

CMMC SYMPOSIUM



Leopoldina
Nationale Akademie
der Wissenschaften

25 Years of Progress

in Molecular Medicine: From Basic Research to Clinical Application

September 26-28, 2021 in Cologne, DE

certified with
21 CME credits

Goes
Hybrid

- » Stem Cell Biology and Regenerative Medicine
- » Molecular Oncology and Genomic Medicine
- » Precision Medicine in Cancer Treatment
- » Infectious Diseases
- » Neuroplasticity and Neurodegeneration
- » Metabolism and Aging

Fritz Thyssen Stiftung
für Wissenschaftsförderung

Program
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Organized by: Center for Molecular Medicine Cologne - University of Cologne

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CMC CENTER FOR
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Sunday - Sept. 26, 2021

- 12.45 p.m. Welcome Address
Axel Freimuth - Rector of the University of Cologne
Thomas Krieg - Vice President of the Leopoldina
Thomas Benzing - Chair - Center for Molecular Medicine Cologne, University of Cologne

Session I Stem Cell Biology and Regenerative Medicine

Chairs Claus Cursiefen and Carien Niessen - Cologne, DE

- 1.00 - 1.10 p.m. Introduction of the research field
- 1.10 - 1.40 p.m. **SARS-CoV-2 genomic integration, expression and cell tropism**
[Rudolph Jaenisch](#) - Whitehead Inst. for Biomedical Research and Dept. of Biology, Massachusetts Institute of Technology - Cambridge, US
- 1.40 - 2.10 p.m. **Mechanisms of mammalian cell fate decisions**
[Thomas Graf](#) - Centre for Genomic Regulation (CRG) - Barcelona, ES
- 2.10 - 2.40 p.m. **Proteostasis of aging and stem cells**
[David Vilchez](#) - CECAD - Cologne Excellence Cluster Diseases - Cologne, DE
- 2.40 - 3.10 p.m. Hybrid Coffee Break
- 3.10 - 3.40 p.m. **Single factor induction of divergent cell fates**
[Konrad Hochedlinger](#) - Massachusetts General Hospital and Regenerative Biology and Howard Hughes Medical Institute - Boston, US
- 3.40 - 4.10 p.m. **From melanoma to Parkinson's disease – applications of human pluripotent stem cells**
[Lorenz Studer](#) – Memorial Sloan Kettering Cancer Center - New York, US
- 4.10 - 4.40 p.m. **Advanced genetic engineering of hematopoiesis to treat inherited diseases and cancer**
[Luigi Naldini](#) - San Raffaele Telethon Inst. for Gene Therapy and Vita-Salute San Raffaele University - Milan, IT
- 4.40 - 5.00 p.m. Hybrid Coffee Break

Special CMMC Lecture

- 5.00 - 5.30 p.m. Introduction - [Thomas Krieg](#) - Cologne, DE
The Center for Molecular Medicine Cologne: the last 25 years and the future
[Franz Hofmann](#)
Institute for Pharmacology and Toxicology, Technical University Munich - Munich, DE
- 5.30 - 5.45 p.m. Hybrid Coffee Break

CMMC Poster Session 2021

We are pleased to welcome 79 poster presentation at the CMMC Poster Session. The poster presenters are looking forward to meet you at digital Poster session map1, 2 and 3. For further information, please visit: [here](#)

5.45 - 6.00 p.m.	Welcome Address - Michal-Ruth Schweiger - Cologne, DE	MAP 1
6.00 - 7.30 p.m.	A 01 – A 10 • B 01 – B 17 C 01 – C 06 • D 01 – D 06	MAP 1 MAP 2
7.30 - 9.00 p.m.	E 01 – E 11 F 01 – F 11 • G 01 – G 18	MAP 2 MAP 3
9.00 - 9.10 p.m.	Concluding Remarks - Michal-Ruth Schweiger	MAP 3

The CMMC Poster Awards will be awarded to the presenting authors of the three most outstanding poster contributions. The awardees of the CMMC Poster Prize will be announced on Sept. 27, 2021 at 3.30 p.m. (at the end of Session III) and are invited to give a short presentation (4 Min.) on the following day at 12.00 p.m. (at the end of Session V).

Session II Molecular Oncology and Genomic Medicine

Chairs Reinhard Büttner and Michal-Ruth Schweiger - Cologne, DE

8.30 - 8.40 a.m. Introduction of the research field

8.40 - 9.10 a.m. **Precision oncology: experiences and challenges in translating genomic information into clinical decisions**

[Peter Lichter](#) - German Cancer Research Center, DKFZ, Heidelberg, DE

9.10 - 9.40 a.m. **Mutational footprints of cancer therapies**

[Núria López-Bigas](#) - The Barcelona Institute of Science and Technology (BIST) - Barcelona, ES

9.40 - 10.10 a.m. **The Human Cell Atlas: mapping the body one cell at a time**

[Sarah Teichmann](#) - Cellular Genetics, Wellcome Sanger Institute - Hinxton, GB

10.10 - 10.30 a.m. Hybrid Coffee Break

10.30 - 11.00 a.m. **Darwinian and Non-Darwinian Evolution in Cancer**

[Marco Gerlinger](#) - Institute of Cancer Research - London, UK

11.00 - 11.30 a.m. **Mapping childhood brain tumors onto normal cerebellar development**

[Stefan Pfister](#) - University Hospital Heidelberg - Heidelberg, DE

11.30 - 12.30 p.m. Hybrid Lunch Break

Session III Precision Medicine in Cancer Treatment

Chairs Michal-Ruth Schweiger and Martin Sos - Cologne, DE

12.30 - 12.40 p.m. Introduction of the research field

12.40 - 1.10 p.m. **The role of stress signaling in cancer and cancer treatment**

[Michael B Yaffe](#) - MIT and Koch Institute for Integrative Cancer Research - Cambridge, US

1.10 - 1.40 p.m. **Exploiting synthetic lethality in the treatment of cancer**

[Chris J Lord](#) - Breast Cancer Now Toby Robins Research Centre - London, GB

1.40 - 2.10 p.m. **The making of diffuse large B cell lymphoma**

[Laura Pasqualucci](#) - Institute for Cancer Genetics, Columbia University - New York, US

2.10 - 2.30 p.m. Hybrid Coffee Break

2.30 - 3.00 p.m. **Lymphoma epigenetics**

[Ari M Melnick](#) - Weill Cornell Medicine - New York, US

3.00 - 3.30 p.m. **10 years checkpoint blockade – what have we learned?**

[Dirk Schadendorf](#) - Dept. of Dermatology, Univ. Hospital Essen, Univ. Duisburg - Essen, DE

3.30 - 3.40 p.m. **Announcement of the three CMMC Poster Prize Winners** - Michal-Ruth Schweiger - Cologne, DE

3.40 - 4.00 p.m. Hybrid Coffee Break

Session IV Infectious Diseases

Chairs Martin Krönke and Jan Rybniker - Cologne, DE

4.00 - 4.10 p.m. Introduction of the research field

[Ralf Bartenschlager](#) - Dept. of Infectious Diseases, University Hospital Heidelberg - Heidelberg, DE

4.10 - 4.40 p.m. **Respiratory virus pathogenicity in high-risk groups**

[Gülsah Gabriel](#) - Heinrich-Pette-Institute, Leibniz Inst. for Experimental Virology - Hamburg, DE

4.40 - 5.10 p.m. **Antibody-mediated neutralization of SARS-CoV-2**

[Florian Klein](#) - Institute for Virology, University of Cologne - Cologne, DE

5.10 - 5.30 p.m. Hybrid Coffee Break

5.30 - 6.00 p.m. **Towards a curative therapy for Hepatitis B and D co-infected patients**

[Stephan Urban](#) - Dept. of Infectious Diseases, Univ. Hospital Heidelberg - Heidelberg, DE

6.00 - 6.30 p.m. **Vaccines and monoclonals to regain our freedom**

[Rino Rappuoli](#) - Research and Development (R&D) at GlaxoSmithKline Vaccines - Siena, IT

6.30 - 7.00 p.m. **Survival strategies of malaria parasites in the dry season**

[Silvia Portugal](#) - Max Planck Institute for Infection Biology - Berlin, DE

Tuesday - Sept. 28, 2021

Session V Neuroplasticity and Neurodegeneration

Chairs Dirk Isbrandt and Tatiana Korotkova - Cologne, DE

9.00 - 9.10 a.m. Introduction of the research field

9.10 - 9.40 a.m. **Dynamic control of presynaptic function in health and disease**

[Nils Brose](#) - Max Planck Institute for Experimental Medicine - Goettingen, DE

9.40 - 10.10 a.m. **Neuronal correlates of emotion states in mice**

[Nadine Gogolla](#) - Max Planck Institute of Neurobiology - Munich, DE

10.10 - 10.40 a.m. **Tau toxicity at the synapse**

[Patrik Verstreken](#) - VIB-KU Leuven Center for Brain & Disease Research - Leuven, BE

10.40 - 11.00 a.m. Hybrid Coffee Break

11.00 - 11.30 a.m. **Negative feedback control of neuronal activity by microglia**

[Anne Schaefer](#) - Icahn School of Medicine at Mount Sinai - New York, US

11.30 - 12.00 p.m. **Mechanisms for fast dopamine signaling**

[Pascal S Kaeser](#) - Department of Neurobiology, Harvard Medical School - Boston, US

12.00 - 12.15 p.m. **Awarding of the CMMC Poster Prizes and short talks (3 x 4 min.) given by the awardees**
Michal-Ruth Schweiger – Cologne, DE

12.15 - 1.00 p.m. Hybrid Lunch Break

Session VI Metabolism and Aging

Chairs Sabine Eming and Aleksandra Trifunovic - Cologne, DE

1.00 - 1.10 p.m. Introduction of the research field

1.10 - 1.40 p.m. **CNS-dependent control of metabolism**

[Jens C Brüning](#) - Max Planck Institute for Metabolism Research, Univ. Hospital Cologne - Cologne, DE

1.40 - 2.10 p.m. **Hormone sensing in astrocytes for the control of systemic metabolism**

[Cristina García Cáceres](#) - Helmholtz Zentrum München - Neuherberg, DE

2.10 - 2.30 p.m. Hybrid Coffee Break

2.30 - 3.00 p.m. **Reversing the decline in physical activity with age**

[Lora Heisler](#) - The Rowett Institute, Univ. of Aberdeen - Aberdeen, GB

3.00 - 3.30 p.m. **Mechanisms of stem cell aging and rejuvenation**

[Anne Brunet](#) - Stanford University School of Medicine - Stanford, US

3.30 - 4.00 p.m. **The surprising role of glia in the regulation of metabolism and aging**

[Andrew Dillin](#) - Dept. of Molecular and Cell Biology, Univ. of California Berkeley - Berkeley, US

4.00 - 4.10 p.m. Summary, open questions, concluding remarks

General Information: The meeting is open and no registration or attendance fee is required. Participation is free of charge - free registration is required. Please sign up [here](#).

Venue: Main Lecture Hall, Faculty of Medicine, University of Cologne

Access only possible from Joseph-Stelzmann-Str. 26 - please follow the yellow CMMC Symposium signs.

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BMS EUR 1500,- • Proteintech EUR 1500,- • Macherey-Nagel EUR 1000,- • PHCbi EUR 1000,- • Singleron EUR 1000,- • AstraZeneca EUR 500,- • New England Biolabs EUR 500,- • LMS Consult conference material • Promega conference material

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