



PROGRAM

16th European Meeting on COMPLEMENT IN HUMAN DISEASE

September 8th - 12th, 2017
Copenhagen, Denmark
www.emchd2017.dk

Welcome Note

It is a great pleasure and honor to invite you to Wonderful Copenhagen to the 16th European Meeting on Complement in Human Disease, from September 8th - 12th, 2017.

The meeting is organized on behalf of the European Complement Network Organization.

The complement system is a rapidly growing field within immunology and the meeting will focus on how basic complement research findings are translated into clinical medicine.

This meeting is four days of scientific sessions on cutting edge results related to complement and it serves as a platform to discuss and promote the latest research, diagnostics and treatment of complement dependent pathophysiology.

Our 350 attendees are international top researchers, doctoral students as well as leaders of diagnostic laboratories and physicians.

On behalf of the organizing committee I am looking forward to a productive and memorable meeting with you all.

**Professor Peter Garred,
Chairman of EMCHD2017**

Organizing Committee

Peter Garred, Chairman

Professor
Rigshospitalet and University of Copenhagen

Anna Blom

Professor
University of Lund, Malmö

Mikkel-Ole Skjoedt

Senior Scientist
Rigshospitalet and University of Copenhagen

Anne Rosbjerg

PhD. Student
Rigshospitalet and University of Copenhagen

Katarine Pilely

PhD. Student
Rigshospitalet and University of Copenhagen

Ninette Genster

Post Doc.
Rigshospitalet and University of Copenhagen

Rafael Bayarri Olmos

PhD. Student
Rigshospitalet and University of Copenhagen

Ying Jie Ma

As. Professor
Rigshospitalet and University of Copenhagen

Berrit Rasmussen

Conference Secretary
The Meeting Planners

Congress Venue

The meeting will take place at the Hotel Scandic Copenhagen for all days.
Hotel website: www.scandichotels.com/Denmark/Copenhagen

Registration desk opening hours

Friday September 08th, 13:00 - 16:30 (if you are attending the City Hall reception, please pick up during this registration hour to pick up your name badge and entrance tickets to Tivoli)
Saturday September 09th, 08:00 - 14:30
Sunday September 10th, 07:30 - 18:00
Monday September 11th, 07:30 - 17:00
Tuesday September 12th, 07:30 - 16:00

Wifi access in Scandic Copenhagen

Network name: Scandic_easy

Select the network, open a browser and you will see a log-in page. Log in with your name and telephone number. No password is required.

Lunch and refreshments

Lunch and coffee servings are included in the registration fees and served during the congress period (September 09 -12). The serving time can be found in the detailed program.

Badges

Name badge is required for accessing lectures, lunch and coffee servings, exhibition area and social events. Please wear your name badge throughout the conference.

City information

Official tourist information site: www.visitcopenhagen.com
Insider's guide to Copenhagen: <http://www.aok.dk/english>
Plan your trip in Copenhagen: <http://www.journeyplanner.dk/>

Emergency contacts

Emergency: 112 Police emergency: 114
Medical assistance: 118 Copenhagen Police: +45 3314 8888

Congress agency

The Meeting Planners
www.meetingplanners.dk
reg@meetingplanners.dk
Telephone: +45 6021 7421

Abstract and poster number

Abstracts are marked with a number. You can find the abstracts and posters by referring this number (writing as "(xx)") in abstract book and poster sessions.

Poster Session

All posters can be mounted from 07:30 on Sunday September 10th and dismantled from 16:30 on Monday September 11th. ALL posters will be displayed in Room 12 - 15 during Sunday morning to Monday afternoon and all delegates have full access to the poster room during this period of time.

There are 2 time slots designated for Poster Sessions:

Poster Session I: 14:45 - 16:45, Sunday September 10th

Poster Session II: 14:45 - 16:30, Monday September 11th

You can find the list of authors and abstract titles designated for each sessions:

Poster Session I: Page 26 - 27

Poster Session II: Page 30 - 33

Opening Ceremony at the City Hall by the Lord Mayor and the Dean

Date/Time: 17:00-19:00, September 8th

Address: Rådhuspladsen 1, 1550 Copenhagen V

Transportation: 5 minute walk from Scandic Copenhagen Hotel

Tivoli Garden: Including entrance to Tivoli Garden after the ceremony
for paying delegates

(If you have signed up for this event, please pick up your name badge and entrance ticket to Tivoli from Registration Desk on Friday during 13:00 - 16:30)

Optional Dinner at Brew Pub

Date/Time: 19:00, September 09th

Address: Vestergade 29, 1456 Copenhagen K

Transportation: 10 minutes walk from Scandic Copenhagen Hotel

Badge: Please remember to bring your conference name badge

Conference Dinner at Odd Fellow Manor

Date/Time: 19:00, September 11th

Address: Bredgade 28, 1260 Copenhagen K

Transportation: 17:30, EMCHD provides bus transfers from conference venue
to Kalvebod Bølge pier

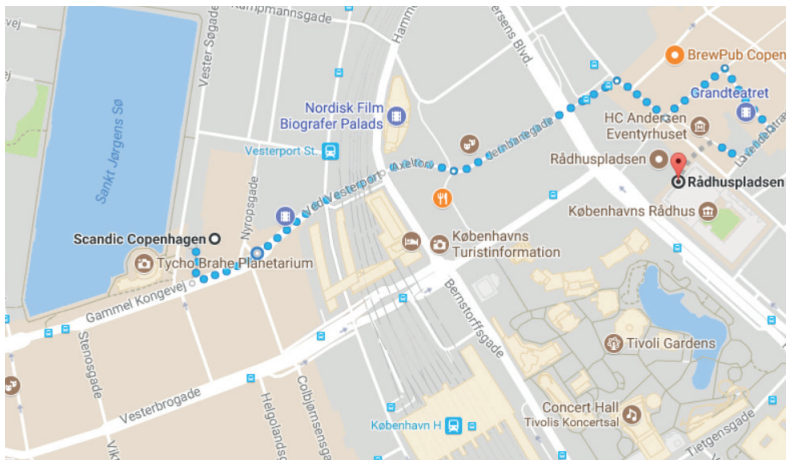
18:00, Copenhagen canal tour, ending tour at Amalienborg

18:50, Walk from Amalienborg to Odd Fellow Manor

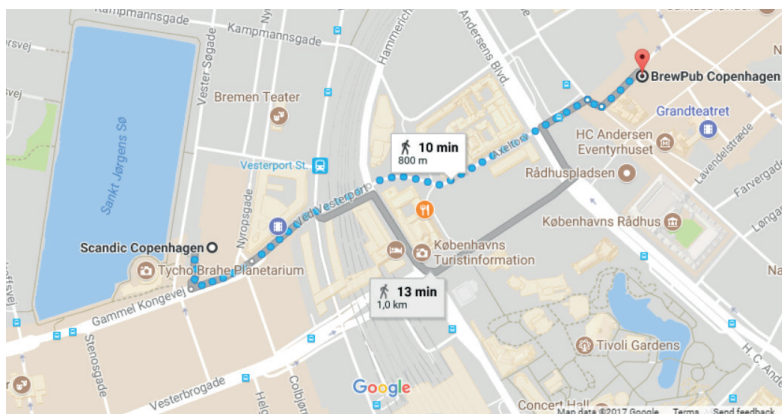
Badge: Please remember to bring your conference name badge

The evening program is not supported by the industry

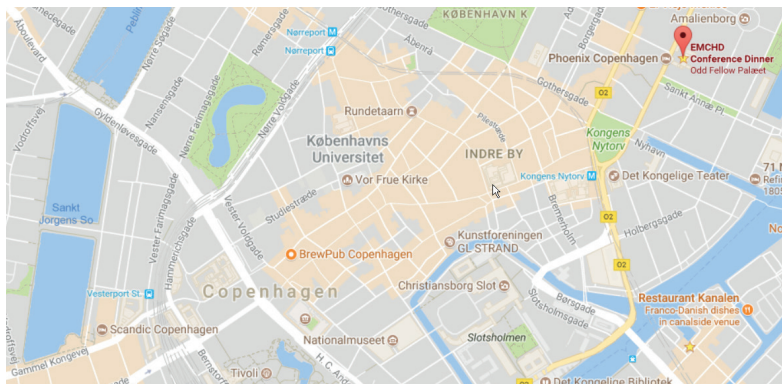
Walking route from Scandic Copenhagen to City Hall



Walking route from Scandic Copenhagen to Brew Pub



Conference Dinner: Odd Fellow Manor (Bredgade 28, DK-1260 Copenhagen)



Friday, September 8th 2017, Copenhagen, Denmark

Hotel Scandic Copenhagen, Vester Søgade 6, 1601 Copenhagen, Denmark

- 08:20-09:25 Renal Pathology: What it does and does not tell us
Facilitator: Matthew Pickering
- 09:25-10:30 Biomarkers and Mechanisms
Facilitator: Marina Noris
- 11:00-12:05 The relevance of the glycomatrix to C3G
Facilitator: Johan Van der Vlag
- 13:15-14:45 Clinical Phenotype: Challenges and messages from the clinic
Facilitator: Gerald Appel
- 15:00-17:00 Treatment Strategies
Facilitator: Richard Smith

C3G Satellite Meeting details can be found on www.emchd2017.dk

September 9

Part I **Open to all ECMHD participants.**

- 09:00 - 09:30 Introduction to the complement system
Teacher: Tom Eirik Mollnes
- 09:35 - 09:55 Complement as a recognition molecule system
Teacher: Suzan Rooijackers
- 10:00 - 10:20 Role of complement in the control of infections and autoimmune diseases: Lessons learned from complement deficiencies
Teacher: Francesco Tedesco
- 10:25 - 10:45 Complement regulation and clinical consequences of regulatory deficiencies
Teacher: Santiago Rodriguez de Cordoba
- 10:50 - 11:10 The cross-talk of complement with other biological systems: focus on hemostasis
Teacher: Bo Nilsson
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- 11:15 - 11:30 Coffee break
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- 11:30 - 12:00 Analyses of complement in routine and research
Teacher: Michael Kirschfink
- 12:05 - 12:25 Models to study the role of complement in vivo
Teacher: Matthew Pickering
- 12:30 - 12:55 The intracellular complement system – a new area
Teacher: Claudia Kemper
- 13:00 - 13:20 The history on complement “in brief” – from 1880 to 2017
Teacher: Seppo Meri
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- 13:30 - 14:15 Lunch (light lunch packet)
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- 19:00 **Optional dinner at Restaurant Brew Pub**

Part II

**Group discussions – meet the experts
(Only for pre-registered attendees)**

6 topics run twice, i.e. each student can attend 2 topics.

6 parallel sessions

14:15 - 15:30

Coffee break and change of section for the students

15:30 - 15:45

6 parallel sessions

15:45 - 17:00

Topics:

1. Genetics and complement deficiencies
Teachers: Veronique Fremeaux-Bacchi and Paul Morgan
2. Regulation of complement
Teachers: Anna Blom and Leendert Trouw
3. Complement methods and diagnostics
Teachers: Michael Kirschfink and Bo Nilsson
4. Complement and infectious defense
Teachers: Suzan Rooijackers and Seppo Meri
5. Complement kidney diseases
Teachers: Mohamed Daha and Matthew Pickering
6. Complement Therapeutics
Teachers: Reinhard Wuerzner and Sakari Jokiranta

07:30 - 08:30 **Breakfast served in the conference foyer
Poster mountings (Room 12-15)**

08:30 - 08:40 Welcome notes by Chairman of the conference

SESSION 1 KEYNOTE SPEECH

Chair: Peter Garred

08:40 - 09:15 **Oluf Borbye Pedersen**, University of Copenhagen (Denmark):
Is dysbiosis of the intestinal microbiota a pathogenic mediator
in common chronic disorders?

SESSION 2 FUNCTION

Chair: Seppo Meri and Anne Rosbjerg

09:15 - 09:30 **(59) Rasmus Pihl**, Aarhus University, Aarhus (Denmark):
Analysis of Factor D isoforms in 3MC patients

09:30 - 09:45 **(49) Sarah Irmischer**, Leibniz Institute for Natural Product
Research and Infection Biology, Jena (Germany): Kallikrein
represents an independent complement activator

09:45 - 10:00 **(56) Xiaobo Wu**, Washington University School of Medicine,
St Louis, Missouri (United States): Contribution of Adipose-
derived Factor D to AP Complement Activation

10:00 - 10:15 **(50) Éva Kárpáti**, Eötvös Loránd University, Budapest
(Hungary): Interaction of factor H-related proteins with DNA
and dead cells

10:15 - 10:30 **(57) Nicole Schäfer**, University Hospital Regensburg,
Regensburg (Germany): FHR-3 drives RPE cells towards pro-
inflammation

10:30 - 11:00 Coffee and Exhibition

SESSION 3 COMPLEMENT CROSS-TALK

Chair: Robert Rieben and Ying Jie Ma

11:00 - 11:15 **(37) Marina Noris**, IRCCS - Istituto di Ricerche Farmacologiche
"Mario Negri", Ranica (Italy): Interaction between multimeric
VWF and complement

11:15 - 11:30 **(30) Daniel Ricklin**, University of Basel, Basel (Switzerland):
C4a acts as effector by signaling via PAR1/4

- 11:30 - 11:45 **(38) Bálint Kovács**, Institute for Systemic Inflammation Research; University of Lübeck, Lübeck (Germany): C5a/C5aR1 axis in autoimmune EBA
- 11:45 - 12:00 **(32) Nathalie Niyonzima**, Norwegian University of Science and Technology, Trondheim (Norway): The intracellular C5 system controls sterile inflammation in human monocytes
- 12:00 - 12:15 **(41) Erin E. West**, NHLBI/National Institutes of Health, Bethesda (United States): Auto-regulation of Th1 responses through carboxypeptidase M-generated C5a-desArg
- 12:15 - 12:30 **(40) Ben C King**, Lund University, Lund (Sweden): CD59 is required for insulin secretion from beta cells
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- 12:30 - 13:30 Lunch and Exhibition
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LUNCH SEMINAR

Chair: Peter Garred

- 12:30 - 13:30 **Camille L. Bedrosian**, Alexion Pharmaceuticals Inc (United States): Complement and Refractory Generalized Myasthenia Gravis

SESSION 4 INFLAMMATION

Chair: Leendert Trouw and Katrine Pilely

- 13:30 - 13:45 **(02) Myriam Martin**, Lund University, Lund (Sweden): Plasma C4d as marker for lupus nephritis in SLE
- 13:45 - 14:00 **(96) Ninette Genster**, University of Copenhagen, Copenhagen (Denmark): Ficolins do not alter immune responses to lipopolysaccharide-induced inflammation
- 14:00 - 14:15 **(97) Nicolas Merle**, Sorbonne Universités, Paris (France): Intravascular hemolysis induces complement system activation
- 14:15 - 14:30 **(105) Corinna Lau**, Research laboratory, Bodø (Norway): E.coli-induced phosphokinetics in whole blood
- 14:30 - 14:45 **(143) José Halperin**, Brigham and Women's Hospital (USA): Blood glycated CD59 (GCD59) predicts pregnancy-induced glucose intolerance

14:45 - 16:45 **Coffee, Exhibition and Poster Session I**

(please see Page 26 - 29 for the abstracts that will be presented in Poster Session I)

SESSION 5 THERAPY

Chair: Carl-Wilhelm Vogel and Mikkel-Ole Skjoedt

- 16:45 - 17:00 **(91) Nirmal K. Banda**, University of Colorado Anschutz Medical Campus, Denver, Colorado (United States): RNAi Therapeutic target arthritis
- 17:00 - 17:15 **(145) Alonso Ricardo**, Ra Pharmaceuticals, Cambridge, Massachusetts (United States): RA101495 abolishes residual hemolysis observed in the presence of eculizumab
- 17:15 - 17:30 **(172) Baerbel Rohrer**, Medical University of South Carolina (United States): Long-term delivery options for complement therapeutics
- 17:30 - 17:45 **(168) Mingjun Huang**, Achillion Pharmaceuticals, New Haven, Connecticut (United States): Small molecule complement factor D inhibitor ACH-4471
- 17:45 - 18:00 **(171) Yi Yang**, Newcastle University, Newcastle (United Kingdom): Improved function of new mini-FH constructs in experimental kidney disease

07:30 - 08:30 Coffee/tea serves in the conference foyer

SESSION 6 KEYNOTE SPEECH

Chair: Tom Eirik Mollnes

08:30 - 08:35 Introduction

08:35 - 09:15 **Piet Gros**, Utrecht University (The Netherlands): New opportunities in structural biology using cryo-electron microscopy

SESSION 7 STRUCTURE AND REGULATION

Chair: Santiago Rodriguez de Cordoba and Rafael Bayarri Olmos

09:15 - 09:30 **(157) József Dobó**, Institute of Enzymology, Research Centre for Natural Sciences, Budapest (Hungary): MASP-3 is mostly active in resting blood

09:30 - 09:45 **(164) Rasmus Kjeldsen Jensen**, Aarhus University, Aarhus (Denmark): A novel nanobody inhibitor of the alternative pathway

09:45 - 10:00 **(158) Christoph Q. Schmidt**, Ulm University, Ulm (Germany): FHL-1 contributes substantially to alternative pathway regulation

10:00 - 10:15 **(163) Dennis V. Pedersen**, Aarhus University, Aarhus (Denmark): Structural and functional studies of human complement factor P

10:15 - 10:30 **(57) Gaboriaud Christine**, Institut de Biologie Structurale, Univ. Grenoble Alpes, Grenoble (France): C1R and C1S mutations in periodontal Ehlers-Danlos syndrome

10:30 - 11:00 Coffee and Exhibition

SESSION 8 CARDIOVASCULAR DISEASES

Chair: Bo Nilsson and Paul Morgan

11:00 - 11:15 **(24) Katrine Pilely**, University of Copenhagen, Copenhagen (Denmark): Pentraxins PTX3 and CRP recruit C1q to cholesterol crystals

11:15 - 11:30 **(29) Mai Abd El Hafez**, Graduate School for Cellular and Biomedical Sciences, Bern (Switzerland): Effect of over expression of hCD46 on I/R injury

- 11:30 - 11:45 **(21) Mikkel-Ole Skjoedt**, University of Copenhagen, Copenhagen (Denmark): Lectin and alternative pathway inhibition attenuates ischemia/reperfusion injuries
- 11:45 - 12:00 **(22) Terje Espevik**, Norwegian University of Science and Technology, Trondheim (Norway): Complement activation controls the NLRP3 inflammasome pathway in atherosclerosis
- 12:00 - 12:15 **(26) Sylwia Wasiak**, Resverlogix Corp, Calgary (Canada): BET inhibitor apabetalone (RVX-208) downregulates the complement cascade
- 12:15 - 12:30 **(27) Hilde Orrem**, Oslo University Hospital, Oslo (Norway): IL-6R-inhibition attenuates complement anaphylatoxin receptors
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- 12:30 - 13:30 Lunch and Exhibition
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SESSION 9

GENETICS AND NEUROLOGICAL DISEASES

Chair: Veronique Fremeaux-Bacchi and Ninette Genster

- 13:30 - 13:45 **(167) Simon J. Clark**, University of Manchester, Manchester (United Kingdom): Bruch's membrane permeability: Implications for translational medicine in AMD
- 13:45 - 14:00 **(64) A. Inkeri Lokki**, University of Helsinki, Helsinki (Finland): Genetic association of complement receptors to preeclampsia
- 14:00 - 14:15 **(65) Rossella Piras**, Istituto di Ricerche Farmacologiche Mario Negri, Clinical Research Center for Rare Diseases Aldo e Cele Daccò, Ranica (Italy): CFH and CFH-Related rearrangements in aHUS, C3G and IC-MPGN
- 14:15 - 14:30 **(137) Maria-Grazia De Simoni**, DIRCCS-Istituto di Ricerche Farmacologiche Mario Negri, Milan (Italy): MBL and vascular injury in cerebral ischemia
- 14:30 - 14:45 **(143) Trent Woodruff**, School of Biomedical Sciences, The University of Queensland, St Lucia (Australia): C5aR1 and C3aR sculpt the brain during development

14:45 - 16:30 **Coffee, Exhibition and Poster Session II**

(please see Page 30 - 33 for the abstracts that will be presented in Poster Session II)

Program - September 11

16:30 - 17:30 Poster dismantling

Boat tour and conference dinner

17:30 *Meet at hotel lobby for the bus transfer to boat pier*

18:00 *Copenhagen canal boat tour. Tour ends at Amalienborg pier*

19:00 *Dinner at Odd Fellow Manor & ECN Medal Awards*

07:30 - 08:30 Coffee/tea serves in the conference foyer

SESSION 10 LATE BREAKING

Chair: Peter Zipfel

08:30 - 08:35 Introduction

08:35 - 09:15 **(194) Dror Mevorach**, Hadassah-Hebrew University, Jerusalem (Israel): What can we learn from Diseases Associated with a Loss of Function of Membrane Complement Regulators? (Abstract can be found in program book page 36)

SESSION 11 INFECTIOUS DISEASES

Chair: Reinhard Würzner and Claire Harris

09:15 - 09:30 **(82) Antonio Inforzato**, Humanitas Clinical and Research Center, Rozzano (Italy): Cooperation between PTX3 and factor H against *Aspergillus fumigatus*

09:30 - 09:45 **(73) Ilse Jongerius**, National Institute for Public Health and the Environment, Utrecht (The Netherlands): Complement consumption by Vag8

09:45 - 10:00 **(74) Thiago Frreira de Araujo Rosa**, Institute of Zoology, RWTH Aachen University, Aachen (Germany): Complement evasion by the infective sporozoite stages of *Plasmodium falciparum*

10:00 - 10:15 **(79) Bart Bardoel**, University Medical Center Utrecht, Utrecht (The Netherlands): Complement sensitizes Gram-negative bacteria for Gram-positive-specific antibiotics

10:15 - 10:30 **(77) Dani Heesterbeek**, University Medical Center Utrecht, Utrecht (The Netherlands): The role of convertases in MAC dependent killing of bacteria

10:30 - 11:00 Coffee and Exhibition

SESSION 12 INFECTIOUS AND KIDNEY DISEASES

Chair: Zoltán Prohászka and Daniel Ricklin

11:00 - 11:15 **(80) David Ermert**, Lund University, Lund (Sweden): C4BP binding to *S. pyogenes* is enhanced through IgG

11:15 - 11:30 **(85) Anna E. van Beek**, University of Amsterdam, Amsterdam (The Netherlands): Complement factor H and FH-related proteins in invasive bacterial infections

Program - September 12

- 11:30 - 11:45 **(115) Weiju Wu**, King's College London, London (United Kingdom): Human C5aR1 enhances bacterial adhesion to renal tubular epithelium
- 11:45 - 12:00 **(113) Lubka T. Roumenina**, Centre de Recherche des Cordeliers, Paris (France): Atypical hemolytic uremic syndrome – why the kidney?
- 12:00 - 12:15 **(121) Talat H. Malik**, Imperial College London, London (United Kingdom): Mouse FHRB interacts with renal-bound C3 in vivo
- 12:15 - 12:30 **(128) Kate Smith-Jackson**, Newcastle University, Newcastle (United Kingdom): Treatment of the C3 GOF mouse model of aHUS
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- 12:30 - 13:30 Lunch and Exhibition
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SESSION 13 KIDNEY DISEASES

Chair: Mohamed Daha and Matthew Pickering

- 13:30 - 13:45 **(116) Sophie Chauvet**, Cordelier Research Center, Paris (France): C3 glomerulopathie and monoclonal gammopathy
- 13:45 - 14:00 **(124) Paraskevas Iatropoulos**, Clinical Research Center for Rare Diseases Aldo e Cele Daccò, Ranica (Italy): Unravelling the pathophysiology of C3G/IC-MPGN and predicting outcome
- 14:00 - 14:15 **(114) Yuzhou Zhang**, University of Iowa, Iowa City (United States): Activation of Alternative Complement Pathway without Complement Factor D
- 14:15 - 14:30 **(181) Felix Poppelaars**, University Medical Center Groningen, Groningen (The Netherlands): C4 deficiency protects against BD-induced renal injury
- 14:30 Awards, President's Remark, Presentation of Next Meetings and Farewell Notes