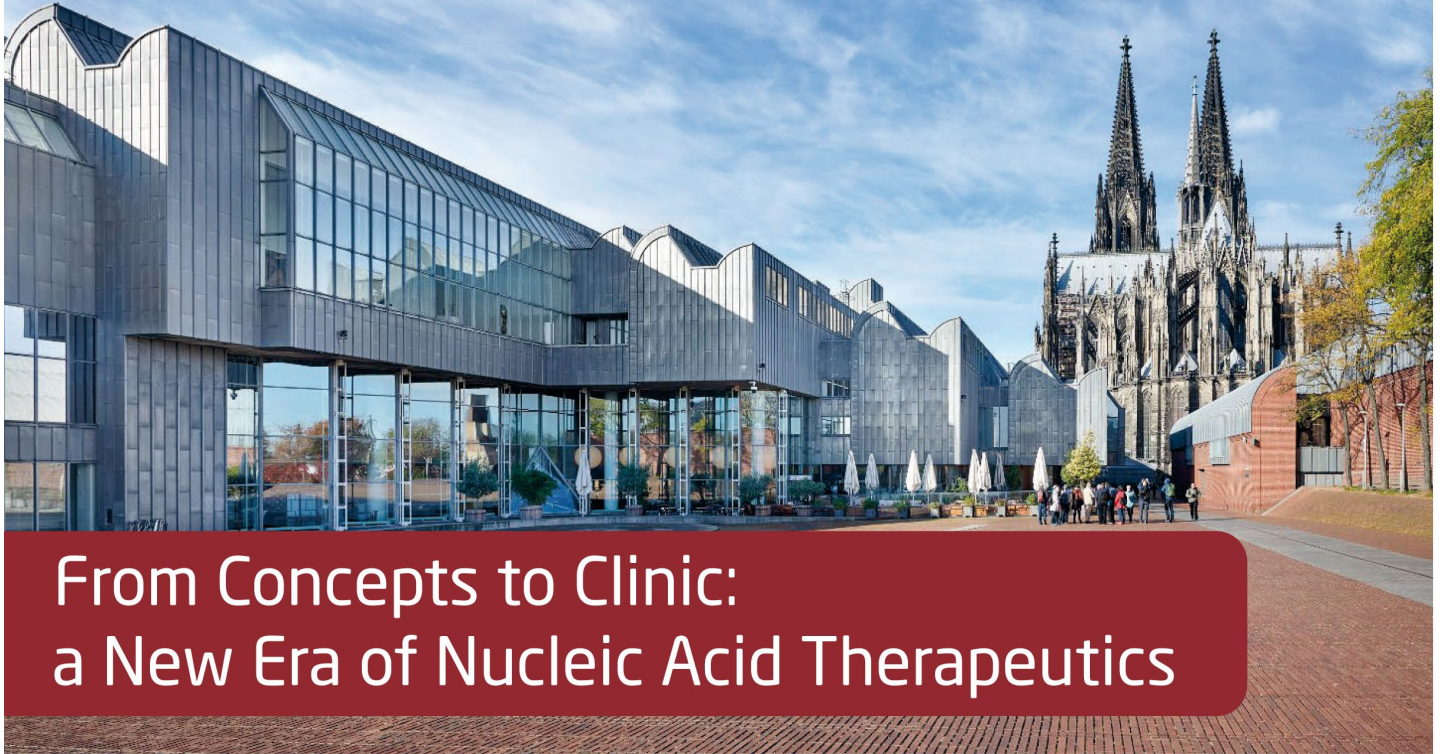


# CMMC Symposium 2023 in Molecular Medicine

September 18 - 20, 2023 in Cologne



From Concepts to Clinic:  
a New Era of Nucleic Acid Therapeutics

## Program



Certified with  
17 CME Credits

„Nordrheinische Akademie  
für ärztliche Fort- und  
Weiterbildung“

## Information



12.50 p.m. **Welcome Address**

**Esther von Stebut-Borschitz** Vice Dean of Science - Faculty of Medicine, Univ. of Cologne

**Sabine Eming** Vice Chair - Center for Molecular Medicine Cologne

**Michal Ruth Schweiger - Markus Stoffel - Roman-Ulrich Müller**

Scientific Coordinators - CMMC Symposium 2023

**Session I Nucleic acid chemistry (Innate Immunity)**

**Chairs** Stephanie Kath-Schorr and Christian Pallasch - Cologne, DE

1.00 - 1.30 p.m. **Nucleic acid recognition by the innate immune system**

[Veit Hornung](#) – Gene Center & Dept. of Biochemistry, LMU Munich and MPI of Biochemistry - Munich, DE

1.30 - 2.00 p.m. **Optical control of mRNA translation**

[Andrea Rentmeister](#) – Inst. of Biochemistry, University of Muenster - Muenster, DE

2.00 - 2.30 p.m. **Living in the World of RNA therapeutics made possible by biomimetic chemistry**

[Mano Manoharan](#) – Alnylam Pharmaceuticals - Cambridge, US

2.30 - 3.00 p.m. *Coffee Break*

**Session II Nucleic acids delivery and visualization**

**Chairs** Holger Grüll and Ines Neundorf - Cologne, DE

3.00 - 3.30 p.m. **Design and evolution of protein carriers for nucleic acids**

[Don Hilvert](#) – Chemistry Department, ETH Zurich - Zurich, CH

3.30 - 4.00 p.m. **Imaging and microscopy of RNA in living cells**

[Andres Jäschke](#) – Institute of Pharmacy and Molecular Biotechnology, Univ. of Heidelberg, DE

4.00 - 4.30 p.m. **mRNA vaccines for the treatment of cancer**

[Mathias Vormehr](#) – BioNTech SE - Mainz, DE

4.30 - 5.00 p.m. *Coffee Break*

5.00 - 6.00 p.m. **CMMC Symposium Key Note Lecture I  
Regulation of metabolism by miRNAs and RNA binding proteins**

[Markus Stoffel](#) – Institute for Molecular Health Sciences, ETH Zurich, CH

Laudation for the key note speaker by Roman-Ulrich Müller

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

Selection of three posters for the CMMC Symposium 2023 - Poster Awards

**Poster Session – CMMC Symposium 2023**

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

- A Nucleic acid chemistry (Innate Immunity)
- B Nucleic acids delivery and visualization
- C Technology and future applications (e.g. mRNAs, ncRNAs)
- D Technology and applications development (e.g. Aptamers, RNAi, snRNAs, ASO)
- E CRISPR and RNA-protein interaction and modulation
- F Preclinical and clinical application
- G Related research areas

- Please find further information and the poster abstract book at:

[Poster Session – CMMC Symposium 2023](#)

Tuesday – Sept. 19, 2023

### Session III Technology and future applications (e.g. mRNAs, ncRNAs)

**Chairs** Volker Böhm and Margarete Odenthal - Cologne, DE

- 9.00 - 9.30 a.m. **RNA gain of function signatures in neurological disease**  
[Maurice S Swanson](#) – Dept. of Mol. Genetics and Microbiology, University of Florida - Gainesville, US
- 9.30 - 10.00 a.m. **Designing and characterizing new materials approaches for therapeutics**  
[Molly Stevens](#) – Royal School of Mines, Imperial College London - London, GB
- 10.00 - 10.30 a.m. *Coffee Break*
- 10.30 - 11.00 a.m. **RNA-based therapeutics for polycystic kidney disease**  
[Vishal Patel](#) – UT Southwestern Medical Center - Dallas, US
- 11.00 - 11.30 a.m. **Reading and writing RNA modifications by ribozymes**  
[Claudia Höbartner](#) – Institute of Organic Chemistry, University of Würzburg - Würzburg, DE
- 11.30 - 1.30 p.m. *Lunch Break with Poster Presentation (free lunch for all participants)*

### Session IV Technology & applications development (e.g. Aptamers, RNAi, snRNAs, ASO)

**Chairs** Robert Hänsel-Hertsch and Axel Hillmer - Cologne, DE

- 1.30 - 2.00 p.m. **Combating thrombosis with RNA aptamers: from concept to the acute care clinic**  
[Bruce A Sullenger](#) – Surgical Sciences, Cardiovascular Biology Laboratory, Duke University School of Medicine - Durham, US
- 2.00 - 2.30 p.m. **U1 Adaptor silencing technology**  
[Sam I Gunderson](#) – Dept. of Mol. Biology & Biochemistry, Rutgers University - Piscataway, US
- 2.30 - 2.50 p.m. *Coffee Break*
- 2.50 - 3.20 p.m. **RNA Aptamers and RNA activation in common and rare diseases**  
[Nagy Habib](#) – Dept. of Surgery & Cancer, Hammersmith Hospital, Imperial College London - London, GB
- 3.20 - 3.50 p.m. **Applying lessons learned from Duchenne exon skipping therapy development to the N=1 setting**  
[Annemieke Aartsma-Rus](#) – Dept. of Human Genetics, Leiden University - Leiden, NL
- 3.50 - 4.20 p.m. **The coming of age of RNA-cleaving DNazymes**  
[Manuel Etzkorn](#) – Helmholtz Research Center Juelich & Heinrich-Heine-Univ. Duesseldorf, DE
- 4.20 - 4.40 p.m. **Announcement of the Poster Prize Winners**  
Michal Ruth Schweiger and Roman-Ulrich Müller
- 4.40 - 5.00 p.m. *Coffee Break*
- 5.00 - 6.00 p.m. **CMMC Symposium Key Note Lecture II  
RNAi therapeutics, The next chapter**  
[Akshay Vaishnaw](#) – Alnylam Pharmaceuticals - Cambridge, US  
Laudation for the key note speaker by Markus Stoffel



Please visit the CMMC Symposium 2023 Webpage  
for further information

<https://www.cmmc-uni-koeln.de/events/cmmc-symposium-2023>



**Session V CRISPR and RNA-protein interaction and modulation**

**Chairs** Roman-Ulrich Müller and Simon Pöpsel - Cologne, DE

- 9.00 - 9.30 a.m. **Riboregulation: biology, mechanisms and scope**  
[Matthias Hentze](#) – European Molecular Biology Laboratory (EMBL) University of Heidelberg, Molecular Medicine Partnership Unit - Heidelberg, DE
- 9.30 - 10.00 a.m. **Modulating the conformation and function of disease-relevant RNA with small molecules**  
[Amanda E Hargrove](#) – Dept. of Chemistry, Dept. of Biochemistry, Duke University - Durham, US
- 10.00 - 10.20 a.m. *Coffee Break*
- 10.20 - 10.50 p.m. **Development of small molecule inhibitors of SARS-CoV-2 cap methylase**  
[Thomas Tuschl](#) - Lab. of RNA Molecular Biology, The Rockefeller University - New York City, US
- 10.50 - 11.20 a.m. **New frontiers in CRISPR-Cas, beyond RNA-guided nucleases**  
[Ailong, Ke](#) – Dept. of Chemistry and Chemical Biology, Cornell University - Ithaca, US
- 11.20 - 11.50 a.m. **Genome editing: what we have learned in preclinical models**  
[Gerald Schwank](#) – Inst. of Pharmacology and Toxicology, University of Zurich, CH
- 11.50 - 12.30 p.m. *Lunch Break (free lunch for all participants)*

**Session VI Preclinical and Clinical Application**

**Chairs** Hien Nguyen and Michal R Schweiger - Cologne, DE

- 12.30 - 1.00 p.m. **RNAi therapeutics for chronic HBV**  
[Man-Fung Yuen](#) – Div. of Gastroenterology & Hepatology, University of Hong Kong, HK
- 1.00 - 1.30 p.m. **Short presentation given by the three poster awardees**  
(3 x 10 min. short talk)
- 1.30 - 1.45 p.m. *Coffee Break*
- 1.45 - 2.15 p.m. **Nucleic Acid Platforms: US and EU regulatory challenges**  
[Jacob S Sherkow](#) - College of Law, University of Illinois - Urbana-Champaign, US
- 2.15 - 2.45 p.m. **Nucleic acid therapeutics for Huntington's disease: challenges and opportunities**  
[Sarah Tabrizi](#) – Huntington's Disease Centre and Dept. of Neurodegenerative Disease, National Hospital for Neurology and Neurosurgery, UCL Institute of Neurology - London, GB
- 2.45 - 3.15 p.m. **ASO therapeutics becoming clinical routine?**  
[Richard Finkel](#) – St. Jude Children's Research Hospital - Memphis, US
- 3.15 - 3.30 p.m. **Summary, open questions, concluding remarks**  
Michal Ruth Schweiger - Markus Stoffel - Roman-Ulrich Müller

**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](mailto:debora.grosskopf-kroiher@uni-koeln.de)

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