Munich, Germany (4)
Maider Apodaka Biguri, Leioa, Spain (6)
Margarita Schratte, Graz, Austria (7)
Dominique Guerrini, Paris, France (8)
Vasiliki Karagiannakou, Munich, Germany (9)
Sarah Brunner, Munich, Germany (11)
Peter Stenzel, Hamburg, Germany (13)
Theresa Auer, Munich, Germany (14)
Alba Mena Gómez, Munich, Germany (15)
Min Mao, Munich, Germany (16)
Anni Kumari, Copenhagen, Denmark (19)
Jamie van der Vaart, Leiden, Netherlands (24)
George Shakir, Munich, Germany (26)
Amber Meurs, Amsterdam, Netherlands (28)
Floris Feiner, Groningen, Netherlands (29)
Cristy Verzijl, Groningen, Netherlands (31)
Sofia Kakava, Zurich, Switzerland (32)
Leonardo Matta, Munich, Germany (34)
Imke Lemmer, Munich, Germany (35)
Lukas Blaas, Munich, Germany (36)

Poster Session 1

1. Ilaria Rossi, Padova, Italy*
Gene Silencing of Angiopoietin-like 3 (ANGPTL3) Induced De Novo Lipogenesis and Lipid Accumulation in Huh7 Cell Line
2. Ottavia Terenghi, Milan, Italy*
Angiopoietin-like 3 (ANGPTL3) deficiency promotes metabolic substrate rerouting under chow and high-fat diet
3. Klevis Ndoj, Amsterdam, Netherlands*
Identification of novel regulators of Niemann pick1 (NPC1) protein and lysosomal cholesterol egress
4. Zichun Cai, Toulouse, France*
In-vitro pharmacology assessment of a candidate compound activating Ecto-F1-ATPase for the treatment of hepatic steatosis
5. Sara De Martin, Padova, Italy
The serotonergic agonist psilocybin as a therapeutic agent for MASLD
6. Dinah Remo, Paris, France*
Export of hepatic ceramides prevents lipid toxicity and MASH
7. Joel Guerra, Munich, Germany*
Modulating TGF-beta signaling through PMEPA1: Implications for lipid metabolism and hepatic inflammation in MASH
8. Anja Zeigerer, Mannheim, Germany
Induction of steatosis in primary human hepatocytes recapitulates pathophysiology of metabolic dysfunction-associated steatotic liver disease
9. Ilaria Micallo, Amsterdam, Netherlands*
SPRING is a dedicated licensing factor for SREBP-specific activation by S1P
10. Maria Giovanna Lupo, Padova, Italy*
LDLr cell membrane availability is modulated by carbamoyl phosphate synthase 1, a mitochondrial enzyme of the urea cycle: in vitro studies on human hepatoma cells.
11. Giorgia Marodin, Padova, Italy*
Modulation of LDL receptor by siRNA anti-PCSK9: in vitro synergistic effect with simvastatin
12. Lauri Äikäs, Helsinki, Finland*
Icosapent ethyl -supplementation in healthy individuals improves plasma and lipoprotein lipid profiles and reduces cardiovascular disease risk markers

**Eligible for Young Investigator Poster Award*

Poster Session 2

13. Evelina Voloviceva, Zurich, Switzerland*
Apolipoprotein E particle composition defines its functions
14. Jan Albert Kuivenhoven, Groningen, Netherlands
SMLR1 is a novel player in chylomicron metabolism
15. Kim Hurkmans, Hamburg, Germany*
Role of CD36 expressed by brown adipocytes in adaptive thermogenesis and lipid disposal
16. Dave McGrath, Hamburg, Germany*
Lysosomal Cholesterol Trafficking is Essential for Brown Adipocyte Differentiation
17. Christoph Gibis, Munich, Germany*
Discovery of new putative BATokines and their endocrine roles
18. Markus Heine, Hamburg, Germany
Adaptation of cholesterol synthesis in liver and brown adipose tissues of cold-activated mice
19. Diamela Paez, Munich, Germany
Role of the small Maf proteins in adipogenesis
20. Ram Kumar, Tiruchirappalli, India
The metabolic dynamics of adipose tissue during the estrous cycle in rodent model
21. Elvira Weber, Düsseldorf, Germany
Unravelling Adipose Tissue Heterogeneity in Heart Health: Insights from Regional Proteomic Variations in Human Heart Transplant Samples

**Eligible for Young Investigator Poster Award*

Poster Session 3

22. Maëlle Jan, Paris, France*
Exploring novel genetic determinants of autosomal dominant hypercholesterolemia through Next-Generation Sequencing and functional analysis of LIPA variants
23. Arianna Moretti, Milan, Italy*
The sterol element binding protein 1c (SREBP1c) controls oxidative metabolism and suppressive function of regulatory t cells
24. Menno Hoekstra, Leiden, Netherlands
Recombinant human proteoglycan 4 lowers inflammation and atherosclerosis susceptibility in female low-density lipoprotein receptor knockout mice
25. Sander Kooijman, Leiden, Netherlands
Genetically-influenced HDL concentration, composition and modulation and the risk of sepsis: a Mendelian Randomization Study
26. Martina Lorey, Helsinki, Finland
Extracellular lipoproteins isolated from carotid endarterectomy samples activate different pathways in human macrophages than native and in-vitro modified LDL and VLDL
27. Grzegorz Procyk, Warsaw, Poland*
Lipoprotein(a) as a potential predictor of long-term survival after TAVI
28. Alina Jakubovskaia, Helsinki, Finland*
Expression and characterization of modified recombinant human acid sphingomyelinase variants for LDL aggregation assay
29. Clara Rossi, Milan, Italy*
Low-dose simvastatin improves senescence-induced mitochondrial dysfunction in vascular smooth muscle cells
30. Jennifer Härdfeldt, Stockholm, Sweden*
Deciphering Interstitial Fluid in Atherosclerosis through Comprehensive Analyses of Biomarkers and Atherogenic Pathways
31. Sara Mohiti, Copenhagen, Denmark*
Association of serum tryptophan and kynurenine levels with heart failure among patients with chronic kidney disease
32. Katja Michler, Copenhagen, Denmark*
Effects of dha-nat on postprandial serum triglyceride levels in healthy, young males: a randomised, double-blind, placebo-controlled, crossover study
33. Anni Niemelä, Helsinki, Finland*
Intensive periodontal treatment reduces serum-induced activation of macrophages

34. Krishnakumar Pillai, Cochin, India
Novel FH mutations and the polygenic landscape in south Indian patients
35. Kevin Jon Williams, Philadelphia, USA
Divergence in estimated risks and actual rates of atherosclerotic cardiovascular events and their management in a longitudinal cohort of dermatomyositis patients with skin involvement
36. Lobke Zijlstra, Amsterdam, Netherlands*
Untangling the inflammatory responses of liver x receptor (LXR) activation in human macrophages

**Eligible for Young Investigator Poster Award*

Poster presenters eligible for YIA

Ilaria Rossi, Padova, Italy (1)
Ottavia Terenghi, Milan, Italy (2)
Klevis Ndoj, Amsterdam, Netherlands (3)
Zichun Cai, Toulouse, France (4)
Dinah Remo, Paris, France (6)
Joel Guerra, Munich, Germany (7)
Ilaria Micallo, Amsterdam, Netherlands (9)
Maria Giovanna Lupo, Padova, Italy (10)
Giorgia Marodin, Padova, Italy (11)
Lauri Äikäs, Helsinki, Finland (12)
Evelina Voloviceva, Zurich, Switzerland (13)
Kim Hurkmans, Hamburg, Germany (15)
Dave McGrath, Hamburg, Germany (16)
Christoph Gibis, Munich, Germany (17)
Maëlle Jan, Paris, France (22)
Arianna Moretti, Milan, Italy (23)
Grzegorz Procyk, Warsaw, Poland (27)
Alina Iakubovskaia, Helsinki, Finland (28)
Clara Rossi, Milan, Italy (29)
Jennifer Härdfeldt, Stockholm, Sweden (30)
Sara Mohiti, Copenhagen, Denmark (31)
Katja Michler, Copenhagen, Denmark (32)
Anni Niemelä, Helsinki, Finland (33)
Lobke Zijlstra, Amsterdam, Netherlands (36)

The ELC Organizing Committee

Chairman

Alexander Bartelt, Munich, Germany

Treasurer

Nicola Ferri, Padova, Italy

Committee members

Núria Amigó, Reus, Spain

Fabrizia Bonacina, Milan, Italy

Leanne Hodson, Oxford, United Kingdom

Pirkka-Pekka Laurila, Helsinki, Finland

Wilfried Le Goff, Paris, France

Jeanine Roeters van Lennep Rotterdam, The Netherlands

Renate Schreiber, Graz, Austria

Bart van de Sluis, Groningen, The Netherlands

Noam Zelcer, Amsterdam, The Netherlands

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