

# CMMC ANNUAL RETREAT

**Goes  
Digital**

February 03 - 04, 2021  
Interactive Digital-Zoom-Meeting

New! February 02, 2020: Pre-event - CMMC Poster Session

## Program

CMMC Report | 12 Short Talks | CMMC Lecture | 3 Workshops | Live  
Poster Session | Live Chats and Breakout Rooms for Scientific  
Exchange, Discussions and Networking

CMMC Annual Retreat goes digital – Webpage

<https://www.cmmc-uni-koeln.de/events/cmmc-annual-retreats/annual-retreat-2021>

Online Registration

<https://cmmc-registration.uni-koeln.de/annualretreat/>

# CMMC Annual Retreat 2021

The Digital Program of the CMMC Annual Retreat 2021 organized via Zoom-Meeting integrates

- Feb. 02, 2021 from 3.00 – 6.45 p.m.: virtual CMMC Poster Session
- Feb. 03, 2021: CMMC Report (General Assembly), 12 short talks of CMMC Principal Investigators and the CMMC Lecture
- Feb. 04, 2021: three workshops organized by the CMMC Junior Research Group Leaders followed by a general CMMC meeting, where the outcome of the workshops will be presented and the poster prize winners will be awarded.

Following formats will be provided

- Interactive virtual participation with live Q&A during the sessions and workshops
- breakout channels and group chats to further promote the scientific exchange and networking
- virtual CMMC Poster Session – for further information: [Digital CMMC Poster Session](#)

Please register online

- <https://cmmc-registration.uni-koeln.de/annualretreat/>

## Program

### February 03, 2021

9.30 - 10.45 a.m.		Digital Meeting of the CMMC Executive Board (for EC Board Members only)
11.00 - 11.20 a.m.		<b>Welcome address and CMMC Progress Report</b> Thomas Benzing - Chair of the CMMC
<b>Research Area</b>	<b>A</b>	<b>Mechanisms of tumor development: intrinsic and extrinsic control of cell proliferation and tissue invasion</b>
<b>Chairs</b>		Michal-Ruth Schweiger   Matthias Hammerschmidt
11.20 - 11.40 a.m.	B 08	<b>The role of antigen-presenting cell subtypes in anti-Leishmania immunity</b> Esther von Stebut-Borschitz   Nir Yogev Clinic and Polyclinic of Dermatology and Venerology
11.40 - 12.00 p.m.	A 03	<b>The role of MAP2K7 inactivation in malignant transformation of neuroblastoma</b> Matthias Fischer Dept. of Exp. Pediatric Oncology, Clinic and Polyclinic for Pediatric & Adolescent Medicine
12.00 - 12.20 p.m.	A 04	<b>Understanding the impact of the lymphoid microenvironment in B cell malignancies by single-cell analysis</b> Phuong-Hien Nguyen   Michael Hallek   Rocio Rebolledo-Rios Clinic I of Internal Medicine
12.20 - 12.40 p.m.	A 06	<b>Elucidation of ferroptosis-inducing therapy (FIT) for the treatment of pancreatic cancer</b> Silvia von Karstedt Department for Translational Genomics
12.40 - 1.40 p.m.		Lunch Break with breakout rooms for discussions

**Research Area B Principles of immunity, inflammation and infection**

**Chairs** Sabine Eming | Claus Cursiefen

1.40 - 2.00 p.m. B 02 **Mechanism of the “Abscopal Effect” upon Radiation Therapy (RT)**  
Grit Herter-Sprie<sup>1</sup> | Jan Herter<sup>2</sup> | Roland Ullrich<sup>1</sup>  
<sup>1</sup>Clinic I of Internal Medicine - <sup>2</sup>Dept. of Radiation Therapy, Radiooncology & Cyberknife

2.00 - 2.20 p.m. B 05 **Microglia modulation as target for diabetic retinopathy**  
Thomas Langmann  
Lab. for Experimental Immunology of the Eye, Clinic of Ophthalmology

2.20 - 2.40 p.m. A 02 **Role of MFN2 in CMT2A neurodegeneration and in NAFLD liver disease**  
Mafalda Escobar-Henriques<sup>1</sup> | Margarete Odenthal<sup>2</sup>  
<sup>1</sup>Institute for Genetics - <sup>2</sup>Institute for Pathology

2.40 - 3.00 p.m. B 06 **Correlating biofilm structure with antibiotic tolerance**  
Berenike Maier<sup>1</sup> | Paul Higgins<sup>2</sup>  
<sup>1</sup>Inst. for Biological Physics - <sup>2</sup>Inst. for Med. Microbiology, Immunology and Hygiene

3.00 - 3.20 p.m. Coffee Break with breakout rooms for discussions

**Research Area C Molecular mechanisms and metabolic control of tissue degeneration and regeneration**

**Chairs** Carien Niessen | Jens Brüning

3.20 - 3.40 p.m. C 01 **Netrin-1 as a new target to treat chronic lung disease: Identification of agonists and antagonists by artificial intelligence**  
Miguel A Alejandro Alcazar<sup>1</sup> | Manuel Koch<sup>2</sup>  
<sup>1</sup>Clinic and Polyclinic for Pediatric and Adolescent Medicine  
<sup>2</sup>Inst. for Oral and Musculoskeletal Biology

3.40 - 4.00 p.m. C 07 **Molecular mechanism of X-linked intellectual disability caused by mutations in the UPF3B gene**  
Niels Gehring  
Institute for Genetics

4.00 - 4.20 p.m. C 10 **Regulation of feeding in health and pathology by glucagon-like peptide-1 receptor-expressing cells in the lateral hypothalamus and the lateral septum**  
Tatiana Korotkova  
Institute of Vegetative Physiology

4.20 - 4.40 p.m. C 13 **Mapping hereditary spastic paraplegia: towards common pathogenic and novel rescue pathways**  
Elena Rugarli  
Institute for Genetics / CECAD Research Center

4.40 - 5.00 p.m. Coffee Break with breakout rooms for discussions

5.00 - 6.00 p.m. **Introduction and Laudatio – Guenter Schwarz**

**CMMC Lecture** **Extracellular vesicles in neurodegeneration and diseases**  
Anja Schneider  
German Center for Neurodegenerative Diseases (DZNE) – Bonn

## Digital Workshop Sessions

- organized by CMMC Junior Research Group Leaders
- introduction & roundtable discussions with invited scientists and organizers in CMMC
- interactive digital participation via Live Chat for all participants (CMMC members and scientists at the Life Science Campus – UoC)

### 8.30 - 11.00 a.m. **Workshop 1** **Integrative data handling for improved human health research** Katarzyna Bozek and Philipp Antczak - organizers

University Hospital Cologne is a large and diverse hub for biomedical research. Integrative analysis of the vast amounts of data generated on the campus can provide means for improved personalized medicine, offer the potential to extract novel understanding of biology, improve patient stratification and welfare.

The goal of this workshop is to devise an integrated analytical system encompassing the diverse clinical and experimental data flows. Inherent to our discussion will be the removal of boundaries throughout the organization to inspire new integrative research projects and comprehensive (re)use of the rich biomedical datasets generated on the campus.

#### **Scientists of the roundtable discussions - digital format:**

Thomas Benzing - Reinhard Büttner - Katrin Bohl - Konstantina Charmpi - Alexander Diltthey – Florian Erger - Roman-Ulrich Müller - Astrid Schauss and the organizers

### 11.00 - 1.30 p.m. **Workshop 2** **Assembly, regulation and dynamics of multi-subunit complexes in cellular signaling** Alessandro Annibaldi, Débora B Trentini Schmidt and Simon Pöpsel - organizers

Proteins exert their function as part of larger, multi-subunit assemblies. The analysis of such assemblies is of crucial importance to understand their function at a larger scale, although often challenging due to the limitations of individual approaches.

We will discuss the strengths and limitations of our experimental approaches, and how collaborative efforts could help us drawing a more detailed picture of our favorite biological systems. We will particularly focus on i) Cryo-EM, ii) Cross-linking mass spectrometry and iii) Single Cell Imaging to study the dynamics & molecular details of multi-subunit protein complexes.

#### **Scientists of the roundtable discussions - digital format:**

Kay Hofmann - Ron Jachimowicz - Hamid Kashkar - Natalia Kononenko - Ana Garcia Saez - Guenter Schwarz - Gerhard Sengle - Henning Walczak and the organizers

### 2.00 - 4.30 p.m. **Workshop 3** **Targeted treatment of patients through single-cell multi-OMICs Profiling** Robert Hänsel-Hertsch and Philipp Antczak - organizers

Human wellbeing is governed by the individual's (epi)genetic background, their molecular complexity and their interaction with the environment both internal and external. Improving personalized medicine requires not only identifying the molecular causes but also conceptualizing these. Here we explore how cellular composition reflects on disease predisposition, state and outcome; how multi-OMICs profiling may help in conceptualizing human disease; and how we can make use of frameworks in translational clinical applications.

We aim to highlight the use of single-cell Seq and integration to improve diagnosis and treatment.

#### **Scientists of the roundtable discussions – digitale format:**

Andreas Beyer - Eric Hahnen - Axel Hilmer - Ron Jachimowicz - Julie George - Roman-Ulrich Müller - Michal-Ruth Schweiger - Armin Tresch - Julian Puppe - Andreas Scheel - Holger Winkels and the organizers

### 4.30 - 5. 30 p.m. **General CMMC Meeting** **Reports from the WP 1, WP 2 and WP 3 presented by the organizers** **Announcement of the poster prize winners, final discussions and leave-taking** Thomas Benzing - Chair of the CMMC