

29th ANNUAL MEETING - AAS

**of the
Austrian Atherosclerosis Society**



**May 13 – 14, 2022
St. Gilgen / Wolfgangsee**

www.aas.at

Organisationskomitee:

Christoph J. Binder
Herbert Stangl

Programmkomitee:

Stefan Coassin
Renate Schreiber
Dimitris Tsiantoulas

Veranstaltungsort:

Seehotel Billroth (Untergeschoss)
Billrothstraße 2, 5340 St. Gilgen

Anmeldung:

Ärztzentrale med.info
Helferstorferstraße 2, P.O. Box 155, 1011 Wien
Tel.: +43-1-531 16-37
E-mail: azmedinfo@media.co.at

Hotel:

Seehotel Billroth
Billrothstraße 2, 5340 St. Gilgen
Tel.: +43-6227-2217
Web: www.billroth.at

Fachausstellung:

Medizinische Ausstellungs- und Werbegesellschaft
Freyung 6, 1010 Wien
Tel.: +43-1-536 63-37
E-mail: maw@media.co.at
Web: www.maw.co.at

AAS – Gesellschaftssekretariat:

AAS – Austrian Atherosclerosis Society
c/o MAW
ZVR-Zahl: 179890279
Kontakt: Frau Katrin Doppler
Freyung 6, 1010 Wien
Tel.: +43/1-536 63-37
E-Mail: aas@media.co.at,
Web: www.aas.at

Online-Anmeldung: <https://registration.maw.co.at/aas2022>

Sehr geehrte Damen und Herren, liebe Kolleginnen und Kollegen!

Im Namen des Organisations- und Programmkomitees dürfen wir Sie herzlich zur 29. Jahrestagung der Österreichischen Atherosklerose Gesellschaft (AAS) vom 13. bis 14. Mai 2022 einladen. Nach zwei Jahren in denen wir uns nur „virtuell treffen“ konnten, haben wir heuer endlich wieder die Möglichkeit unsere Jahrestagung als Präsenzveranstaltung an unserem traditionellen Tagungsort im schönen St. Gilgen abzuhalten.

Der Themenbogen spannt sich von der Rolle des zellulären Cholesterinstoffwechsels in der Immunologie (Marit Westerterp, Groningen, NL), über neue Funktionen von PCSK9 (Danilo Norata, Mailand, IT), bis hin zu systembiologischen Ansätzen (Manuel Mayr, London, UK & Wien) und neuen therapeutische Möglichkeiten (Kausik Ray, London, UK) bei atherosklerotischen Herz-Kreislaufkrankungen. Ein weiteres besonderes Highlight wird ein Vortrag von Wolfgang Schneider (Wien) über die Geschichte der Erforschung des LDL Rezeptors und seiner Funktion sein. Präsentationen wissenschaftlicher Ergebnisse aus den Arbeitsgruppen der Kongressteilnehmer werden ebenfalls einen wesentlichen Teil des Programms einnehmen.

Für die Veranstaltung wurden 10 DFP-Punkte beantragt.

Wir wünschen Ihnen eine interessante Tagung.

Dear colleagues and friends!

On behalf of the organizing and program committee, we cordially invite you to the 29th Annual Meeting of the of the Austrian Atherosclerosis Society (AAS) on May 13 and 14, 2022. After two years in which we could only meet "virtually", this year we will finally have the opportunity to hold our annual meeting again as a face-to-face event at our traditional conference venue in beautiful St. Gilgen.

The topics range from the role of cellular cholesterol metabolism in immunology (Marit Westerterp, Groningen, NL), new functions of PCSK9 (Danilo Norata, Milan, IT), to systems biology approaches (Manuel Mayr, London, UK & Vienna) and new therapeutic options (Kausik Ray, London, UK) in atherosclerotic cardiovascular diseases. Another special highlight will be a lecture by Wolfgang Schneider (Vienna, Austria) on the history of research on the LDL receptor and its function. As always, presentations of scientific results from congress participants will form an essential part of the program.

10 DFP points have been registered for this event.

We are looking forward to an interesting meeting.



Univ.-Prof. Dr. Christoph Binder
Präsident der AAS



ao. Univ.-Prof. Dr. Herbert Stangl
Sekretär der AAS

Für Kongressorganisation und Betreuung vor Ort ist wie in den vergangenen Jahren die Firma MAW verantwortlich.

Die Jahrestagung findet wieder im Raum Wolfgangsee statt. Der Zugang zu den Seminarräumlichkeiten im Untergeschoss erfolgt über das Stiegenhaus gegenüber der Rezeption.

Für Mitglieder der AAS wird ein Unkostenbeitrag von 30 € eingehoben; die Tagungsgebühr für Nichtmitglieder beträgt 60 €. Die jährliche AAS Mitgliedsgebühr beträgt 30 € (ordentliches Mitglied) bzw. 15 € (studentisches Mitglied).

Wir bitten Sie, den Unkostenbeitrag & Ihre Mitgliedsgebühr vor Ort an der Registratur zu begleichen. Bitte um Beachtung, dass die Bezahlung nur in bar möglich ist.

Die Kosten für die Nächtigung vom 13. auf den 14. Mai sowie Essen und Getränke werden für Abstract-Präsentatoren und AAS Mitglieder von der AAS getragen; Telefon, Minibar und weitere Konsumation werden individuell verrechnet. Bitte beachten Sie, dass die Checkout-Zeit im Hotel Billroth am Samstag um 11 Uhr ist.

Poster: bitte um Demontage Ihres Posters bis 13 Uhr am Samstag, den 14. Mai 2022. Andernfalls wird Ihr Poster entsorgt.

Our partner MAW is again in charge for the congress organisation and on-site support.

Our congress will be hold in the room “Wolfgangsee” (lower level), which can be accessed via the staircase opposite the reception desk.

We kindly ask you to pay on-site your contribution towards expenses (AAS members € 30,-, non-members € 60,-). The annual AAS membership fee should also be paid on-site please (regular member € 30,-, students € 15,-).

Both fees should be paid on-site at the registration desk, please note that only cash payments can be accepted.

For all AAS members and abstract presenters the AAS bears the costs for the accommodation from May 13-14, 2022, all coffee & lunch breaks and the society evening on Friday (further costs like Telefon, Mini-Bar or other consumptions have to be paid individually). Please mind the hotel check-out time: 11 am.

Posters: please remove your poster until 1 pm on Saturday, May 14, 2022. Otherwise your poster will be disposed of.

10:00 - 10:05	Welcome Address by the AAS President Christoph J. Binder
10:05 - 11:50	Session 1: Methodological approaches to study cardiovascular disease Chairs: Andreas Ritsch and Johannes Schmid
10:05 - 10:50	Keynote Lecture 1 Manuel Mayr King's British Heart Foundation Centre School of Cardiovascular Medicine & Science King's College, London, United Kingdom <i>Multomics Approaches for Systems Biology in Human Cardiovascular Disease</i>
10:50 - 11:50	Short Talks 1-4 (10 min. talk + 5 min. discussion) Can Gollmann-Tepeköylü Medical University of Innsbruck, Austria <i>Specific isoforms of extracellular matrix protein activate innate immunity and initiate calcific aortic valve disease</i> Johannes Gollmer Medical University of Graz, Austria <i>Transcriptomic and proteomic profiling of human diabetic heart disease</i> Swasti Rawal Medical University of Graz, Austria <i>Low Density Lipoprotein (LDL) particle organization determined by cryo-electron microscopy (cryo-EM)</i> Egon Demetz Medical University of Innsbruck, Austria <i>A novel compound to activate the hepatic LDL receptor</i>
11:50 - 13:30	Lunch & Exhibition

13:30 - 15:15	Session 2: Spotlight on the immune system in atherosclerosis Chairs: Andreas Zirlik and Ruth Prassl
13:30 - 14:15	Keynote Lecture 2 Marit Westerterp University Medical Center Groningen, Laboratory of Pediatrics, Groningen, The Netherlands <i>Role of T-cell cholesterol efflux pathways in aging and atherosclerosis</i>
14:15 - 15:15	Short Talks 5-8 (10 min. talk + 5 min. discussion) Anna S. Ondracek Medical University of Vienna, Austria <i>Natural IgM recognizing oxidation-specific epitopes attenuates NETosis induced by extracellular vesicles</i> Manuel Salzmann Medical University of Vienna, Austria <i>Inhibition of ICAM-1 with extracellular adherence protein (EAP) reduces innate immune cell phenotype in developing but not in established atherosclerotic lesions</i> Justine Deroissart Medical University of Vienna, Austria <i>Impact of dyslipidemia on the IgM repertoire and its consequences on atherosclerosis development</i> Melina Amor Medical University of Graz, Austria <i>MMP12: A potential new target for cardiometabolic diseases</i>
15:15 - 15:45	Coffee break & Exhibition

15:45 - 16:50 **Session 3: The past, the present, and the future**
Chair: Christoph Binder

15:45 - 16:30 **Perspective Lecture**

Wolfgang Schneider

Max F. Perutz Laboratories, Vienna, Austria

The LDL Receptor (Hi)story

16:30 - 16:40 **Progress Report**

Reinhold Innerhofer

Medical University of Vienna, Austria

Austrian familial hypercholesterolaemia registry

16:40 - 16:50 **Best Paper Presentation**

16:50 - 19:00 **Poster Session**

Please find an index of the shown posters on page 8.

19:30 **Dinner and AAS social evening**

08:30 - 10:15 **Session 4: Risk-factors, epidemiology, and biomarkers**
Chairs: Florian Kronenberg and Susanne Greber-Platzer

08:30 - 09:15 **Keynote Lecture 3**

Kausik Ray
Department of Primary Care and Public Health,
Imperial Clinical Trials Unit, London, United Kingdom
Population health: New tools but the same old problems

09:15 - 10:15 **Short Talks 9-12 (10 min. talk + 5 min. discussion)**

Ivan Vosko
Medical University of Graz, Austria
Unsaturated ceramides as independent predictor for cardiovascular mortality in diabetic and non-diabetic subjects with coronary artery disease

Julia Lischka
Medical University of Vienna, Austria
Premature cardiovascular disease in pediatric homozygous familial hypercholesterolemia

Claudia Lamina
Medical University of Innsbruck, Austria
The combined effect of polygenic risk scores and family history on the risk of stroke, myocardial infarction, and Diabetes

Silvia Di Maio
Medical University of Innsbruck, Austria
The impact of lipoprotein(a) on ischemic heart disease and thromboembolic events during Sars-CoV-2 infections

10:15 - 10:30 **Break & Exhibition**

10:30 - 12:15 **Session 5: Lipid diversity in health and disease**
Chairs: Dagmar Kratky and Gerit-Holger Schernthaner

10:30 - 11:15 **Keynote Lecture 4**

Danilo Norata

University of Milan, Department of Pharmacological and Biomolecular Sciences (DiSFeB), Milan, Italy

PCSK9 beyond the liver: from pancreatic function to mitochondria metabolism in the heart

11:15 - 12:15 **Short Talks 13-16 (10 min. talk + 5 min. discussion)**

Isabella Pototschnig

Medical University of Graz, Austria

Mechanisms of adipose tissue atrophy in cancer cachexia

Petra Lujza Szabo

Medical University of Vienna, Austria

Ivabradine rescues vascular abnormalities in a mouse model of muscular dystrophy

Carina Wagner

Medical University of Graz, Austria

KIAA1363 affects retinyl ester turnover in cultured murine and human hepatic stellate cells

Isabella Reinisch

Medical University of Graz, Austria

p53 shapes adipose tissue plasticity upon intermittent fasting in obese mice

12:15 - 13:00 **Awards - sponsored by Novo Nordisk
& Daiichi-Sankyo
Closing Remarks**



AAS General Assembly (members only)

13:00 - 14:00 **Lunch**

The following posters will be shown:

- 1 Viktoria Juhasz**, MU Vienna
The role of APRIL in myocardial infarction
- 2 Marion Mussbacher**, MU Vienna
A mouse model of arterial EC-specific inflammation reveals multifactorial endothelial dysfunction and upregulation of ACE4
- 3 Attila Kiss**, MU Vienna
Neuregulin-1 β improves uremic cardiomyopathy and renal function in rats
- 4 Yelina Manandhar**, University of Graz
Mice deficient of adipocyte specific ATGL and HSL are cold tolerant
- 5 Melanie Korbelius**, MU Graz
Intestinal ATGL overexpression affects systemic HDL levels
- 6 Johannes Schwaiger**, MU Innsbruck
Apolipoprotein A-IV concentrations and clinical outcomes in a large chronic kidney disease cohort: results from the GCKD study
- 7 Andreas Leiherer**, Feldkirch
Comparison Of Two Recent Ceramide-based Coronary Risk Prediction Scores: CERT And CERT-2
- 8 Eleonora Nardini**, MU Vienna
Endothelial senescence as driver of proatherogenic changes in progeria
- 9 Thomas Rauchenwald**, University of Graz
Whole mount tissue imaging and quantitative assessment of sympathetic innervation in mouse white adipose tissue
- 10 Ivan Bradic**, MU Graz
Off-target effects of the lysosomal acid lipase inhibitors Lalistat-1 and Lalistat-2 on neutral lipid hydrolases
- 11 Valentina Bianco**, MU Graz
Consequences of (intestinal) LAL deficiency on whole body lipid metabolism
- 12 Katharina Küntzel**, MU Graz
Dysregulated lipid hydrolases in gestational diabetes mellitus
- 13 Lucia Zisser**, MU Vienna
Mitophagy as a target to modulate the release of vasculo-inflammatory extracellular vesicles
- 14 Waltraud Schrottmaier**, MU Vienna
Bacterial outer membrane vesicles modulate platelet function

- 15 Thomas Koller**, MU Vienna
The role of collagen carrying oxidation specific epitopes in atherothrombosis following plaqu rapture
- 16 Bernhard Zierfuss**, MU Vienna
HDL particle subclasses in statin treated patients with peripheral artery disease predict long-term survival
- 17 Azin Kheirkhah**, MU Innsbruck
Statin treatment and prevalent CVD influence the association between PCSK9 and incident CVD in patients with moderately decreased kidney function- GCKD study
- 18 Lisa Seekircher**, MU Innsbruck
Intima-media thickness at the near or far wall of the common-carotid-artery in cardiovascular risk assessment
- 19 Moritz Ferch**, MU Vienna
PCSK9 inhibitors in real life - cardiometabolic risk management in dyslipidemic patients in Vienna
- 20 Lena Tschiderer**, MU Innsbruck
Breastfeeding is associated with a reduced maternal cardiovascular risk: Systematic review and meta-analysis involving data from 8 studies and 1,192,700 parous women
- 21 Clemens Röhrl**, University of Applied Sciences, Upper Austria
Screening of natural plant-derived extracts to target atherosclerosis: Lingonberry and blackberry extracts beneficially affect lipoprotein metabolism
- 22 Lore Schrutka**, MU Vienna
Plasma eicosanoid profiling in the course of proprotein convertase subtilisin-kexin type 9 inhibition: insights from a metabolomic analysis
- 23 Margarita Schratte**, University of Graz
Distinct roles of triacylglycerol estolides in mammalian metabolism
- 24 Sabrina Rohringer**, MU Vienna
Identification of mechanisms involved in the early healing phase of different vascular graft materials
- 25 Nikolina Papac-Milicevic**, MU Vienna
Enzymatic activity of phospholipase A2 G16 facilitates adipocyte maturation and promotes obesity development
- 26 Florentina Porsch**, MU Vienna
Non-alcoholic steatohepatitis is reflected by levels of systemic soluble TREM2 and limited by the recruitment of TREM2-positive macrophages to areas of lipid-induced tissue damage

