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**AVAILABLE ON QR CODES**

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- Browse the list of speakers, their biographies and which sessions they will be presenting in
- Create your personalized agenda for easy conference attendance
- Visit the exhibitor sessions
- Receive the latest news

87TH EAS CONGRESS
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Dear Friends & Colleagues,

On behalf of the European Atherosclerosis Society (EAS) and the Dutch Atherosclerosis Society we are delighted to welcome you to the Netherlands, and to the charming and historic city of Maastricht and the 87th EAS Congress.

The EAS 2019 Maastricht Congress programme, both scientific and social, provides the international scientific community opportunities for high-level interdisciplinary exchange, as leaders in clinical and basic science come together from around the world to explore the latest top research into the mechanisms, diagnosis and treatment of atherosclerosis and related vascular disease. Be inspired by the award-winning Anitschkow Lecture, the outstanding Keynote lecture, by state-of-the-art Plenary sessions, and focused Workshops and Advanced Clinical Seminars.

We firmly believe that the personal meeting – presenting and discussing one’s work with others, and sparking ideas from others’ work – is the key to progress in science. Make your contribution to the discussion by taking part in the Science at a Glance sessions and viewing the Posters.

Young Investigator Fellowships are an important EAS initiative offering early-career scientists the chance to take part in the Congress, to learn through presenting their own research, attending the scientific programme, and getting to know others in the field. Congratulations to all attending EAS 2019 on a Fellowship – we encourage you to make the most of this opportunity to progress your career.

On behalf of the organising committees we wish you a successful Congress. May you gain new friends, new ideas, and return home inspired to take your studies of atherosclerosis and related vascular disease to new levels.

Welcome and enjoy!

Lale Tokgözoglu
EAS President

Erik Biessen
Congress Chair

Erik Stroes
Congress Chair

Alberico L. Catapano
Chair, Scientific Programme Committee
ABOUT EAS

THE EUROPEAN ATHEROSCLEROSIS SOCIETY

The European Atherosclerosis Society (EAS) was founded in 1964 with the aim of “advancing and exchanging knowledge concerning the causes, natural history, treatment and prevention of atherosclerotic disease”.

EAS contributes to the development of knowledge in the field with guidelines and Consensus position papers. By offering to our members access to educational events and materials, and opportunities to take part in Congress and courses, we provide a forum in which new developments can be discussed, and, ultimately, to the improved treatment of persons with cardiovascular disease and lipid disorders.

In recent years the Society has made particular efforts to develop activities supporting young scientists. We collaborate with societies also from other related disciplines, and with national atherosclerosis societies, where we have common goals.

WHAT WE DO – AT A GLANCE

The European Atherosclerosis Society’s goal is to provide a framework for concerted scientific and clinical discussion of new developments in basic research, diagnosis and therapy of atherosclerosis.

- EAS is active in the publication of Guidelines and Consensus Position Papers, and its official Journals are Atherosclerosis and Atherosclerosis.
- The Society's educational programme comprises Advanced Courses for both basic scientists and clinicians, and annual Congress.
- EAS Academy is the Society’s online e-Learning resource, containing a range of educational material and self-teaching programmes.
- EAS is co-organiser of the European Lipoprotein Club (ELC) annual scientific meeting
- EAS-Familial Hypercholesterolaemia Studies Collaboration (EAS-FHSC), formed in 2015, is generating robust information in a global registry to accurately and reliably investigate the burden of both homozygous and heterozygous FH, how FH is detected and managed, and the clinical consequences of current practices on delivery of care and outcomes.
EAS MEMBERSHIP

WHY SHOULD I BECOME AN EAS MEMBER?
CONTINUE YOUR PROFESSIONAL DEVELOPMENT WITH EAS EDUCATIONAL ACTIVITIES - ADVANCED COURSES & EAS ACADEMY
EAS membership offers opportunities to deepen your theoretical skills and/or practical knowledge, which you can then apply in your own research or clinical practice. The Society organises educational activities such as Advanced Courses (many CME accredited), and offers a wealth of online learning material, such as webcasts, videos and quizzes, on the Society’s educational platform, EAS Academy. As an EAS member, you have access to the very latest uploaded material, EAS Academy’s Premium content.

STAY WELL INFORMED WITH EAS PUBLICATIONS
EAS membership makes it easier for those working in the field to stay abreast of the latest developments in the field. In addition to access to the Society’s own publications of Consensus position papers and Guidelines, EAS membership includes complimentary access to Atherosclerosis Journals (worth ca. 300 €), and members receive by email newsletters and featured commentaries on topical issues.

INTERACT WITH LEADING EXPERTS IN THE FIELD AT EAS CONGRESS
The participants at EAS annual Congress are world leaders in atherosclerosis research and clinical practice, and the size and format of the Congress lends itself to networking and interaction. EAS members are encouraged to submit their findings as an abstract to Congress, where they can participate at significantly reduced registration fee (savings of at least 100 € compared to non-member fees).

APPLY FOR GRANTS AND PRIZES AS AN EAS MEMBER
EAS individual members may apply for the Society’s travel grants to attend Congress, and, where eligible, may apply for the Society’s Prizes.

GREAT VALUE MEMBERSHIP BENEFITS AT AFFORDABLE ANNUAL SUBSCRIPTION RATES
EAS’ aim is to provide access to learning that will help our members to manage lipid disorders and to prevent and treat atherosclerosis. We keep our annual membership subscription rates low - 40 € (persons over 35) or 20 € (persons 35 or younger) – so that as many as possible can afford to become members.

HOW TO BECOME AN EAS MEMBER
If you’re not an EAS member and would like to become one, you should complete the application form on the Society website and pay the annual subscription fee. Register at the Society web or visit us in the EAS booth in the Congress exhibition area. www.eas-society.org.
COMMITTEES

CONGRESS CHAIRS
Erik Biessen, Maastricht, The Netherlands
Erik Stroes, Amsterdam, The Netherlands

EAS EXECUTIVE COMMITTEE
Lale Tokgózoğlu, Turkey, President
Jan Borén, Sweden, Vice-President
Paolo Parini, Sweden, Treasurer
Alberico L. Catapano, Italy, Past President
Arnold von Eckardstein, Switzerland, Secretary
Christoph Binder, Austria
Ruth Frikke-Schmidt, Denmark
Kausik Ray, United Kingdom
Alexandros Tselepis, Greece

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Marja-Riitta Taskinen, Finland, Chair
Giuseppe Danilo Norata, Italy, Co-chair
Jan Borén, Sweden
Sanni Söderlund, Finland

SCIENTIFIC PROGRAMME COMMITTEE
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Erik S. Stroes, The Netherlands, Co-Chair
Christoph Binder, Austria
Ruth Frikke-Schmidt, Denmark
Ian Graham, Ireland
Kornelia Kotseva, United Kingdom
Giuseppe Danilo Norata, Italy
Emilio Ros, Spain
Marja-Riitta Taskinen, Finland
Lale Tokgózoğlu, Turkey
Laurent Yvan-Charvet, France

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Jacqueline De Graaf, Nijmegen
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Jan-Albert Kuivenhoven, Groningen
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Gerhard Pasterkamp, Utrecht
Patrick C.N. Rensen, Leiden
Albert Sewell, Rotterdam
Patrick A.J. Schrauwen, Maastricht
Leon J. Schurgers, Maastricht
Ton van der Steen, Rotterdam

APPRECIATION & THANKS
We would like to thank the reviewers of the submitted abstracts for their valuable help and assistance.
FACULTY LIST

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Arca Marcello, Italy
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Banach Maciej, Poland
Bax Jeroen, The Netherlands
Bennett Martin, UK
Biessen Erik, The Netherlands
Binder Christoph, Austria
Borén Jan, Sweden
Caligiuri Giuseppina, France
Camici Giovanni G., Switzerland
Cariou Bertrand, France
Carmeliet Peter, Belgium
Catapano Alberico L., Italy
Chapman John, France
Collet Xavier, France
Dallinga-Thie Geesje M., The Netherlands
de Backer Guy, Belgium
de Kleijn Dominique, The Netherlands
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Ference Brian, UK
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Witztum JL, USA
Yvan-Charvet Laurent, France
Zambon Albert, Italy
Zelcer Noam, The Netherlands
Zirlik Andreas, Germany
GOOD TO KNOW

VENUE
MECC Maastricht Convention Center
Forum 100
6229 GV Maastricht
Tel: (+31) 43 38 38 383
https://www.mecc.nl/en/

OFFICIAL LANGUAGE
The official language of the Congress is English and all presentations will be made in English.

CLOTHING
Clothing is informal for all occasions.

CLIMATE
The average temperature in Maastricht in May reaches to around 17°C, and dips no lower than 8°C in the evenings.

REGISTRATION DESK OPENING HOURS
The Organising Secretariat is at the guests disposal at the Registration Desk according to the following schedule:
Sunday May 26       hrs 09:00-20:15
Monday May 27       hrs 06:45-18:45
Tuesday May 28      hrs 08:00-18:30
Wednesday May 29    hrs 07:00-12:15

EXHIBITION OPENING HOURS
An exhibition of pharmaceuticals, technical and research products take place in the MECC Maastricht Convention Center on the first floor according to the following schedule:
Sunday May 26       hrs 19:00-21:00
Monday May 27       hrs 10:00-19:00
Tuesday May 28      hrs 10:00-19:00
Wednesday May 29    hrs 09:00-12:45

HOW TO GET CME/CPD CERTIFICATE
After the Congress, all registered participants will receive an email with a link to the Congress survey and the credit claiming procedure. Your CME/CPD certificate will be delivered electronically after completing the education evaluation and credit claiming process. For more information, please see pages 18-20. Printed certificates will not be available at the Congress.
REFRESHMENTS
Coffee and refreshments will be served to Congress participants in the Exhibition Area from Monday May 27 to Wednesday May 29 as indicated in the programme. A cash bar will be available at the MECC Café, Expo Foyer.

BE CONNECTED
Wi-Fi is available for the Congress participants throughout the public areas of the Congress venue. Username: **EAS-2019** | Password: **eas-2019**

EAS 2019 APP
Install the EAS 2019 interactive mobile App on your smartphone and portable devices to access all the Congress information you could need during the Congress:
• See the overview of sessions, speakers and exhibitors
• Create your own programme for the event, including bookmarking the sessions you wish to attend
• Receive real-time updates

CONGRESS ABSTRACTS
The Congress abstracts will be published online in the August issue of the Atherosclerosis Journal.

MOBILE PHONE & PHOTOGRAPHY
Participants are kindly requested to keep their mobile phones switched off in session halls and refrain from taking pictures during sessions.

NON-SMOKING POLICY
The EAS Congress is a non-smoking event. Smoking in the Congress area is not allowed.

CLOAKROOM
A cloakroom is available for participants according to the scientific schedule of the Congress. The cloakroom and oversize deposit are located in the Forum Area on the Ground Floor. Participants are kindly requested not to leave their personal belongings after the closing time.

LIABILITY AND INSURANCE
The Congress Secretariat and Organisers cannot accept liability for personal accidents or loss or damage to private property of participants, either during or as a result of the Congress. Participants are advised to take out their own personal travel and health insurance for their trip.
GUEST ATTENDANCE POLICY
All event activities (including educational sessions, meal functions, exhibit hall, etc.) are exclusively reserved for registered attendees. Non-registered guests (including children, family members, colleagues, etc.) are not allowed in any of the event areas. Badges provided at registration are required for entrance into all functions and will be strictly enforced.

SAFETY AND SECURITY
Please do not leave bags or suitcases unattended at any time, whether inside or outside the session halls.

WEBCASTING
Selected sessions will be recorded and will be available on the Society’s educational platform EAS Academy following the Congress.

CONGRESS SECTETARIAT
c/o Kenes Group
Rue Francois-Versonnex 7, 1207 Geneva, Switzerland
Website: www.kenes.com

PRIVACY DISCLOSURE AND PUBLISHING OF IMAGES
Pursuant to article 13 of Legislative Decree no. 196/2003, the personal data of the participants, their videos and photos made during the event, will be used by Kenes International for purposes related to the communication and the valorization of the event. Such personal data will be communicated only to those people who are in charge of the activities necessary to the aforementioned purposes. Photos and videos will be also published on the website and social networks of Kenes International (and on the website and social networks of the event, if any). The treatment will be carried out with appropriate tools ensuring security and confidentiality and may be also carried out by computerized tools that are able to memorize, manage and transmit the personal data. The data controller is Kenes International, with legal seat in Geneva, Rue Francois-Versonnex 7, 1207 Geneva, Switzerland. With regards to the personal data granted, included photos and videos, each participant can exercise the rights set forth in article 7 of Legislative Decree n. 196/2003 by contacting the data controller.
CONGRESS FLOOR PLAN

LEVEL 0

SPEAKERS’ READY ROOM
London 0.1

WILLEM ERKELENS HALL
Brussels 0.4/Paris 0.5

To Level 1
LEVEL 2

JACQUELINE WITTEMAN HALL
Colorado 2.1

EAS PRESIDENT’S OFFICE
Meuse 2.7/Rhine 2.8

PRESS OFFICE
Amazon 2.14

CME OFFICE
Ganges 2.12/Nile 2.13
ABOUT MAASTRICHT

Maastricht, in the south of the Netherlands, has a unique location at the heart of Europe. With eight airports within an hour’s journey by road or train, Maastricht is easy to reach.

One of the oldest cities in the Netherlands, Maastricht bears witness to the passage of time. The city’s unique and vibrant culture has evolved throughout the centuries under Germanic and Roman influences.

The charming and compact city centre has something to offer everyone – and the highlights are all within walking distance. Historical buildings and beautiful churches, trendy designer shops, open squares with welcoming pavement cafés and a good range of high class restaurants – yours to explore and enjoy!

FEATURES OF MAASTRICHT

VRIJTHOF SQUARE
Vrijthof Square has been called the most beautiful square in the country. Perhaps because it is the cultural heart of the city. This square has attracted people since Medieval times when pilgrims came to see the grave of Saint Servatius. These days, Vrijthof is known for its outdoor cafés and events.

BASILICA OF ST. SERVATIUS
This historical church was dedicated to Saint Servatius, an Armenian missionary who died and was buried in Maastricht. The grave of the saint, as well as the many relics in the church treasury, made the basilica a popular pilgrimage site. The basilica, which is the oldest in the Netherlands, has one of the most magnificent treasure rooms of Europe.
THE BONNEFANTEN MUSEUM
This is Maastricht’s main art museum which holds a mixture of medieval and contemporary art. The structure itself is a great architectonic highlight. The first floor highlights Italian, Flemish and Dutch painting as well as the museum’s extensive collection of Medieval sculpture. The second floor exhibits contemporary art with a focus on American Minimalism, Italian Arte Povera and Concept Art.

CAFÉS AND TERRACES
Maastricht is known as the most ‘bon vivant’ city in Holland. Everywhere you go, you can enjoy excellent food and drink in beautiful surroundings. You can choose from countless terraces and cafés. You can also discover the history of the old brewery and the centuries-old watermill that still grinds grain for the bakery.

THE CITY PARK AND THE VINEYARDS OF MAASTRICHT
The City Park is a perfect place to explore the rich history in and around the park. Climb the centuries-old city walls to take in the beauty of Maastricht for a moment. The vineyards of Maastricht are some of the oldest in Holland, initially planted back in Roman times. You can visit these vineyards, just outside the city, and taste Pinot Noir, Riesling and Müller-Thúrgau.

ST. PETER’S CAVES
In one of the highest spots in Holland, miles of tunnels make for a unique experience. A tour beneath Saint Peter’s Mount near Maastricht allows you to explore the caves that were excavated by men through the centuries.
SCIENTIFIC INFORMATION
EDUCATIONAL OBJECTIVES
After participating in this educational event, learners should be able to:
• Address individual needs in compliance with their Continuous Professional Development (CPD) plan.
• Discuss latest scientific advantages in the field of atherosclerosis and related cardiovascular conditions.
• Identify educational resources and networks for exchange of knowledge and learning about atherosclerosis.
• Discuss the metabolic dysfunction in cardiovascular disease.
• Discuss the current research projects within EAS and enhance opportunities for future collaboration between groups of young researchers.
• Exchange ideas and knowledge in the field of atherosclerosis and related cardiovascular conditions across continents, institutions, and individuals.
• Identify novel treatment strategies to atherosclerosis around the world.

TARGET AUDIENCE
EAS 2019 is the global meeting place for specialists in the field of clinical chemistry, diabetes, endocrinology, primary care as well as clinicians and basic researchers studying atherosclerosis and related vascular diseases. Because of the diverse, clinically focused educational offering, participants are able to tailor the curriculum to meet the needs of international clinicians of all levels of experience.

ACCREDITATION STATEMENT AND CREDIT DESIGNATION
EUROPEAN ACCREDITATION COUNCIL FOR CONTINUING MEDICAL EDUCATION (UEMS/EACCME)
The 87th European Atherosclerosis Society Congress is accredited by the European Accreditation Council for Continuing Medical Education (EACCME) to provide the following CME activity for medical specialists. The EACCME is an institution of the European Union of Medical Specialists (UEMS): www.uems.net
The 87th European Atherosclerosis Society Congress is designated for a maximum of, or up to, 13 European external CME credits. Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity.

AMERICAN MEDICAL ASSOCIATION (AMA)
Through an agreement between the European Union of Medical Specialists and the American Medical Association, physicians may convert EACCME credits to an equivalent number of AMA PRA Category 1 Credits™. Information on the process to convert EACCME credit to AMA credit can be found at www.ama-assn.org/go/internationalcme.
ROYAL COLLEGE OF PHYSICIANS AND SURGEONS OF CANADA
Live educational activities, occurring outside of Canada, recognized by the UEMS-EACCME for ECMEC credits are deemed to be Accredited Group Learning Activities (Section 1) as defined by the Maintenance of Certification Program of The Royal College of Physicians and Surgeons of Canada.
For more information, visit: www.royalcollege.ca.

CREDIT BREAKDOWN
Each participant should claim only those hours of credit that he/she actually spent in the educational activity.

<table>
<thead>
<tr>
<th>Day</th>
<th>Sunday, May 26</th>
<th>Monday, May 27</th>
<th>Tuesday, May 28</th>
<th>Wednesday, May 29</th>
<th>Total Credits:</th>
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</thead>
<tbody>
<tr>
<td>Maximum Credits</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>13</td>
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</table>

TO RECEIVE YOUR CME/CPD CERTIFICATE
The CME/CPD certificate will be available after completing the online evaluation and credit claiming procedure. The process takes about 5 minutes. We thank you for your feedback as it is an important part of CME/CPD accreditation and helps improve future educational offerings.

Before June 26, 2019:
1. Access the online system via any of the following
   - Visit the following link: https://www.surveymonkey.com/r/EAS2019Evaluation
   - Please note that web browsers Mozilla Firefox 2.X or higher, or Google Chrome are recommended
   - Visit the CME/CPD Accreditation page on the event website
   - Follow the link in the email sent at the end of the event
2. Complete the anonymous online evaluation
3. Complete the credit claim form and submit
4. The CME/CPD certificate will be available for download and/or print for your personal records
DISCLOSURE AND RESOLUTION OF PERSONAL CONFLICTS OF INTEREST

In accordance with CME/CPD accreditation criteria and standards for commercial support to ensure balance, independence, objectivity, and scientific rigor, those in control of the educational content must disclose potential or actual conflicts of interest. Disclosure information is evaluated and conflicts of interest resolved. Disclosure is made to participants prior to the activity. Participants will be asked on the evaluation to assess the objectivity and independence of the event.

- Disclosure information is available on the event website and also posted on the notice board in the registration area.

INDUSTRY SUPPORT DISCLOSURE

This event is supported, in part, by funding from industry. All support is managed in strict accordance with CME/CPD accreditation criteria and standards for commercial support. Appropriate acknowledgement of all supporting organisations is made in the programme guide, on the event website, and with signage during the event.

- A list of all industry supporters is available in the Industry Support and Exhibition section at the back of the programme guide.
- Detailed programmes for all Industry Sessions are available in the separate Industry Supported Session booklet.

COMMITMENT TO THE HIGHEST STANDARDS IN CME/CPD

EAS congress organiser Kenes is committed to being a valuable and knowledgeable partner in the design and delivery of educationally strong, independent, transparent, and effective CME/CPD programmes. Kenes is a proud member of the Good CME Practice Group (gCMEp), a member organisation contributing to improving health outcomes by:

- Championing best practice in CME/CPD
- Mentoring and educating
- Working in collaboration with critical stakeholders
- Maintaining and improving standards

Membership in the Good CME Practice Group illustrates Kenes commitment to high standards and knowledgeable partnership with its clients in the design and delivery of medical events.
# Programme at a Glance

## Sunday, May 26

<table>
<thead>
<tr>
<th>Time</th>
<th>ANITSCHKOW HALL</th>
<th>MARTEN HOFKER HALL</th>
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<tbody>
<tr>
<td>12:30</td>
<td>CME Educational Programme PCSK9 beyond LDL cholesterol</td>
<td>CME Educational Programme PCSK9 beyond LDL cholesterol</td>
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<tr>
<td>14:00</td>
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<tr>
<td>14:15</td>
<td>CME Educational Programme Nutritional and dietary approaches for personalised treatment</td>
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<tr>
<td>15:45</td>
<td>COFFEE BREAK</td>
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<tr>
<td>16:00</td>
<td>CME Educational Programme How can we improve outcomes in our patients with CAD?</td>
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<tr>
<td>17:30</td>
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<tr>
<td>18:00</td>
<td>Opening Ceremony incl. Anitschkow lecture</td>
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<tr>
<td>19:30-21:00</td>
<td>Welcome Reception (Exhibition Hall)</td>
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<td>Time</td>
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<td>08:15</td>
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<tr>
<td>08:30</td>
<td><strong>PLENARY SESSION</strong></td>
<td><strong>METABOLIC DYSFUNCTION IN CARDIOVASCULAR DISEASE</strong></td>
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<tr>
<td>10:30</td>
<td><strong>COFFEE BREAK, EXHIBITION &amp; POSTER VIEWING</strong></td>
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<tr>
<td>11:00</td>
<td><strong>ADVANCED CLINICAL SEMINAR GENETICALLY DETERMINED DYSLIPIDAEMIAS</strong></td>
<td><strong>JOINT SESSION IAS-EAS</strong></td>
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<td>12:15</td>
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<td>12:30</td>
<td><strong>KEYNOTE LECTURE</strong></td>
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<td>13:00</td>
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<tr>
<td>13:15</td>
<td><strong>CME EDUCATIONAL PROGRAMME MOVING FROM HIGH-INTENSITY STATIN THERAPY TO HIGH-INTENSITY LIPID LOWERING THERAPY. IS IT TIME TO RECONSIDER THE GUIDELINES?</strong></td>
<td><strong>INDUSTRY SPONSORED EDUCATIONAL SYMPOSIUM</strong></td>
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<td>15:15</td>
<td><strong>COFFEE BREAK, EXHIBITION &amp; POSTER VIEWING</strong></td>
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<td>15:45</td>
<td><strong>JOINT SESSION ESC-EAS IMAGING STRATEGIES FOR DETECTING ATHEROSCLEROSIS</strong></td>
<td><strong>LATE BREAKING SESSION ON PHARMACOLOGY OF DYSLIPIDEMIA</strong></td>
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<td>17:20-18:45</td>
<td><strong>WINE and SCIENCE - POSTER VIEWING SESSION</strong></td>
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## TUESDAY, MAY 28

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<tr>
<th>Time</th>
<th>ANTSCHKOW HALL</th>
<th>MARTEN HOFKER HALL</th>
<th>WILLEM ERKELENS HALL</th>
<th>JACQUELINE WITTEMAN HALL</th>
<th>SCIENCE AT A GLANCE</th>
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<tr>
<td>08:30</td>
<td>PLENARY SESSION</td>
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<td></td>
<td>PREVENTING CVD RISK: WHERE DO WE STAND?</td>
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<td>10:30</td>
<td>COFFEE BREAK, EXHIBITION &amp; POSTER VIEWING</td>
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<td>11:00</td>
<td>ADVANCED CLINICAL SEMINAR DYSLIPIDAEMIA GUIDELINES: WHAT IS NEW?</td>
<td>WORKSHOP NOVEL TARGETS FOR CONTROLLING DYSLIPIDAEMIAS</td>
<td>WORKSHOP HEMATOPOIETIC CELLS AND CVD</td>
<td>WORKSHOP CELLULAR CROSSTALK AND PLAQUE STABILITY</td>
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<td>12:30</td>
<td>CME EDUCATIONAL PROGRAMME PCSK9 INHIBITION: NEW INSIGHTS FROM CLINICAL TRIALS</td>
<td>CME EDUCATIONAL PROGRAMME THE OMEGA 3 TALE: WHERE DO WE STAND?</td>
<td>CME EDUCATIONAL PROGRAMME FAMILIAL CHYLOMICRONAEMIA SYNDROME: FROM BIOLOGY TO THERAPEUTIC APPROACHES</td>
<td>INDUSTRY SPONSORED SPECIAL LECTURE</td>
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**WEDNESDAY, MAY 29**

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<tr>
<th>ANITSCHKOW HALL</th>
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<th>WILLEM ERKELENS HALL</th>
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<td><strong>INDUSTRY SPONSORED</strong></td>
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<tr>
<td>08:30</td>
<td><strong>PLENARY SESSION LOOKING TO</strong></td>
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<td><strong>THE FUTURE – NOVEL TREATMENT</strong></td>
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<td><strong>STRATEGIES: THE IMMUNE SYSTEM</strong></td>
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<td><strong>COFFEE BREAK, EXHIBITION &amp; POSTER VIEWING</strong></td>
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<td>11:00-12:15</td>
<td><strong>ADVANCED CLINICAL SEMINAR</strong></td>
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<td><strong>DEBATE ON Lp(a)</strong></td>
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<td><strong>WORKSHOP METABOLIC</strong></td>
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<td><strong>DYSFUNCTION AND CVD</strong></td>
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<td><strong>WORKSHOP OMICS IN PREDICTING</strong></td>
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<td><strong>CV RISK</strong></td>
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<td><strong>WORKSHOP CELLULAR METABOLISM</strong></td>
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<td><strong>IN ATHEROSCLEROSIS AND DIABETES</strong></td>
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Note: The scientific program in the book is subject to change. For the latest, most updated version, please check the online interactive program on the website or the Congress mobile App (see the advert at the back cover of this book)
EAS is proud to have Science at a glance E-Poster session that will be located in the exhibition area, providing the unique opportunity for convivial scientific discussions and exchange.

### SESSION 1 - MONDAY, MAY 27

<table>
<thead>
<tr>
<th>TOPICS</th>
<th>SESSION CHAIR</th>
<th>TOTEM #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hematopoiesis and agranulocytosis: what’s new?</td>
<td>Stefano Romeo, Sweden</td>
<td>1</td>
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<tr>
<td>How to prevent and treat cardiovascular disease?</td>
<td>J. Wouter Jukema, The Netherlands</td>
<td>2</td>
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<tr>
<td>Immunity - the force awakens</td>
<td>Esther Lutgens, The Netherlands</td>
<td>3</td>
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<tr>
<td>Lipids and lipoprotein metabolism - recent progress</td>
<td>Geesje M. Dallinga-Thie, The Netherlands</td>
<td>4</td>
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<tr>
<td>New visions of smooth muscle cell biology</td>
<td>Nicola Ferri, Italy</td>
<td>5</td>
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<tr>
<td>News from population cohort studies</td>
<td>Gerit-Holger Scherntaner, Austria</td>
<td>6</td>
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<tr>
<td>Novel attacks of immunity</td>
<td>Katariina Öörni, Finland</td>
<td>7</td>
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<tr>
<td>Novel insights into dyslipidemia treatment</td>
<td>Marat Ezhov, Russia</td>
<td>8</td>
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<tr>
<td>Novel molecular aspects of FH</td>
<td>Jeanine Roeters van Lennep, The Netherlands</td>
<td>9</td>
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<tr>
<td>Recent advances in diabetes and insulin sensitivity</td>
<td>Kevin Jon Williams, USA</td>
<td>10</td>
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<tr>
<td>Targeting PCSK9 in real world</td>
<td>Tom Seijkens, The Netherlands</td>
<td>11</td>
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<tr>
<td>What's new with diet?</td>
<td>Daniel Pella, Slovak Republic</td>
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<tr>
<td>TOPICS</td>
<td>SESSION CHAIR</td>
<td>TOTEM #</td>
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<tr>
<td>Battle of macrophages</td>
<td>Laszlo Nagy, USA</td>
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<tr>
<td>Cholesterol efflux and reverse cholesterol transport</td>
<td>Vesa Olkkonen, Finland</td>
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<tr>
<td>Clinical vascular disease: burning questions</td>
<td>Michael Sieweke, Germany</td>
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<tr>
<td>Identifying patients with FH</td>
<td>Meeike Kusters, The Netherlands</td>
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<tr>
<td>Imaging atherosclerosis</td>
<td>Frank Visseren, The Netherlands</td>
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<tr>
<td>Novel findings in genomics, GWAS, and epigenetics</td>
<td>Mathilde Varret, France</td>
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<tr>
<td>Novel risk markers - what do they tell us?</td>
<td>Katey Rayner, Canada</td>
<td>7</td>
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<tr>
<td>Obesity and adipose tissue biology</td>
<td>Jörg Heeren, Germany</td>
<td>8</td>
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<tr>
<td>Progressions in vascular biology research</td>
<td>Margus Viigimaa, Estonia</td>
<td>9</td>
</tr>
<tr>
<td>Rising stars of risk markers</td>
<td>Gerard Pasterkamp, The Netherlands</td>
<td>10</td>
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<tr>
<td>TG-rich lipoproteins and lipases</td>
<td>Noam Zelcer, The Netherlands</td>
<td>11</td>
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<tr>
<td>Update on Lp(a)</td>
<td>Jeffrey Kroon, The Netherlands</td>
<td>12</td>
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</tbody>
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## SESSION 3 - TUESDAY, MAY 28

**TOPICS** | **SESSION CHAIR** | **TOTEM #**
--- | --- | ---
Advances in understanding lipid and lipoprotein metabolism | Dagmar Kratky, Austria | 1
All about extracellular matrix | Elena Aikawa, USA | 2
CVD outcomes in patients with FH | Raul Santos, Brazil | 3
Epidemiological aspects of CVD treatment | Kornelia Kotseva, United Kingdom | 4
Hot topics in real-world statin therapy | Albert Zambon, Italy | 5
Hyperlipidemia: hot with polygenic scores, whole-exome sequencing, and functional genomics | Jan-Albert Kuivenhoven, The Netherlands | 6
Immunity strikes back | Laurent Yvan-Charvet, France | 7
Modified lipoproteins | Marit Westerterp, The Netherlands | 8
Preventing and treating cardiovascular disease | Meral Kayikcioglu, Turkey | 9
Revenge of macrophages | Klaus Ley, USA | 10
Understanding insulin resistance | Paolo Parini, Sweden | 11
Up-to-date with recent epidemiological findings | Samia Mora, USA | 12
### SESSION 4 – TUESDAY, MAY 28

<table>
<thead>
<tr>
<th>TOPICS</th>
<th>SESSION CHAIR</th>
<th>TOTEM #</th>
</tr>
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<tbody>
<tr>
<td>Advances in endothelium biology</td>
<td>Giuseppina Caligiuri, France</td>
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<tr>
<td>Close encounters of the macrophages</td>
<td>Andreas Zirlik, Germany</td>
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<tr>
<td>Gut-liver axis and hepatic lipid metabolism</td>
<td>Xavier Collet, France</td>
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<tr>
<td>HDL - new hope?</td>
<td>Matti Jauhiainen, Finland</td>
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<tr>
<td>Hot topics in clinical vascular disease</td>
<td>Martin Bennett, United Kingdom</td>
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<tr>
<td>NASH and NAFLD</td>
<td>Onno Holleboom, The Netherlands</td>
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<tr>
<td>New frontiers in endothelium biology</td>
<td>Luisa Iruela-Arispe, USA</td>
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<tr>
<td>New immunomodulatory treatment strategies against atherosclerosis</td>
<td>Mathias Narrendorf, USA</td>
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<tr>
<td>Novel insights of diabetes</td>
<td>Patrick A.J. Schrauwen, The Netherlands</td>
<td>9</td>
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<tr>
<td>Predicting risk and outcomes</td>
<td>Kyriakos E. Kypreos, Greece</td>
<td>10</td>
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<tr>
<td>The matter of Lp(a)</td>
<td>Florian Kronenberg, Austria</td>
<td>11</td>
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<tr>
<td>Updated knowledge on lipid and lipoprotein metabolism</td>
<td>Stefan Nilsson, Sweden</td>
<td>12</td>
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</table>
POSTERS

All posters will be on display for the duration of the Congress from Sunday, May 26 to Wednesday, May 29.
Each poster has been given a number and should be fixed to the board marked with the same number.
Each Author is asked to stand by their poster during the allocated poster viewing session.
The Organisers are not responsible for loss of any posters that have not been removed by the end of the Congress, Wednesday, May 29.

ATHEROSCLEROSIS AND VASCULAR BIOLOGY
1.1 Atherosclerosis regression P.001-P.006
1.2 Vascular biology of the arterial wall P.007-P.016
1.3 Endothelial cell function and biology P.017-P.031
1.4 Clinical endothelial dysfunction P.032-P.043
1.5 Smooth muscle cells P.044-P.050
1.6 Extracellular matrix and calcification P.051-P.057
1.7 Hormones and atherosclerosis P.058-P.063
1.8 Imaging technologies P.064-P.069

INFLAMMATION, IMMUNITY AND MACROPHAGES
2.1 Inflammation, immunity and infection P.070-P.105
2.2 Macrophages in lipid metabolism and atherosclerosis P.106-P.116

LIPIDS
3.1 TG rich lipoproteins metabolism and lipases P.117-P.125
3.2 Cellular lipid metabolism and lipid droplets P.126-P.128
3.3 Bile Acids and intestinal lipid metabolism P.129-P.133
3.4 Lp(a) P.134-P.143
3.5 HDL metabolism P.144-P.155
3.6 Cholesterol efflux and reverse cholesterol transport P.156-P.165
3.7 Modified lipoproteins P.166-P.169
3.8 Lipidomics P.170-P.171
3.9 Managing familial hypercholesterolemia P.172-P.214
3.10 Novel aspects of dyslipidemia treatment P.215-P.234
3.11 PCSK9 therapy in real life P.235-P.243
GENES
4.1 Genomics and GWAS P.244-P.249
4.2 Epigenetics and microRNA P.250-P.253

CARDIOVASCULAR DISEASE: RISK, PREVENTION, AND TREATMENT
5.1 Cardiovascular disease and risk factors P.254-P.305
5.2 Risk factors P.306-P.312
5.3 Gender and cardiovascular risk P.313-P.331
5.4 Novel risk factors and biomarkers P.332-P.358
5.5 Prevention and treatment of CVD P.359-P.396
5.6 Nutrition and diet P.397-P.412
5.7 Coagulation and thrombosis P.413-P.427

OBESITY, DIABETES, AND KIDNEY DISEASES
6.1 Obesity and metabolic syndrome P.428-P.447
6.2 Diabetes, insulin sensitivity and resistance P.448-P.468
6.3 Macro - and microvascular complications of diabetes P.469-P.477
6.4 Chronic kidney disease and nephropathy P.478-P.484

LATE BREAKING P.485-P.429

MISCELLANEOUS P.530-
PAUL RIDKER
BOSTON, USA

Paul M Ridker is the Eugene Braunwald Professor of Medicine at the Harvard Medical School and directs the Center for Cardiovascular Disease Prevention, a translational research unit at the Brigham and Women’s Hospital in Boston. He is a graduate of Brown University (1981), the Harvard Medical School (1986), the Harvard School of Public Health (1992), and has received honorary medical degrees from several international institutions. As a preventive cardiologist, Dr. Ridker is best known for his work developing the inflammatory hypothesis of heart disease. His primary research brings together classical tools of large-scale, population-based epidemiology with emerging genetic and molecular techniques designed to improve the ability to predict and prevent vascular disease. Specific areas of interest involve inflammatory mechanisms of heart disease and molecular and genetic determinants of haemostasis, thrombosis, and inflammation with a focus on “predictive medicine”, early disease diagnosis, and the underlying causes and prevention of acute coronary syndromes. Dr Ridker was the Principal Investigator of the Canakinumab Anti-Inflammatory Thrombosis Outcomes Study (CANTOS) and the NHLBI funded Cardiovascular Inflammation Reduction Trial (CIRT).
HELEN HOBBS
DALLAS, USA

Helen H. Hobbs, M.D., is an Investigator of the Howard Hughes Medical Institute and a Professor of Internal Medicine and Molecular Genetics at the University of Texas Southwestern Medical Center. She holds the Dallas Heart Ball Chair in Cardiology Research, the Philip O’Bryan Montgomery Jr., M.D., Distinguished Chair in Developmental Biology, and the Eugene McDermott Distinguished Chair for the Study of Human Growth and Development. She obtained her undergraduate degree from Stanford University prior to attending Case Western Reserve University School of Medicine.

After completing an internship in internal medicine at Columbia-Presbyterian Medical Center, she moved to Dallas, Texas where she finished her clinical training and served as chief resident in internal medicine at Parkland Memorial Hospital. She worked as a postdoctoral fellow in the laboratory of Drs. Michael Brown and Joseph Goldstein before joining the faculty of UT Southwestern in 1987.

Currently, Professor Hobbs is Director of the McDermott Center for Human Growth and Development, which serves as the Center for Human Genetics at UT Southwestern. She is also Director of the Dallas Heart Study, a longitudinal, multiethnic, population-based study of Dallas County. Her professional affiliations include the Arteriosclerosis, Thrombosis and Vascular Disease Council of the American Heart Association, the Association of American Physicians, the American Society of Human Genetics and the American Society of Clinical Investigation. Professor Hobbs has received numerous awards, most recently the Passano Award (with Jonathan Cohen) in 2016, and the Breakthrough Prize in Life Sciences and Pearl Meister Greengard Prize, Rockefeller University, both in 2015.
THE RESEARCH

Professor Hobbs’s research focuses on defining the genetic determinants of plasma lipid levels and cardiovascular risk. In her early work she investigated the culprit gene (LDLRAP1) that is inactivated in autosomal recessive hypercholesterolaemia, as well as defective variants in ABCG5 and ABCG8 which play a role in sitosterolaemia. In the design of the Dallas Heart Study, she joined forces with Jonathan C. Cohen to focus on rare and low-frequency genetic variants that contribute to complex diseases, such as coronary atherosclerosis. Together, they hypothesized that if low-frequency variants with large effects were present in the population, their identification would expedite the translation of a genetic association into a therapeutic product. This “sequencing the extremes” strategy was critical to the discovery of loss-of-function mutations in PCSK9 that were associated with low plasma LDL-C levels and protection from atherosclerotic cardiovascular disease, and subsequent development of novel PCSK9-targeted therapeutics. In later research she identified genetic variations that confer susceptibility to fatty liver disease. In genome-wide association studies, Professor Hobbs identified a single nucleotide polymorphism in patatin-like phospholipase domain–containing protein 3 (PNPLA3), which is associated with an increase in hepatic triglyceride content, as the most important genetic risk factor for fatty liver disease. The effect of this variant is substantially amplified by obesity and insulin resistance. A second risk allele for hepatic steatosis was identified in a gene that encodes transmembrane 6 superfamily member 2 (TM6SF2). Subsequent research has shown that both variants are associated with the full spectrum of alcoholic as well as non-alcoholic fatty liver disease, albeit via different mechanisms. More recently, her research has identified a loss-of-function variant of hydroxysteroid 17-β dehydrogenase that is associated with a reduced risk of chronic liver disease and reduced progression of fatty liver disease. Akin to the PCSK9 story, these findings provide a rationale for a new therapeutic approach for this increasingly common disease.
SUNDAY, MAY 26, 2019

12:30 - 14:00
Marten Hofker Hall

CME EDUCATIONAL PROGRAMME: PCSK9 BEYOND LDL CHOLESTEROL

Chairs: J. Boren (Sweden)
       A.L. Catapano (Italy)

12:30  INTRODUCTION

12:35  PCSK9 IN THE LIVER
       J. Horton (USA)

13:00  PCSK9 AS A TARGET: OTHER EFFECTS BEYOND LDL IN HUMANS
       U. Landmesser (Germany)

13:25  PCSK9 AND OTHER SYSTEMS
       B. Cariou (France)

13:50  CLOSING REMARKS
**CME EDUCATIONAL PROGRAMME: NUTRITIONAL AND DIETARY APPROACHES FOR PERSONALISED TREATMENT**

EAS HAVE INDEPENDENTLY ORGANISED ALL MATTERS RELATED TO THIS SESSION, INCLUDING CONTENT AND PRESENTERS. WE ACKNOWLEDGE FINANCIAL SUPPORT, IN THE FORM OF AN EDUCATIONAL GRANT, RECEIVED FROM INDUSTRY IN SUPPORT OF THE PROGRAMME.

Chairs: A. Mello e Silva (Portugal)
J. Chapman (France)

14:15  **DIFFERENT APPROACHES TO LDL LOWERING: AN OVERVIEW OF OPTIONS INCLUDING NUTRITION, FOOD SUPPLEMENTS, AND DRUG THERAPY**
J. Chapman (France)

14:35  **POSSIBILITIES FOR NUTRIGENETICS AND NUTRACEUTICALS IN CVD PREVENTION**
J. Plat (The Netherlands)

14:55  **EFFICACY AND SAFETY OF NUTRACEUTICALS**
M. Banach (Poland)

15:15  **PANEL DISCUSSION - WHEN AND HOW TO USE NUTRACEUTICALS IN PRIMARY PREVENTION**
A. Mello e Silva (Portugal)
M. Banach (Poland)
J. Chapman (France)
J. Plat (The Netherlands)
M. Viigimaa (Estonia)
15:45 - 16:00  Marten Hofker Hall

COFFEE BREAK

16:00 - 17:30  Marten Hofker Hall

CME EDUCATIONAL PROGRAMME: HOW CAN WE IMPROVE OUTCOMES IN OUR PATIENTS WITH CAD?

EAS HAVE INDEPENDENTLY ORGANISED ALL MATTERS RELATED TO THIS SESSION, INCLUDING CONTENT AND PRESENTERS. WE ACKNOWLEDGE FINANCIAL SUPPORT, IN THE FORM OF AN EDUCATIONAL GRANT, RECEIVED FROM INDUSTRY IN SUPPORT OF THE PROGRAMME.

Chairs: C. Binder (Austria)
        C.M. Ballantyne (USA)

16:00  WHAT IS THE PRICE TO PAY IF WE ARE NOT AT GOAL?
       A. Zambon (Italy)

16:20  OPTIMAL LIPID LOWERING THERAPY: NEW AND ESTABLISHED THERAPIES
       C.M. Ballantyne (USA)

16:40  PHYSICIAN-PATIENT RELATIONSHIP: CHALLENGES AND OPPORTUNITIES
       L. Tokgözoglu (Turkey)

17:00  ROUND TABLE DISCUSSION - REAL LIFE CASES: WHAT DO I DO?
       All speakers
18:00 - 19:30  
Anitschkow Hall

OPENING CEREMONY INCLUDING ANITSCHKOW LECTURE

A JOURNEY FROM PLAQUE TO PATÉ
H. Hobbs (USA)

19:30 - 21:00  
Exhibition area

WELCOME RECEPTION IN THE EXHIBITION AREA
MONDAY, MAY 27, 2019

07:30 - 08:15 Willem Erkelens Hall

INDUSTRY SPONSORED BREAKFAST SYMPOSIUM (SESSION NOT INCLUDED IN MAIN EVENT CME/CPD CREDIT)

07:30 - 08:15 Jacqueline Witteman Hall

INDUSTRY SPONSORED BREAKFAST SYMPOSIUM (SESSION NOT INCLUDED IN MAIN EVENT CME/CPD CREDIT)

08:30 - 10:30 Anitschkow Hall

PLENARY SESSION: METABOLIC DYSFUNCTION IN CARDIOVASCULAR DISEASE

Chairs: E. Biessen (The Netherlands)  
L. Tokgözoglu (Turkey)

08:30 MACROPHAGE IMMUNOMETABOLISM OPPORTUNITIES FOR PHENOTYPICAL MODULATION?  
K. Ley (USA)

09:00 ANGIOGENESIS REVISITED: ROLE AND (THERAPEUTIC) IMPLICATIONS OF ENDOTHELIAL METABOLISM  
P. Carmeliet (Belgium)

09:30 CARDIOVASCULAR AGING AND MITOCHONDRIA FUNCTION  
D. Seals (USA)

10:00 LIPIDS, LIPASES AND FATTY LIVER DISEASE  
H. Hobbs (USA)
10:30 - 11:00  Exhibition area

COFFEE BREAK, EXHIBITION & POSTER VIEWING

11:00 - 12:15  Anitschkow Hall

ADVANCED CLINICAL SEMINAR: GENETICALLY DETERMINED DYSLIPIDAEMIAS

Chairs: K. Ray (United Kingdom)
K. Rayner (Canada)

11:00  WHAT IS NEW?: GLOBAL DIAGNOSTIC ALGORITHM FOR FCS
D. Gaudet (Canada)

11:20  FHSC: WHAT HAVE WE LEARNED?
K. Ray (United Kingdom)

11:40  DISCUSSION
JOINT SESSION: IAS-EAS JOINT SYMPOSIUM

Chairs: L. Tokgözoglu (Turkey)  
R. Santos (Brazil)

11:00 NON-HDL CHOLESTEROL VS. APOB WHICH ONE TO PREFER?  
A. Von Eckardstein (Switzerland)

11:10 IS HDL CHOLESTEROL ALWAYS PROTECTIVE?  
R. Santos (Brazil)

11:20 A “RISKY” LIPOPROTEIN: REMNANTS  
B.G. Nordestgaard (Denmark)

11:30 Lp(a) ABOVE AND BEYOND LDL?  
J. Chapman (France)

11:40 ADIPOSE TISSUE-DERIVED CELL TRANSPLANTATION IN A HOMOZYGOUS FAMILIAL HYPERCHOLESTEROLEMIA PATIENT  

11:50 NONSYNONYMOUS VARIANTS IN Lp(a) REPRESENT NOVEL NULL APOLIPOPROTEIN(a) ALLELES  
S. Mccormick, B. Morgan, A. Brown, S. Wilbanks, P. Mace, M. Williams (New Zealand)

12:00 PHARMACOLOGICAL INHIBITION AND HEPATIC-DEFICIENCY OF PCSK9 REDUCE POST-PRANDIAL LIPEMIA IN MICE  
D. Garcon, A. Ayer, F. Moreau, N. Seidah, A. Prat, X. Prieur, M. Pichelin, B. Cariou, C. Le May (France)
WORKSHOP: FATTY LIVER AND CVD

Chairs: J. Horton (USA)
    M. Taskinen (Finland)

11:00  NONALCOHOLIC FATTY LIVER DISEASE AND VASCULAR COMPLICATIONS
    J. Horton (USA)

11:20  MYELOID LPCAT3 DEFICIENCY PROMOTES HEPATIC STEATOSIS IN HIGH-FAT DIET FED MICE
    T. Bourgeois, C. Thomas, A. Jalil, D. Masson, J. Grober (France)

11:30  PLATELET-SPECIFIC EXPRESSION OF THE INFLAMMATORY NF-κB ACTIVATOR IKK2 REDUCES ATHEROSCLEROSIS AND PROTECTS MICE FROM HEPATOSTEATOSIS

11:40  ADDITIONAL PROTECTIVE EFFECT OF P2Y13 PURINERGIC RECEPTOR IN CARDIOMETABOLIC DISEASES: ROLE IN NON-ALCOHOLIC FATTY LIVER DISEASE
    T. Duparc, C. Trenteseaux, G. Combes, J. Merian, L. Ghezalli, S. Najib, L. O. Martinez (France)

11:50  CD40 DEPLETION ON CD11C+ CELLS WORSENS DIET INDUCED OBESITY BUT AMELIORATES LIVER INFLAMMATION DURING NASH
    S. Aarts, M. Reiche, M. Den Toom, L. Beckers, M. Gijbels, E. Lutgens (The Netherlands)

12:00  INFLAMMATION IS ATTENUATED WITH LIPOXIN A4 (LXA4) THERAPY IN CHOLESTEROL FED RABBITS WITH ADVANCED ATHEROSCLEROSIS AND STEATOHEPATITIS
    E. Taylor, N. Huang, H. Hasturk, M. Bachschmid, J. Hamilton (USA)
11:00 - 12:15  
**Willem Erkelens Hall**

**WORKSHOP: LIPOPROTEINS, LIPIDS AND Atherosclerosis**

Chairs: A. Tselepis (Greece)  
H. Ginsberg (USA)

11:00  **LIPOLYSIS OF TRIGLYCERIDE-RICH LIPOPROTEINS, VASCULAR INFLAMMATION, AND Atherosclerosis**  
J. Boren (Sweden)

11:20  **THYMOsin β4 MEDIATES VASCULAR PROTECTION VIA REGULATION OF LOW DENSITY LIPOPROTEIN RECEPTOR RELATED PROTEIN 1 (LRP1)**  
S. Munshaw, S. Bruche, A. Redpath, K. Dube, J. Patel, K. Channon,  
N. Smart (United Kingdom)

11:30  **A COMMON VARIANT IN CCDC93 DECREASES LDL-C AND PROTECTS AGAINST MYOCARDIAL INFARCTION BY REGULATING ENDOSONAL TRAFFICKING OF LDL-RECEPTOR**  
A. Rimbert, N. Dalila, J. Wolters, N. Huijkmam, M. Smit, N. Kloosterhuis,  
M. Riemsma, Y. Van der Veen, A. Singla, F. Van Dijk, R. Frikkke-Schmidt,  
E. Burtsein, T.H. Tybjaerg-Hansen, B. Van de Sluis, J.A. Kuivenhoven  
(The Netherlands)

11:40  **MODIFIED LIPIDS AND LIPOPROTEINS**  
J. Witztum (USA)

12:00  **TARGETING LIPOPROTEIN(α)-INDUCED ENDOTHELIAL CELL METABOLIC REPROGRAMMING REVERSES INFLAMMATION AND LEUKOCYTE MIGRATION**  
J. Schnitzler, R. Hoogeveen, L. Ali, K. Prange, M. Van Weeghel,  
J. Bachmann, M. Versloot, R. Houtkooper, S. Tsimikas, M. Koschincksky,  
M. De Winther, A. Groen, E. Stroes, J. Kroon (The Netherlands)

12:15 - 12:30  
**Exhibition area**

**BREAK, EXHIBITION & POSTER VIEWING**
12:30 - 13:00 Anitschkow Hall

KEYNOTE LECTURE

Chairs: L. Tokgözoglu (Turkey)
A.L. Catapano (Italy)

12:30 INFLAMMATION INHIBITION ANDATHEROTHROMBOSIS
P. Ridker (USA)
The Keynote lecture is supported by a grant from the Dutch Heart Foundation.

11:00 - 11:15 Exhibition area

BREAK, EXHIBITION & POSTER VIEWING
CME EDUCATIONAL PROGRAMME: MOVING FROM HIGH-INTENSITY STATIN THERAPY TO HIGH-INTENSITY LIPID LOWERING THERAPY. IS IT TIME TO RECONSIDER THE GUIDELINES?

EAS HAVE INDEPENDENTLY ORGANISED ALL MATTERS RELATED TO THIS SESSION, INCLUDING CONTENT AND PRESENTERS. WE ACKNOWLEDGE FINANCIAL SUPPORT, IN THE FORM OF AN EDUCATIONAL GRANT, RECEIVED FROM INDUSTRY IN SUPPORT OF THE PROGRAMME.

Chairs: O. Wiklund (Sweden)  
P. Parini (Sweden)

13:15  INTRODUCTION

13:20  CURRENT EVIDENCE FOR LDL CAUSALITY; GOALS AND TARGETS  
C. Packard (United Kingdom)

13:40  REALITY CHECK: CAN WE GET TO GUIDELINE RECOMMENDED TARGETS?  
K. Kotseva (United Kingdom)

14:00  WHAT IS THE EVIDENCE FOR UPFRONT COMBINATION?  
M. Farnier (France)

14:20  TRANSLATING GENETIC DATA INTO CLINICAL TRIAL DESIGN  
K. Hovingh (The Netherlands)

14:40  CLOSING REMARKS
CME EDUCATIONAL PROGRAMME: PROBLEMS AND SOLUTIONS IN LIPID LOWERING THERAPY: HOW TO OPTIMISE DYSLIPIDAEMIA MANAGEMENT

EAS HAVE INDEPENDENTLY ORGANISED ALL MATTERS RELATED TO THIS SESSION, INCLUDING CONTENT AND PRESENTERS. WE ACKNOWLEDGE FINANCIAL SUPPORT, IN THE FORM OF AN EDUCATIONAL GRANT, RECEIVED FROM INDUSTRY IN SUPPORT OF THE PROGRAMME.

Chairs: R. Frikke-Schmidt (Denmark)
M. Banach (Poland)

13:15 INTRODUCTION

13:20 THE CRITICALITY OF LDL GOAL ATTAINMENT
M. Banach (Poland)

13:35 OPTIMISING CHOLESTEROL LOWERING TREATMENT: HOW MANY TIMES DO WE LEARN THE SAME LESSON?
L. Masana (Spain)

13:50 COMPLEX CASES IN LIPID LOWERING TREATMENT: ONE SIMPLE HIGH INTENSITY CHOLESTEROL LOWERING APPROACH FITS THEM ALL
A.S. Postadzhian (Bulgaria)

14:05 PANEL DISCUSSION
13:15 - 14:45 Jacqueline Witteman Hall

CME EDUCATIONAL PROGRAMME: ANGIPOIETIN-LIKE PROTEINS, NEW PLAYERS IN LIPID METABOLISM

EAS HAVE INDEPENDENTLY ORGANISED ALL MATTERS RELATED TO THIS SESSION, INCLUDING CONTENT AND PRESENTERS. WE ACKNOWLEDGE FINANCIAL SUPPORT, IN THE FORM OF AN EDUCATIONAL GRANT, RECEIVED FROM INDUSTRY IN SUPPORT OF THE PROGRAMME.

Chairs: C. Binder (Austria)
C.M. Ballantyne (USA)

13:15 INTRODUCTION

13:20 WHAT ARE THE ANGIPOIETIN-LIKE PROTEINS, NEW PLAYERS IN LIPID METABOLISM
M. Arca (Italy)

13:40 WHAT HAS HUMAN GENETICS TAUGHT US ABOUT ANGPTL 3, 4 AND 8 IN LIPID METABOLISM?
B. Ference (United Kingdom)

14:00 ANGPTL3 AS A THERAPEUTIC TARGET
D. Gaudet (Canada)

14:20 FUTURE DIRECTION - ROUND TABLE

14:40 CLOSING REMARKS

13:15 - 14:45 Marten Hofker Hall

INDUSTRY SPONSORED EDUCATIONAL SYMPOSIUM (SESSION NOT INCLUDED IN MAIN EVENT CME/CPD CREDIT)

15:15 - 15:45 Exhibition area

COFFEE BREAK, EXHIBITION & POSTER VIEWING
JOINT SESSION: ESC-EAS JOINT SYMPOSIUM: IMAGING STRATEGIES FOR DETECTING ATHEROSCLEROSIS

Chairs: L. Tokgözoglu (Turkey)
       J. Bax (The Netherlands)

15:45 NONINVASIVE IMAGING FOR EARLY DIAGNOSIS OF ATHEROSCLEROSIS
      V. Fuster (USA)

16:05 CT IMAGING OR SIMPLY TREAT EVERYONE AT INTERMEDIATE OR HIGH RISK CVD?
      J. Bax (The Netherlands)

16:25 IMAGING INFLAMMATION: IS IT IMPORTANT FOR CLINICAL PRACTICE?
      E. Stroes (The Netherlands)

16:45 IMAGING VULNERABLE PLAQUE
      S. Nicholls (Australia)

17:05 CLOSING REMARKS
15:45 - 17:15  Marten Hofker Hall

LATE BREAKING SESSION ON PHARMACOLOGY OF DYSLIPIDEMIA

Chairs: F. Mach (Switzerland)
A. Tselepis (Greece)

15:45  LDL-C LOWERING AMONG PATIENTS WITH LDL-C ABOVE 4.9 MMOL/L AND FEATURES SUGGESTING A GENETIC VULNERABILITY TO CARDIOVASCULAR DISEASE: ANALYSES FROM THE 4S TRIAL

16:03  METABOLOMIC CONSEQUENCES OF PCSK9 INHIBITION COMPARED WITH STATIN THERAPY
P. Würz, E. Sliz (Finland)

16:21  INCLISIRAN DURABLY LOWERS LDL-C AND PCSK9 EXPRESSION IN SUBJECTS WITH HOMOZYGOUS FAMILIAL HYPERCHOLESTEROLAEMIA: THE ORION-2 PILOT STUDY
F. Raal, N. Lepor, D. Kallend, R. Stoekenbroek, P. Wijngaard, G.K. Hovingh (South Africa)

16:39  SAFETY, TOLERABILITY AND LDL-C REDUCTION WITH A NOVEL ANTI-PCSK9 RECOMBINANT FUSION PROTEIN (LIB003): RESULTS OF A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED, PHASE 2 STUDY

16:57  EFFICACY AND SAFETY OF BEMPEDOIC ACID + EZETIMIBE FIXED-DOSE COMBINATION IN PATIENTS AT HIGH CVD RISK AND WITH ELEVATED LDL-C RECEIVING MAXIMALLY TOLERATED STATIN THERAPY
WORKSHOP: CARDIOVASCULAR RISK ASSESSMENT
FROM EPIDEMIOLOGY TO GENETICS

Chairs: G. de Backer (Belgium)
R. Frikke-Schmidt (Denmark)

15:45 WHAT HAVE WE LEARNED ABOUT CVD RISK FROM GENOME-WIDE ASSOCIATION STUDIES?
H. Schunkert (Germany)

16:05 A MENDELIAN RANDOMIZATION ANALYSIS OF LIPOPROTEIN(a) LOWERING AND CARDIOVASCULAR RISK STRATIFIED BY LDL CHOLESTEROL, GENDER, AND ANTIPLATELET THERAPY: IMPLICATIONS FOR CLINICAL OUTCOME TRIALS
J. Katzmann, U. Laufs, B.A. Ference (Germany)

16:15 LIPOPROTEIN(a) PREDICTS CARDIOVASCULAR EVENTS IN STATIN OUTCOME TRIALS: POOLED ANALYSIS OF SEVEN RANDOMISED CONTROLLED TRIALS

F. Emanuelsson, S. Marott, A. Tybjærg-Hansen, B. Nordestgaard, M. Benn (Denmark)

16:35 PLASMA TRANSTHYRETIN AND RISK OF ALL-CAUSE AND CARDIOVASCULAR MORTALITY IN THE GENERAL POPULATION: TWO PROSPECTIVE COHORT STUDIES
M. Christoffersen, B.G. Nordestgaard, A. Tybjærg-Hansen (Denmark)

16:45 FRAILTY INCREASES THE RISK OF CARDIOVASCULAR EVENTS AMONG DIABETIC PATIENTS: A POPULATION-BASED STUDY
K.Y. Hung, C.T. Chao, J.W. Huang (Taiwan R.O.C.)

16:55 PHENOTYPE, GENOTYPE OR EPIGENETICS?
R. Frikke-Schmidt (Denmark)
15:45 - 17:15 Jacqueline Witteman Hall

WORKSHOP: VASCULAR BIOLOGY IN ATHEROSCLEROSIS

Chairs: L.J. Schurgers (The Netherlands)
A. Newby (United Kingdom)

15:45  SORTILIN IN VASCULAR CALCIFICATION
E. Aikawa (USA)

16:05  CIRCULAR RNAs IN ATHEROSCLEROSIS
TBA

16:25  A DISINTEGRIN AND METALLOPROTEASE ADAM10 CONTROLS ENDOTHELIAL FUNCTIONS IN ATHEROSCLEROSIS

16:35  MICROANATOMY OF ADVANCED HUMAN ATHEROSCLEROTIC PLAQUES THROUGH SINGLE-CELL TRANSCRIPTOMICS

16:45  MUTATED SULFONYLUREA RECEPTOR 1 INDUCES HYPERGLYCEMIA, GLUCOSE INTOLERANCE AND INSTABILE ATHEROSCLEROTIC PLAQUE PHENOTYPE IN LDL-RECEPTOR DEFICIENT MICE
A.K. Ruotsalainen, E. Gurzeler, A. Laine, T. Valkama, M. Laakso, S. Ylä-Herttuala (Finland)

16:55  THE ATYPICAL CADHERIN FAT1 MODULATES SMOOTH MUSCLE CELL METABOLIC PLASTICITY AND LIMITS ATHEROSCLEROSIS
D. Riascos Bernal, C. Dunaway, C. DeMayo, L. Cao, P. Chinnasamy, S. Jayakumar, N. Sibinga (USA)

17:05  DEFICIENCY OF CD40-CD40L SIGNALING IN DCS AND T CELLS ATTENUATES ATHEROSCLEROSIS THROUGH REDUCTIONS IN TH1 POPULATIONS
M. Lacy, N. Gerdes, C. Bürger, H. Winkels, K. Nitz, S. Reim, C. Weber, D. Atzler, E. Lutgens (Germany)
17:15 - 18:45 Exhibition area

WINE AND SCIENCE – POSTER VIEWING SESSION
PLENARY SESSION: PREVENTING CVD RISK: WHERE DO WE STAND?

Chairs: E. Stroes (The Netherlands)
       J. Boren (Sweden)

08:30  BIOMARKERS PREDICTING CVD
       C. Packard (United Kingdom)

08:54  THE GENETIC BURDEN IN CVD
       H. Schunkert (Germany)

09:18  ESTIMATING RISK: WHAT’S NEW?
       I. Graham (Ireland)
       K. Ray (United Kingdom)
       T. Luscher (United Kingdom)

10:30 - 11:00  Exhibition area

COFFEE BREAK, EXHIBITION & POSTER VIEWING

11:00 - 12:15  Anitschkow Hall

ADVANCED CLINICAL SEMINAR: DYSLIPIDAEMIA GUIDELINES: WHAT IS NEW?

Chairs: A. Gotto (USA)
        O. Wiklund (Sweden)

11:00  WHAT IS NEW?
       A.L. Catapano (Italy)
       L. Tokgözoglu (Turkey)
       C.M. Ballantyne (USA)
       M. Taskinen (Finland)

12:00  DISCUSSION
11:00 - 12:15  Marten Hofker Hall

WORKSHOP: NOVEL TARGETS FOR CONTROLLING DYSLIPIDAEMIAS

Chairs: U. Laufs (Germany)
        P. Moulin (France)

11:00  NEW TARGETS FOR CONTROLLING DYSLIPIDAEMIAS
      J.J.P. Kastelein (The Netherlands)

11:20  HEMATOPOIETIC TREM2 DEFICIENCY INCREASES PLASMA
       CHOLESTEROL AND TRIGLYCERIDE LEVELS AND AGGRAVATES
       ATHEROSCLEROSIS
       M. Kiss, F. Porsch, L. Göderle, A. Hladik, S. Knapp, C.J. Binder (Austria)

11:30  FARNESOID X RECEPTOR ACTIVATION LOWERS HDL-C BUT
       INCREASES ABCA1-SPECIFIC SERUM HDL CHOLESTEROL EFFLUX
       CAPACITY
       T. Vaisar, J. Wimberger, A. Irwin, T. Vallim (USA)

11:40  INHIBITION OF HEPATIC BILE SALT UPTAKE TARGETS THE
       MAIN DRIVERS OF ATHEROGENESIS, INFLAMMATION AND
       HYPERCHOLESTEROLEMIA
       R.L. Roscam Abbing, D. Slijepcevic, J.M. Donkers, E. Lutgens,
       R.P.J. Oude Elferink, S. Van De Graaf (The Netherlands)

11:50  TRIPLE TREATMENT WITH ALIROCUMAB AND EVINACUMAB ON
       TOP OF ATORVASTATIN REGRESSES LESION SIZE AND IMPROVES
       PLAQUE PHENOTYPE IN APOE*3LEIDEN.CETP MICE
       M. Pouwer, E.J. Pieterman, N. Worms, N. Keijzer, J.W. Jukema,
       V. Gusarova, J. Gromada, H.M.G. Princen (The Netherlands)

12:00  PROPROTEIN CONVERTASE SUBTILISIN/KEXIN TYPE 9
       ANTIBODIES ATTENUATE ARTERIAL WALL INFLAMMATION IN
       STATIN INTOLERANT PATIENTS IN ABSENCE OF CRP CHANGE
       R. Hoogeveen, T.S.J. Opstal, Y. Kaiser, J. Kroon, R.J.J. Knol, W.A. Bax,
       H.J. Verberne, J.H. Cornel, E.S. Stroes (The Netherlands)
WORKSHOP: HEMATOPOIETIC CELLS AND CVD

11:00 - 12:15  Willem Erkelens Hall

WORKSHOP: HEMATOPOIETIC CELLS AND CVD

Chairs: G.D. Norata (Italy)
       C. Binder (Austria)

11:00  INTERACTION BETWEEN HEMOPOEITIC CELLS AND ENDOTHELium IN VASCULATURE
       L. Iruela-Arispe (USA)

11:20  CLONAL HEMATOPOIESIS IN CARDIOVASCULAR DISEASE STATES
       S. Jaiswal (USA)

11:40  LDL-CHOLESTEROL LOWERING TREATMENT CHANGES HEMATOPOIETIC STEM CELL BEHAVIOR IN FAMILIAL HYPERCHOLESTEROLEMIA PATIENTS
       L. Stiekema, S.S. Zeerleder, C.H. Homburg, C. Voermans, E.S.G. Stroes, J. Kroon (The Netherlands)

11:50  MITOCHONDRIAL DYSFUNCTION IN M2 MACROPHAGES DIFFERENTIATED FROM HUMAN NON-CLASSICAL MONOCYTES IS LINKED TO FOAM CELL FORMATION
       M. Lee, A. Al-sharea, D. Henstridge, J. Hamilton, D. Sviridov, A. Murphy (Australia)

12:00  ADIPOSE TISSUE MACROPHAGES INDUCE HEPATIC NEUTROPHIL RECRUITMENT AND MACROPHAGE ACCUMULATION WITHOUT AFFECTING ATHEROSCLEROSIS DEVELOPMENT IN MICE.
11:00 - 12:15 Jacqueline Witteman Hall

WORKSHOP: CELLULAR CROSSTALK AND PLAQUE STABILITY

Chairs: L. Yvan-Charvet (France)
A. Von Eckardstein (Switzerland)

11:00 GLUCOCORTICOID-INDUCED TUMOR NECROSIS FACTOR RECEPTOR FAMILY-RELATED PROTEIN (GITR) DRIVES ATHEROSCLEROSIS IN MICE AND IS ASSOCIATED WITH AN UNSTABLE PLAQUE PHENOTYPE AND CEREBROVASCULAR EVENTS IN HUMANS

11:10 PRO-CALCIFIC DIFFERENTIATION OF AORTIC INTERSTITIAL VALVE CELLS IS PREVENTED BY TREATMENT WITH L-ARGININE: RESULTS OF A PROTEOMIC STUDY
M. Rattazzi, E. Bertacco, C. Franchin, R. Millioni, E. Faggin, G. Arrigoni (Italy)

11:20 EXTRACELLULAR VESICLES AS NEW PHARMACOLOGICAL TARGETS TO TREAT ATHEROSCLEROSIS
D. de Kleijn (The Netherlands)

11:40 MYELOID PHD2 KNOCKDOWN DRIVES MACROPHAGE APOPTOSIS AND PARACRINE FIBROBLAST/SMOOTH MUSCLE CELL COLLAGEN SECRETION LEADING TO ATHEROSCLEROTIC PLAQUE FIBROSIS

12:00 PCSK9 INDUCES VASCULAR CALCIFICATION UNDER UREMIC CONDITIONS: IN VITRO AND IN VIVO STUDY
N. Ferri, M.G. Lupo, P. Poggio, M. Camera, E. Faggin, M. Rattazzi (Italy)

12:15 - 12:30 Exhibition area

BREAK, EXHIBITION & POSTER VIEWING
12:30 - 14:00  Anitschkow Hall

CME EDUCATIONAL PROGRAMME: PCSK9 INHIBITION: NEW INSIGHTS FROM CLINICAL TRIALS

EAS HAVE INDEPENDENTLY ORGANISED ALL MATTERS RELATED TO THIS SESSION, INCLUDING CONTENT AND PRESENTERS. WE ACKNOWLEDGE FINANCIAL SUPPORT, IN THE FORM OF AN EDUCATIONAL GRANT, RECEIVED FROM INDUSTRY IN SUPPORT OF THE PROGRAMME.

Chairs: L. Tokgozoglu (Turkey)  
J.W. Jukema (The Netherlands)

12:30  INTRODUCTION

12:35  HOW GOOD ARE WE IN REACHING THE GOALS?  
G. de Backer (Belgium)

13:00  PCSK9 INHIBITION IN CLINICAL PRACTICE  
F. Mach (Switzerland)

13:25  A DEEP LOOK TO THE RESULTS OF ODYSSEY OUTCOMES  
J.W. Jukema (The Netherlands)

13:55  CLOSING REMARKS
12:30 - 13:30  Marten Hofker Hall

CME EDUCATIONAL PROGRAMME: THE OMEGA 3 TALE: WHERE DO WE STAND?

EAS HAVE INDEPENDENTLY ORGANISED ALL MATTERS RELATED TO THIS SESSION, INCLUDING CONTENT AND PRESENTERS. WE ACKNOWLEDGE FINANCIAL SUPPORT, IN THE FORM OF AN EDUCATIONAL GRANT, RECEIVED FROM INDUSTRY IN SUPPORT OF THE PROGRAMME.

Chairs: M. Taskinen (Finland)
       H. Ginsberg (USA)

12:30  INTRODUCTION

12:35  OMEGA 3 FATTY ACIDS: BIOLOGICAL FUNCTIONS
       A. Tselepis (Greece)

12:50  OMEGA 3 AND CV BENEFIT A REVIEW OF THE CLINICAL TRIALS
       A.P. Maggioni (Italy)

13:05  REDUCE-IT: AN IN DEPTH ANALYSIS
       C.M. Ballantyne (USA)

13:20  CLOSING REMARKS

12:30 - 13:15  Jacqueline Witteman Hall

INDUSTRY SPONSORED SPECIAL LECTURE (SESSION NOT INCLUDED IN MAIN EVENT CME/CPD CREDIT)
12:30 - 13:30  Willem Erkelens Hall

CME EDUCATIONAL PROGRAMME: FAMILIAL CHYLOMICRONAEMIA SYNDROME: FROM BIOLOGY TO THERAPEUTIC APPROACHES

EAS HAVE INDEPENDENTLY ORGANISED ALL MATTERS RELATED TO THIS SESSION, INCLUDING CONTENT AND PRESENTERS. WE ACKNOWLEDGE FINANCIAL SUPPORT, IN THE FORM OF AN EDUCATIONAL GRANT, RECEIVED FROM INDUSTRY IN SUPPORT OF THE PROGRAMME.

12:30 OPENING REMARKS
12:34 THE METABOLIC ASUSIS OF FCS
   S. Romeo (Sweden)
12:46 THE CLINICAL CONSEQUENCES OF FCS
   D. Gaudet (Canada)
12:58 NOVEL THERAPEUTIC APPROACHES
   TBA
13:10 DISCUSSION
13:25 CLOSING REMARKS
13:45 - 14:45 Willem Erkelens Hall

CME EDUCATIONAL PROGRAMME: NEW APPROACHES TO LDL LOWERING

EAS HAVE INDEPENDENTLY ORGANISED ALL MATTERS RELATED TO THIS SESSION, INCLUDING CONTENT AND PRESENTERS. WE ACKNOWLEDGE FINANCIAL SUPPORT, IN THE FORM OF AN EDUCATIONAL GRANT, RECEIVED FROM INDUSTRY IN SUPPORT OF THE PROGRAMME.

Chairs: A.L. Catapano (Italy)
        J. Boren (Sweden)

13:45 INTRODUCTION

13:50 THE GENETIC EVIDENCE FOR INHIBITING THE CHOLESTEROL SYNTHESIS PATHWAY TO CONTROL LDL CHOLESTEROL
   B. Ference (United Kingdom)

14:05 PHARMACOLOGY OF BEMPEDOIC ACID
   G.D. Norata (Italy)

14:20 CLINICAL EXPERIENCE WITH BEMPEDOIC ACID
   C.M. Ballantyne (USA)

14:35 CLOSING REMARKS

13:45 - 14:30 Marten Hofker Hall

INDUSTRY SPONSORED SPECIAL LECTURE (SESSION NOT INCLUDED IN MAIN EVENT CME/CPD CREDIT)

14:00 - 14:45 Jacqueline Witteman Hall

INDUSTRY SPONSORED SPECIAL LECTURE (SESSION NOT INCLUDED IN MAIN EVENT CME/CPD CREDIT)

15:00 - 15:30 Exhibition area

COFFEE BREAK, EXHIBITION & POSTER VIEWING
15:30 - 17:00  Anitschkow Hall

LATE BREAKING SESSION ON EXPERIMENTAL ATHEROSCLEROSIS AND GENETICS

Chairs: G.M. Dallinga (The Netherlands)  B. Staels (France)

15:30  FUNCTION AND MUTATION OF NETRIN-1 IN PREMATURE ATHEROSCLEROSIS

15:48  A HUMAN-LIKE COMPOSITION OF THE CIRCULATING BILE ACID POOL IMPACTS ON PLASMA LDL CHOLESTEROL IN MICE
J.F. De Boer, H.D. De Vries, A. Palmiotti, R. Li, N.L. Mulder, M.V. Hovingh, M. Koehorst, N.J. Kloosterhuis, V.W. Bloks, B. Van de Sluis, F. Kuipers (The Netherlands)

16:06  A COMMON VARIANT IN THE NLRP3 INFLAMMASOME LOCUS ASSOCIATES WITH MORTALITY

16:24  GENETICS OF HUMAN PLASMA LIPIDOME AND ITS LINK TO DISEASES SUSCEPTIBILITY

16:42  PREMATURE MORBIDITY AND MORTALITY AMONG DIAGNOSED AND POTENTIALLY UNDIAGNOSED FAMILIAL HYPERCHOLESTEROLEMIA PATIENTS IN THE GENERAL POPULATION: AN OBSERVATIONAL STUDY OF OVER 1.7 MILLION HEALTH RECORDS
15:30 - 17:00  Jacqueline Witteman Hall

WORKSHOP: VASCULAR AGEING

Chairs: M. Vrablik (Czech Republic)
        C. Giovanni (Switzerland)

15:30  MOLECULAR MARKERS OF VASCULAR AGING
       M. Sieweke (Germany)

15:50  INHIBITION OF MICRORNA-494 HALTS ATHEROSCLEROTIC
       PLAQUE PROGRESSION AND STABILIZES ADVANCED
       ATHEROSCLEROTIC LESIONS
       E. Van Ingen, A. Foks, M. Kröner, J. Kuiper, P. Quax, I. Bot, Y. Nossent
       (The Netherlands)

16:00  INHIBITION OF LYSOSOMAL OXIDATION OF LDL PREVENTS
       LYSOSOMAL DYSFUNCTION, CELLULAR SENESCENCE, SECRETION
       OF PRO-INFLAMMATORY CYTOKINES IN HUMAN MACROPHAGES
       AND REDUCES ATHEROSCLEROSIS IN MICE
       F. Ahmad, D. Leake (United Kingdom)

16:10  DISRUPTION OF THE BIOLOGICAL CLOCK AFFECTS IMMUNE
       HOMEOSTASIS AND AGGRAVATES ATHEROSCLEROSIS DEVELOPMENT
       M. Schilperoort, R. Van den Berg, L. Van Kerkhof, M. Dollé, D. Van
       Baarle, T. Guichelaar, N. Smits, M. De Vries, N. Biermasz, S. Kooijman,
       P. Rensen (The Netherlands)

16:20  THE AGING CARDIOVASCULAR SYSTEM
       G.G. Camici (Switzerland)

16:40  VARIATION IN Lp(a) AND CALCIFIC AORTIC VALVE STENOSIS IN
       PATIENTS UNDERGOING CARDIAC SURGERY AND FAMILIAL RISK
       OF AORTIC VALVE MICROCALCIFICATION
       N. Perrot, S. Thériault, C. Dina, H.Y. Chen, M. Boekholdt, S. Rigade,
       A.A. Després, A. Poulin, R. Capoulade, T. Le Tourneau, D. Messika-
       Zeitoun, J. Engert, M. Dweck, P. Mathieu, P. Pibarot, J.J. Schott,
       G. Thanassoulis, M.A. Clavel, Y. Bossé, A. Benoit (Canada)

16:50  GENETIC RISK LOCI FOR AAA ARE ASSOCIATED WITH
       INFLAMMATORY BIOMARKERS WITHIN THE ANEURYSM-EXPRESS
       BIOBANK STUDY
       C. Van Laarhoven, D.P. De Kleijn, J.A. Van Herwaarden, G.J. De Borst,
       S.W. Van der Laan (The Netherlands)
15:30 - 17:00 Willem Erkelens Hall

**WORKSHOP: LIPOPROTEINS AND IMMUNITY**

Chairs: C. Binder (Austria)
        E. Lutgens (The Netherlands)

15:30 **B CELL UPTAKE OF MODIFIED LDL RESULTS IN MODULATION OF B CELL ACTIVATION AND FUNCTIONS**
T. Waseem, Wassem, C. Keeter, A. Moriarty, C. Fernandez-Hernando, E. Galkina (USA)

15:40 **HYPERCHOLESTEROLEMIA PROMOTES A MAST CELL-CD4+ T-CELL INTERACTION IN ATHEROSCLEROSIS**
I. Bot, E. Kritikou, T. Van der Heijden, M. Swart, J. Van Duijn, B. Slütter, A. Wezel, H. Smeets, P. Maffia, J. Kuiper (The Netherlands)

15:50 **IMMUNE CHECKPOINTS IN ATHEROSCLEROSIS / T-CELLS**
E. Lutgens (The Netherlands)

16:10 **CONTINUOUS TCR SIGNALING IN THE ATHEROSCLEROTIC ENVIRONMENT INDUCES IMMUNOMODULATORY CD8+ T-CELLS EXPRESSING CD39**
J. Van Duijn, M. Van Elsas, N. Benne, M. Depuydt, A. Wezel, H. Smeets, I. Bot, W. Jiskoot, J. Kuiper, B. Slütter (The Netherlands)

16:20 **ENGINEERED REGULATORY T CELL ADOPTIVE THERAPY AS A NOVEL TOOL FOR THE TREATMENT OF ATHEROSCLEROSIS**

16:30 **ENDOTHELIAL ATYPICAL CHEMOKINE RECEPTOR-3 IS A NOVEL DRIVER OF ATHEROSCLEROSIS**
S. Gencer, E. Van der Vorst, Y. Jansen, M. Bianchini, L. Peters, M. Müller, S. Bayasgalan, R. Megens, O. Söhnlein, Y. Döring, C. Weber (Germany)

16:40 **MYELOID INTERFERON REGULATORY FACTOR 8 DEFICIENCY PREVENTS THE DEVELOPMENT OF ATHEROSCLEROSIS**
R. Louie, M. Gage, A. Patel, S. Yona, A. Castrillo, I. Pineda-Torra (United Kingdom)

16:50 **A LIVER X-RECEPTOR-HYPOXIA INDUCIBLE FACTOR 1α INTERPLAY POTENTIATES INTERLEUKIN-1β PRODUCTION IN HUMAN MACROPHAGES.**
L. Ménégaut, C. Thomas, A. Jalil, E. Steinmetz, M. David (France)
15:30 - 17:00 Marten Hofker Hall

ADVANCED CLINICAL SEMINAR: APO B CONTAINING LIPOPROTEINS IN ATH

Chairs: P. Parini (Sweden)  
E. Ros (Spain)

15:30 NOVEL INSIGHTS INTO LDL CLEARANCE IN MICE AND HUMANS  
N. Zelcer (The Netherlands)

15:50 REMANT TRL AND ATHEROSCLEROSIS  
C.M. Ballantyne (USA)

16:10 DISCUSSION

17:00 - 18:30 Exhibition area

WINE AND SCIENCE – POSTER VIEWING SESSION

17:15 - 17:45 Martin Hofker Hall

EAS MEMBERS’ ASSEMBLY  
(MEMBERS ONLY)
WEDNESDAY, MAY 29, 2019

07:30 - 08:30 Jacqueline Witteman Hall

INDUSTRY SPONSORED BREAKFAST SYMPOSIUM
(SESSION NOT INCLUDED IN MAIN EVENT CME/CPD CREDIT)

08:30 - 10:30 Anitschkow Hall

PLENARY SESSION: LOOKING TO THE FUTURE – NOVEL TREATMENT STRATEGIES: THE IMMUNE SYSTEM

Chairs: C. Binder (Austria)
A.L. Catapano (Italy)

08:30 SYSTEM-LEVEL ANALYSES OF INFLAMMATORY AND REPAIR MACROPHAGES REVEAL AN INTEGRATED CIRCUITRY OF LIPID AND EPIGENOMIC CHANGES
L. Nagy (USA)

09:00 THE IMMUNE SYSTEM: THE NEXT GAME-CHANGER?
M. Nahrendorf (USA)

09:30 NEW LIPID DRUGS: IS LDL DONE, READY FOR NEW TARGETS?
E. Stroes (The Netherlands)

10:00 THE HDL STORY: TIME TO RECONSIDER?
J. Chapman (France)

10:30 - 11:00 Exhibition area

COFFEE BREAK, EXHIBITION & POSTER VIEWING
ADVANCED CLINICAL SEMINAR: DEBATE ON LP(a)

Chairs: J. Chapman (France)
F. Kronenberg (Austria)

11:00  DON’T TREAT HIGH Lp(a)
B. Ference (United Kingdom)

11:20  TREAT Lp(a)
S. Tsimikas (USA)

11:40  DEBATE
11:00 - 12:15  Marten Hofker Hall

WORKSHOP: METABOLIC DYSFUNCTION AND CVD

Chairs: P. Rensen (The Netherlands)
        J. Heeren (Germany)

11:00  BROWN FAT TO COMBAT CARDIOVASCULAR DISEASE
       P. Rensen (The Netherlands)

11:20  IMPACT OF DIETARY CHOLINE ON ATHEROSCLEROSIS
       DEVELOPMENT IN CONVENTIONALLY RAISED APOE-KO MICE
       EXPRESSING DIFFERENT LEVELS OF APOA-I
       M. Busnelli, S. Manzini, M. Conti, G. Chiesa (Italy)

11:30  IMMUNE RECEPTORS NUCLEOTIDE-BINDING OLGOMERIZATION
       DOMAIN-CONTAINING PROTEINS (NOD)1 AND 2 ARE REGULATORS
       OF CHOLESTEROL METABOLISM AND AHEROGENESIS
       A.K. Vlacil, H. Schuett, J. Schuett, V. Ruppert, M. Soufi, R. Oberoi,
       U. Tietge, B. Schieffer, K. Grote (Germany)

11:40  GUT MICROBIOME AND CARDIOASCULAR DISEASE: FROM
       PROMISE TO DELIVERY
       M. Nieuwdorp (The Netherlands)

12:00  NEW MECHANISTIC INSIGHT INTO THE ROLE OF IRON IN
       CVD: NON-TRANSFERRIN BOUND IRON EXACERBATES
       ATHEROSCLEROSIS BY INDUCING VASCULAR CELL APOPTOSIS
       AND MASSIVE MONOCYTE RECRUITMENT
       F. Vinchi, G. Porto, A. Simmelbauer, S. Altamura, S. Passos,
       M. Garbowsky, A.N. Silva, S. Speich, S. Seide, R. Sparla, M.W. Hentze,
       M.U. Muckenthaler (USA)
WORKSHOP: OMICS IN PREDICTING CV RISK

Chairs: J. Borén (Sweden)
        W. März (Germany)

11:00   SHOT-GUN PROTEOMICS TO ASSESS VULNERABLE PLAQUES AND FUTURE CV RISK
        E. Levin (The Netherlands)

11:20   DECODING THE NON-CODING GENOME TO UNDERSTAND CARDIOVASCULAR DISEASE
        K. Rayner (Canada)

11:40   UNRAVELLING THE STRUCTURE-FUNCTION-RELATIONSHIPS OF HIGH DENSITY LIPOPROTEINS (HDL) BY A SYSTEMS BIOLOGICAL APPROACH

11:50   MAPPING GENES TO CARDIOVASCULAR SUSCEPTIBILITY LOCI AT A SINGLE-CELL RESOLUTION

12:00   THE MACROSCREEN PLATFORM: SENSING CARDIOVASCULAR DISEASE ASSOCIATED MICROENVIRONMENT
        L. Temmerman, M. Fontaine, M. Rouch, L. Schurgers, G. Andersen, B. Halvorsen, E. Biessen (The Netherlands)
11:00 - 12:15
Jacqueline Witteman Hall

WORKSHOP: CELLULAR METABOLISM IN ATHEROSCLEROSIS AND DIABETES

Chairs: M. Bennett (United Kingdom)
N. Riksen (The Netherlands)

11:00 MITOCHONDRIAL FUNCTION IN ATHEROSCLEROSIS
M. Bennett (United Kingdom)

11:20 STIMULATING ENERGY METABOLISM TO COMBAT TYPE 2 DIABETES; INSIGHT FROM HUMAN TRANSLATIONAL INTERVENTIONS
P.A.J. Schrauwen (The Netherlands)

11:40 INHIBITION OF ENDOPLASMIC RETICULUM STRESS AS A POTENTIAL THERAPY TO LIMIT THE PROGRESSION OF AAA AND HYPERTENSIVE HEART DISEASE
M. Consegal Pérez, M. Navas-Madroñal, J. Martínez-González, C. Rodríguez, M. Galán (Spain)

11:50 PARTIAL INHIBITION OF THE KEY GLYCOLYTIC ENZYME PFKFB3 IN MYELOID CELLS IMPACTS WHOLE-BODY IMMUNE CELL AND LIVER METABOLISM, BUT NOT ATHEROGENESIS.

12:00 ATHEROREGRESSIVE POTENTIAL OF AZAPEPTIDES ANALOGUES OF GHRP-6 AS SELECTIVE CD36 LIGANDS IN APOLIPOPROTEIN E-DEFICIENT MICE
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AND EXHIBITORS
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Booth #: 09
https://akceatx.com/
Akcea Therapeutics, Inc., an affiliate of Ionis Pharmaceuticals, Inc. is a biopharmaceutical company focused on developing and commercializing drugs to treat patients with serious and rare diseases. Akcea is advancing a mature pipeline of six novel drugs, including TEGSEDI™ (inotersen), WAYLIVRA™ (volanesorsen), AKCEA-APO(a)-LRx, AKCEA-ANGPTL3-LRx, AKCEA-APOCIII-LRx, and AKCEA-TTR-LRx, all with the potential to treat multiple diseases. All six drugs were discovered by and are being co-developed with Ionis, a leader in antisense therapeutics, and are based on Ionis’ proprietary antisense technology. TEGSEDI is approved in the U.S., E.U. and Canada. WAYLIVRA is under regulatory review for the treatment of familial chylomicronemia syndrome, or FCS, and is currently in Phase 3 clinical development for the treatment of people with familial partial lipodystrophy, or FPL. Akcea is building the infrastructure to commercialize its

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https://www.alexion.com
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The European Atherosclerosis Society (EAS) goal is to provide a framework for concerted scientific and clinical discussion of new developments in basic research, diagnosis and therapy pf atherosclerosis. EAS is active in the publication of Guidelines and Consensus Position Papers and its official Journal is Atherosclerosis. Through a regular series of Featured Commentaries EAS puts into perspective topical issues of relevance to our members. The Society organizes an annual Congress for approx 2500 delegates, and runs a programme of Advanced Courses for both basic scientists and clinicians. EAS Academy is the Society’s online e-Learning resource, containing a range of educational material and self-teaching programmes.

INTERNATIONAL ATHEROSCLEROSIS SOCIETY
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EXHIBITION

EXHIBITION MAP

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CASH BAR

E-POSTER AREA

MECC Café

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<th>Company Name</th>
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