

CMMC

Annual Retreat

March 02 - 03, 2023

CMMC CENTER FOR
MOLECULAR MEDICINE
COLOGNE



March 02, 2023

Venue - MTI-Lecture Hall Building

Short Talks - Speakers

H Bazzi	M Corrado
L Frenzel	K Hadrian
A Hillmer	F Hoyer
J Jantsch	L-J Kepser
N Kononenko	M Lemberg
D Pla-Martin	S Rosenkranz
P Schommers	A Simonis
J Vogt	S Willenborg

CMMC Lecture

Katarzyna Bozek

CMMC Report

Thomas Benzing

CMMC Poster Session

with Get-Together

Announcements

CMMC Symposium 2023
FEBS-IUBMB-ENABLE Cologne Conference 2023

March 03, 2023 - Workshop Sessions

Venue Lecture Hall, Frauenklinik (opposite of the CMMC-Research Building)

WS 1 Computational methods in biomedicine for wet lab scientists

Organizers - K Bozek - A Beyer - P Antczak

WS 2 Integration and analysis of multiplex imaging technologies

Organizers - N Peltzer - H Nguyen

WS 3 EU Grant Proposal: Linking environmental pollution to disease

Organizer - P Antczak



Program
Information
Online Registration

Organizers

A Annibaldi - P Antczak - K Bozek - R Hänsel-Hertsch - H Nguyen
N Peltzer - S Pöpsel - D Trentini Schmidt - H SchlöBer

supported by the CMMC Office-Team: K Belostotski - C Herr
B Kranz - A Schwarz-Tang - D Grosskopf-Kroiher

CMMC Annual Retreat 2023 - Program

March 02, 2023

Location: MTI-Lecture Hall of the Center for Biochemistry and Physiology – Faculty of Medicine

Welcome Address, Short Talk Sessions, CMMC Report, CMMC Lecture and Get-Together with Poster Session

March 03, 2023

Location: Lecture Hall Frauenklinik (across from the CMMC Research Building)

Workshop Session with three workshops

March 02, 2023

Venue - MTI-Lecture Hall

Only EC BOARD **EC Board** **Meeting of the CMMC Executive Board** - for members of the EC Board
8:30 - 9:45 a.m.

9:00 - 9:45 a.m. **Registration for all participants** (time to put up your posters on the poster boards)

10.00 - 10.05 a.m. **Welcome Address**
Thomas Benzing - Chair of the CMMC

Short Talk Sessions

Session I **Research Area C**
Molecular mechanisms & metabolic control of tissue degeneration & regeneration
Chairs - Debora Trentini and Robert Hänsel-Hertsch

10.05 – 10.20 a.m. C 13 **Role of TNF-mediated inflammatory signaling in heart failure with preserved ejection fraction (HFpEF) and associated pulmonary hypertension (PH)**
Stephan Rosenkranz | Marius Vantler
Clinic III for Internal Medicine

10.20 - 10.35 a.m. C 08 **Dissecting the role of Alzheimer's disease-associated endocytosis risk factors in regulating cell cycle events in neuronal cells**
Natalia Kononenko
Institute for Physiology and Pathophysiology

10.35 - 10.50 am. C 10 **Triaging of secretory cargo by interplay of TANGO1 and ERAD-R**
Marius Lemberg¹ | Alvis Schiavinato² | Julian Nüchel³
¹Center for Biochemistry | ²Clinic for Pediatric and Adolescent Medicine | ³MPI for Biology of Aging

10:50 - 11:10 a.m. Coffee Break with Posters

11.10 - 11.25 a.m. CAP 25 **Targeting endosomal removal of mitochondrial nucleoids to modulate mtDNA heteroplasmy**
David Pla-Martin
Institute of Vegetative Physiology

11:25 - 11:50 a.m. C 17 **Bioactive lipid signaling in adult neurogenesis and metabolic modulation**
Lara-Jane Kepser | Johannes Vogt
Dept. of Molecular and Translational Neurosciences

11.50 - 12.05 p.m. C 04 **Unlocking tissue protective and regenerative functions of myeloid cells by metabolic reprogramming**
Sebastian Willenborg | Mario Fabri | Sabine Eming
Clinic of Dermatology and Venereology

12:05 - 12:30 p.m. **CMMC Report**

- **Progress Report** - Thomas Benzing
- **Announcements**

12.30 - 1.30 p.m. Lunch Break (onsite) with Poster Session

Session II	Research Area B Principles of immunity, inflammation and infection Chairs - Annibaldi Alessandro and Hans Schlößer	
1.30 - 1.45 p.m.	B 03 CAP 21	Metabolic control of T cell immunity Mauro Corrado CECAD Research Center
1.45 - 2.00 p.m.	CAP 22	Myeloid Cells in Systemic and Cardiovascular Inflammation Friedrich Hoyer Clinic III for Internal Medicine
2.00 - 2.15 p.m.	B 05	Targeting the osmosensitive transcription factor NFAT5 in acute and chronic corneal edema Karina Hadrian Claus Cursiefen Deniz Hos Clinic of General Ophthalmology
2.15 - 2.35 p.m.		Coffee Break with Posters
2.35 - 2.50 p.m.	assoc. JRG 07 CAP 26	Dynamics and durability of HIV-1 neutralization are determined by viral replication Philipp Schommers - Clinic I for Internal Medicine
2.50 - 3.05 p.m.	CAP 27	Development of patient-derived PcrV antibodies targeting <i>Pseudomonas aeruginosa</i> Alexander Simonis - Clinic I for Internal Medicine
3.05 - 3.20 p.m.	B 04	Endothelial cells and pericytes in cutaneous leishmaniasis Jonathan Jantsch Institute for Medical Microbiology, Immunology and Hygiene
3.20 - 3.35 p.m.		Coffee Break with Posters
Session III	Research Area A Mechanisms of tumor development: intrinsic and extrinsic control of cell proliferation and tissue invasion Chairs - Nieves Peltzer and Simon Pöpsel	
3.35 - 3.50 p.m.	A 01	The mitotic surveillance pathway in stem cells Hisham Bazzi - Clinic of Dermatology and Venerology
3.50 - 4.05 p.m.	A 06	Identification of therapeutic vulnerabilities of <i>KEAP1</i>-mutated lung adenocarcinoma Axel Hillmer Reinhard Büttner - Institute of Pathology
4.05 - 4.20 p.m.	A 05	The dialogue of CLL cells with the tumor microenvironment as a mediator of treatment resistance against targeted inhibitor combinations Lukas Frenzel Michael Hallek - Clinic I of Internal Medicine
4.20 - 5.00 p.m.		CMMC Lecture Introduction and Moderation - Prof. Thomas Benzing Universal computational machines for digital pathology Katarzyna Bozek - Center for Molecular Medicine Cologne & Institute of Biomedical Information
5.00 - 7.30 p.m.	Poster Session	Poster Session with and scientific networking with finger food and drinks 5.30 - 6.30 p.m. Even Poster Numbers 6.30 - 7.30 p.m. Uneven Poster Numbers

March 03, 2023

Workshop-Sessions

Venue - Lecture Hall Frauenklinik (across from the CMMC Research Building)

9.00 - 11.00 a.m.

Workshop 1

Computational methods in biomedicine for wet lab scientists

- organized by Kasia Bozek - Andreas Beyer - Philipp Antczak
- In an interactive format, in this workshop we will present in detail functioning and potential applications of several computational methods in biomedical research. The content is aimed towards wet lab scientists with no computational experience.

11.00 - 11.15 a.m.

Coffee Break

11.15 - 1.30 p.m.

Workshop 2

Integration and analysis of multiplex imaging technologies

- organized by Nieves Peltzer - Hien Nguyen
- The development of state-of-the-art imaging technologies to deeply study tissues, biopsies or other biological material has flourished in recent years. Yet, their implementation and analysis remain challenging. In this workshop we will discuss the available technologies, their power and limitations and how to make maximal use the data. Ultimately, we aim to discuss how to benefit from these technologies and expertise in the Cologne biomedical campus.

1.30 - 2.00 p.m.

Lunch Break with Catering – Foyer, CMMC Research Building

2.00 - 5.00 p.m.

Workshop 3

EU Grant Proposal: Linking environmental pollution to disease

- organized by Philip Antczak
 - This workshop will aim to establish whether Cologne researchers would like to submit a grant proposal focusing on “The Role of Environmental Pollution in Noncommunicable Diseases: Air, Noise, and Light Pollution and Hazardous Waste” for the upcoming EU Calls in Sept. (HORIZON-HLTH-2024-ENVHLTH-02-06-two-stages). This call aims to better understand the relationship between environmental pollution and disease status in non-communicable diseases, for which several cohorts are available in Cologne. The budget for this call is €7-8 million. This project could combine the efforts of disease cohorts, cellular damage, multi-level modeling, chemistry, and social science to better understand how we as a population are affected by the chemical pollution that surrounds us.
 - Invited guest speaker: Marissa Kosnik – Eawag, Zurich, CH
-