

CMMC Symposium 2026 in Molecular Medicine

September 28-30, 2026 - Cologne, Germany



UNIVERSITY
OF COLOGNE



UNIKLINIK
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CMMC

CENTER FOR
MOLECULAR MEDICINE COLOGNE

Metabolic Control of Tissue Regeneration and Degeneration

Certified with
16 CME Credits

Regeneration and Metabolism

- Almudena Chaves Perez - New York, US
- Ahmed Mahmoud - La Jolla, US
- Mónica M Sousa - Porto, PT
- Elly Tanaka - Vienna, AT



Carbohydrate Metabolism and Diabetes

- Jens Brüning - Cologne, DE
- Roy Taylor - Newcastle, GB

Redox Metabolism and Regeneration

- Can Aztekin - Tübingen, DE
- Ruma Banerjee - Ann Arbor, US
- Hozumi Motohashi - Sendai, JP

Immunity and Metabolism

- Kenji Kabashima - Kyoto, JP
- David E Sanin - Baltimore, US
- Jane Reznick - Cologne, DE

Nucleic Acid Metabolism

- Ana Martin-Villalba - Heidelberg, DE
- Min Ae Lee-Kirsch - Dresden, DE
- Hendrik Poeck - Regensburg, DE
- Axel Roers - Heidelberg, DE

Lipid and Fatty Acid Metabolism

- Triantafyllos Chavakis - Dresden, DE
- Kitt Petersen - New Haven, US
- Gerald I Shulman - New Haven, US
- Gregory Steinberg - Hamilton, CA

Fritz Thyssen Stiftung
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Scientific Coordinator / Keynote Speaker

- Elly Tanaka - Vienna, AT
- Axel Roers - Heidelberg, DE
- Gerald I Shulman - New Haven, US

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Organized by the CMMC Office
cmmc-symposium@uni-koeln.de

Scientific Coordinator

- Sabine Eming
- Guenter Schwarz
- Jens Brüning

We gratefully acknowledge support by:



Monday – September 28, 2026

12.45 - 1.00 p.m. Welcome Address

Carien Niessen, Vice Rector for Research, University of Cologne
tba - Center for Molecular Medicine Cologne

Sabine Eming – Guenter Schwarz – Jens Brüning
Scientific Coordinators - CMMC Symposium 2026

Session 1 Regeneration and Metabolism

1.00 - 2.30 p.m. Chairs tba

Metabolic Interventions in Regeneration and Cancer

[Almudena Chaves Perez](#) - Cancer Biology and Genetics Program,
Memorial Sloan Kettering Cancer Center - New York, US

From Scar to Regeneration - Defining the Roadmap for Mammalian Spinal Cord Regeneration using Spiny Mice

[Mónica M Sousa](#) – Inst. for Molecular and Cell Biology (IBMC) – Porto, PT

Metabolic Regulation of Heart Regeneration

[Ahmed I Mahmoud](#) - Center for Cardiovascular and Muscular Diseases,
Sanford Burnham Prebys, La Jolla, USA

2.30 - 3.00 p.m. Coffee Break incl. Biotech Exhibition

Session 2 Carbohydrate Metabolism and Diabetes

3.00 - 4.30 p.m. Chairs tba

CNS-Control of Liver Metabolism

[Jens Brüning](#) - MPI for Metabolism Research & Dept. of Endocrinology, Diabetes and
Preventive Medicine, University Hospital Cologne - Cologne, DE

Title pending

Speaker pending

The Claude Bernard approach to scientific proof: The Aetiology of Type 2 Diabetes

[Roy Taylor](#) - Translational and Clinical Research Inst., Newcastle University - Newcastle, GB

4.30 - 5.00 p.m. Coffee Break incl. Biotech Exhibition

5.00 - 6.00 p.m. CMMC Symposium Key Note Lecture I Reprogramming Fibroblasts to Make Bone

[Elly Tanaka](#) – Inst. of Molecular Biotechnology (IMBA) - Vienna, AT

Laudation for the key note speaker by tba

6.00 - 9.00 p.m. CMMC Poster Session with Welcome Get-Together (free finger food and drinks)

Selection of three posters for the CMMC Symposium 2026 - Poster Awards

Call for submission of poster abstracts – Poster Session – CMMC Symposium 2026

We are pleased to announce the following topics for submission of poster abstracts:

- A Regeneration and Metabolism
- B Carbohydrate Metabolism and Diabetes
- C Redox Metabolism and Regeneration
- D Immunity and Metabolism
- E Nucleic Acid Metabolism
- F Lipid and Fatty Acid Metabolism
- G Related research areas

- **Deadline for poster abstract submission: September 1, 2026**
- **Please find further information and the poster abstract template at:**
[Poster Session – CMMC Symposium 2026](#)

Tuesday – September 29, 2026

Session 3 Redox Metabolism and Regeneration

9.00 - 10.30 a.m. Chairs tba

Sulfide Signaling: From Biomolecules to Behavior

[Ruma Banerjee](#) - Dept. of Biological Chemistry, University of Michigan Medical School, Ann Arbor - Michigan, US

CARS1-Mediated Supersulfidation in Skeletal Muscle

[Hozumi Motohashi](#) - Dept. of Medical Biochemistry, Graduate School of Medicine, Tohoku University - Sendai, JP

Oxygen Sensing Bridges Amphibian and Mammalian Regeneration

[Can Aztekin](#) – The Friedrich Miescher Laboratory of the Max Planck Society - Tübingen, DE

10.30 - 11.00 a.m. *Coffee Break incl. Biotech Exhibition*

Session 4 Immunity and Metabolism

11.00 - 12.30 p.m. Chairs tba

Young at Heart: Neoteny and Regeneration in the Naked Mole-Rat

[Jane Reznick](#) - CECAD, University of Cologne - Cologne, DE

Identification of HEV-Like Endothelial Cells and CD4+ Resident Memory T Cells in Atopic Dermatitis

[Kenji Kabashima](#) - Dept. of Dermatology, Graduate School of Medicine, Kyoto University - Kyoto, JP

Persistent Arginase 1 Expression drives Enhanced Mitochondrial Function in Tissue Resident Macrophages

[David E Sanin](#) - Bloomberg-Kimmel Inst. for Cancer Immunotherapy, Johns Hopkins University School of Medicine - Baltimore, US

12.30 - 2.30 p.m. *Lunch Break with Poster Presentation and Biotech Exhibition (free lunch for all participants)*

Session 5 Nucleic Acid Metabolism

2.30 - 4.00 p.m. Chairs tba

Perils and Promise of Stemness in Adult Regeneration: What the Methylome Reveals

[Ana Martin-Villalba](#) - German Cancer Research Center - Heidelberg, DE

Genetic Insights into Nucleic Acid Immunity

[Min Ae Lee-Kirsch](#) – Molecular Pediatrics, TU Dresden

Immunomodulatory Microbial Metabolites in Immune-Based Therapies

[Hendrik Poeck](#), Hemato-Oncology, Internal Medicine (III) – Regensburg, DE

4.00 - 4.05 p.m. **Announcement of the Poster Prize Winners**
Presenter tba

4.05 - 4.30 p.m. *Coffee Break incl. Biotech Exhibition*

4.30 - 5.30 p.m. CMMC Symposium Key Note Lecture II

Nucleic Acid Metabolism – A Driver for cGAS/STING Signaling

[Axel Roers](#) – Inst. of Immunology, University Hospital Heidelberg - Heidelberg, DE

Laudation for the key note speaker by tba



Please visit the CMMC Symposium 2026 Webpage for further information

<https://www.cmmc-uni-koeln.de/events/cmmc-symposium/cmmc-symposium-2026>

9.00 - 9.30 a.m. Short presentation, given by the three poster awardees

Session 6 Lipid and Fatty Acid Metabolism

9.30 - 11.00 a.m. Chairs tba

Role Immunometabolic and Epigenetic Mechanisms in Innate Immune Memory
[Triantafyllos Chavakis](#) – Inst. for Clinical Chemistry and Laboratory Medicine, TU Dresden, DE

Regulation of Hepatic Lipid Metabolism
[Gregory Steinberg](#) - Dept. of Medicine, McMaster University, Ontario - Hamilton, CA

Role of Muscle Insulin Resistance in the Development of MASLD and Cardiovascular Disease

[Kitt Petersen](#) Dept. of Internal Medicine (Endocrinology),
Yale School of Medicine - New Haven, UDE

11.00 - 11.30 a.m. Coffee Break incl. Biotech Exhibition

11.30 - 12.30 p.m. **CMMC Symposium Key Note Lecture III**
Mitochondrial Protonophores to Treat MASLD/MASH, Obesity and Cardiometabolic Disease
[Gerald Shulman](#) - Dept. of Internal Medicine, Yale School of Medicine - New Haven, US
Laudation for the key note speaker by tba

12.30 - 12.45 p.m. **Summary, open questions, concluding remarks and farewell**
Sabine Eming – Guenter Schwarz – Jens Brüning

General Information

Participation is free of charge and no registration or attendance fee is required. Registration is required.

If you require an official invitation letter for travel refunding or visa issues as well as childcare possibilities, please contact Dr. Debora Grosskopf-Kroiher - debora.grosskopf-kroiher@uni-koeln.de

Travel Tools:

[Hotel Booking Platform](#)

[Deutsche Bahn Eventbooking](#)

If you are interested in supporting the CMMC Symposium 2026, please visit [Sponsoring Options](#)

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