

# 33<sup>rd</sup> Ernst Klenk Symposium in Molecular Medicine

**CMMC** CENTER FOR  
MOLECULAR MEDICINE  
COLOGNE



certified with  
12 CME credits

October, 15 - 17, 2017 in Cologne

**Tissue regeneration, wound healing and fibrosis:  
Translating basic concepts into regenerative therapy.**

## Program

### Scientific Coordination

**Sabine Werner** ETH Zurich - Zurich, CH  
and **Sabine Eming** - Catherin Niemann - Thomas Krieg - Cologne, DE

Cologne Ernst Klenk Symposium Committee 2017

**Sabine Eming** - Catherin Niemann - Thomas Krieg (Chairs)

Carien M Niessen - Matthias Hammerschmidt - Claus Cursiefen - Bernhard Schermer - Debora Grosskopf-Kroiher  
Thomas Benzing

### Organized by:

Center for Molecular Medicine Cologne (CMCC) - University of Cologne - [www.cmmc-uni-koeln.de](http://www.cmmc-uni-koeln.de)

### In cooperation with

[CECAD Cologne](#) - [Cluster of Excellence](#) • [Clinical Trials Centre Cologne \(ZKS Köln\)](#) • [CRC 829](#) • [FOR 2240](#) • [CRC 670](#)  
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[Dept. of Dermatology and Venerology](#) • [Center for Biochemistry](#) • [Sybacol](#) • [University Hospital Cologne](#) • [ORPHEUS](#) •  
[BioRiver - Life Science im Rheinland e.V.](#) • [Cologne Convention Bureau](#)

**Participation in the meeting is free of charge - free registration required.**

Further information and free registration:

<http://www.cmmc-uni-koeln.de/de/events/ernst-klenk-symposium/ernst-klenk-symposium-2017/>

**DFG** Deutsche  
Forschungsgemeinschaft

Poster Presentation Klenk Symposium 2017

In case you missed the deadline for the poster abstract submission, please get in contact with  
[debora.grosskopf-kroiher@uni-koeln.de](mailto:debora.grosskopf-kroiher@uni-koeln.de)

Sunday – Oct. 15, 2017

### 12.50 p.m. Welcome Address

**Thomas Krieg** Dean - Medical Faculty, University of Cologne

**Thomas Benzing** Chair - Center for Molecular Medicine Cologne, University of Cologne

**Sabine Werner** - **Sabine Eming** - **Catherin Niemann** - **Thomas Krieg**

Scientific Coordinators - Ernst Klenk Symposium 2017

### Session I Exploring molecular concepts of cell renewal and stem cell function in tissue maintenance and repair

**Chairs** Sabine Werner (Zurich) – Matthias Hammerschmidt (Institute for Zoology)

#### 1.00 - 1.30 p.m. Live imaging good and bad aspects of the wound inflammatory response

**Paul Martin** - School of Medical Sciences, University of Bristol - Bristol, UK

#### 1.30 - 2.00 p.m. Reprogramming epigenetic memory in regeneration and cancer

**Renato Paro** - ETH Zurich, Zurich and Faculty of Science, University of Basel - Basel CH

#### 2.00 - 2.30 p.m. From planarians to parasites: stem cells and developmental plasticity in flatworms

**Phillip A Newmark** - University of Wisconsin-Madison - Madison, US

#### 2.30 - 3.00 a.m. Coffee Break

**Chairs** Catherin Niemann (CMCC) – Alvaro Rada-Iglesias (CMCC)

#### 3.00 - 3.30 p.m. Stem cells and epithelial homeostasis in mammary gland development

**Ian G Macara** - Vanderbilt University School of Medicine - Nashville, US

#### 3.30 - 4.00 p.m. Exploring stem cell fate regulation through synthetic extracellular matrices

**Matthias P Lutolf** - School of Basic Science, École Polytechnique Fédérale de Lausanne - Lausanne, CH

#### 4.00 - 4.30 p.m. Vascular control of liver development and function

**Hellmut Augustin** - German Cancer Research Center (DKFZ) - Heidelberg, DE

#### 4.30 - 5.00 p.m. Coffee Break

#### 5.00 - 8.30 p.m. Poster session during the Welcome Get-Together (free finger food and drinks)

Selection of three posters for the Poster Awards

### Poster Presentation - Klenk Symposium 2017

The Poster Abstract Book – Klenk Symposium 2017 will be soon available for download.

We are pleased to announce that we received 78 poster abstracts related to following topics:

- A Exploring molecular concepts of cell renewal & stem cell function in tissue maintenance & repair**
- B Mechanisms of cellular communication in tissue regeneration, repair and fibrosis**
- C New strategies of targeting the immune response in tissue remodeling**
- D Challenges and perspectives for translating scientific discoveries in regenerative medicine**

The poster track is intended as a forum that provides an opportunity for the authors to present ongoing research activities /results and thereby promoting scientific interaction. For further information, please visit:

<http://www.cmmc-uni-koeln.de/events/ernst-klenk-symposium/ernst-klenk-symposium-2017/poster-presentation/>

### Poster Award

The Klenk Poster Award 2017 of the Center for Molecular Medicine Cologne (CMCC) will be awarded to the presenting author of the three most outstanding poster contributions. The awardees of the poster prizes are invited to give a short presentation (10 min.) during the last session on Tuesday, Oct. 17, 2017.

## Monday - Oct. 16, 2017

### Session II Mechanisms of cellular communication in tissue regeneration, repair and fibrosis

**Chairs** Beate Eckes (Dept. of Dermatology) – Gerhard Sengle (Institute for Biochemistry II)

- 9.00 - 9.30 a.m. **Scar Wars: fibroblast lineages and fibrosis**  
[Michael T Longaker](#) - Stanford University School of Medicine - Stanford, US
- 9.30 - 10.00 a.m. **Mechanotransduction and cell-matrix interaction regulates collective cell migration**  
[Joachim P Spatz](#) - Max-Planck-Institute for Medical Research - Heidelberg, DE
- 10.00 - 10.30 a.m. **Muscle stem cell regenerative decline with aging**  
[Pura Munoz-Canoves](#) - ICREA and Pompeu Fabra University - Barcelona, ES
- 10.30 - 11.00 a.m. *Coffee Break*
- Chairs** Cornelia Mauch (Dept. of Dermatology) – Reinhard Büttner (Institute for Pathology)
- 11.00 - 11.30 a.m. **Do fibroblast growth factors regulate fibrosis?**  
[David M Ormitz](#) - Washington University School of Medicine - St. Louis, US
- 11.30 - 12.00 a.m. **p53 at the junction of tissue regeneration and cancer**  
[Raffaella Sordella](#) - Cold Spring Harbor Laboratory - Cold Spring Harbor, US
- 12.00 - 12.30 p.m. **Multistep cancer stromal cell activation and evolution**  
[Gian-Paolo Dotto](#) - University of Lausanne - Lausanne, CH
- 12.30 - 2.00 p.m. *Lunch Break with Poster Presentation (free soup and sandwiches for all participants)*

### Session III New strategies of targeting the immune response in tissue remodeling

**Chairs** Martin Krönke (Vice Chair of the CMMC) – Sabine Eming (Dept. of Dermatology)

- 2.00 - 2.30 p.m. **Type 2 immunity in tissue regeneration and fibrosis**  
[Thomas A Wynn](#) - National Institute of Allergy and Infectious Diseases, NIH - Bethesda, US
- 2.30 - 3.00 p.m. **Immune cell-adipose tissue interactions during infection**  
[Edward J Pearce](#) - Max-Planck-Institut für Immunbiologie und Epigenetik - Freiburg, DE
- 3.00 - 3.30 p.m. **Imaging the role of innate immunity in tissue repair**  
[Paul Kubes](#) - University of Calgary - Calgary, CA
- 3.30 - 3.50 p.m. *Coffee Break*
- Chairs** Manolis Pasparakis (CECAD Cologne) – Hamid Kashkar (IMMHI)
- 3.50 - 4.00 p.m. **Announcement of the Poster Awards** - Sabine Eming and Catherin Niemann
- 4.00 - 4.30 p.m. **Development of hepatoprotective and pro-regenerative strategies: learning from nature**  
[Matias A Avila](#) - Center for Applied Medical Research, University of Navarra - Pamplona, ES
- 4.30 - 5.00 p.m. **Immune Strategies for accelerating regeneration**  
[Nadia A Rosenthal](#) - The Jackson Laboratory - Bar Harbor, US
- 5.00 - 5.30 p.m. **On the role of the immune system in supporting and fighting liver damage and liver cancer**  
[Mathias Heikenwälder](#) - German Cancer Research Center (DKFZ) - Heidelberg, DE
- 5.30 - 6.00 p.m. *Coffee Break*

Ernst Klenk  
Lecture:  
6.00 - 7.00 p.m. **How to control your neighbor – stromal epithelial cross-talk in tissue repair and inflammatory disease**  
Sabine Werner - Institute for Molecular Health Sciences, ETH Zurich - Zurich, CH  
Laudation: Thomas Krieg

## Tuesday - Oct. 17, 2017

### Session IV Challenges and perspectives for translating scientific discoveries in regenerative medicine

**Chairs** Carlen Niessen (CECAD Cologne) – Claus Cursiefen (Dept. of Ophthalmology)

- 9.00 - 9.30 a.m. **Cell and tissue therapy. Advances in science and practice**  
[Robert S Kirsner](#) - University of Miami Miller School of Medicine - Miami, US
- 9.30 - 10.00 a.m. **Developing induced pluripotent stem (iPS) cell-based therapy for inherited skin diseases**  
[Dennis R Roop](#) - School of Medicine, University of Colorado Anschutz Medical Campus - Aurora, US
- 10.00 - 10.30 a.m. **GPS: Navigating the pathway for regenerative therapy**  
[Robert Sackstein](#) - Brigham and Women's Hospital and Harvard Medical School - Boston, US
- 10.30 - 11.00 a.m. *Coffee Break*
- Chairs** Thomas Benzing (Chair of the CMMC) – Björn Schumacher (CECAD Cologne)
- 11.00 - 11.30 a.m. **ES Tumor associated macrophages: from mechanism to therapy**  
[Jeffrey W Pollard](#) - University of Edinburgh - Edinburgh, UK
- 11.30 - 12.00 p.m. **Regenerating the damaged heart by stimulating cardiomyocyte proliferation**  
[Jeroen Bakkers](#) - Hubrecht Institute, University Medical Centre Utrecht - Utrecht, NL
- 12.00 - 12.30 p.m. **CRISPR-Cas9 genome editing, from mechanism to therapy**  
[Jacob E Corn](#) - Dept. of Molecular and Cell Biology and Innovative Genomics Institute, University of California - Berkeley, US
- 12.30 - 1.00 p.m. **Short presentation of the three poster awardees (3 x 10 min. short talk)**
- 1.00 - 1.15 p.m. **Summary, open questions, concluding remarks**  
Sabine Werner - Sabine Eming - Catherin Niemann - Thomas Krieg

#### General Information

The meeting is open and no registration or attendance fee is required.  
Participation is free of charge - free registration is required.

Childcare is provided by Spielland, University Hospital Cologne.

If you require an official invitation letter for travel refunding or visa issues, please contact  
Debora Grosskopf-Kroiher - [debora.grosskopf-kroiher@uni-koeln.de](mailto:debora.grosskopf-kroiher@uni-koeln.de)

Center for Molecular Medicine Cologne (CMMC), Univ. of Cologne  
CMMC Research Building, Robert-Koch-Str. 21, 50931 Cologne, Germany

#### Venue

Main Lecture Hall, Faculty of Medicine, University of Cologne  
Access only possible from Joseph-Stelzmann-Str. 26 - please follow the yellow Klenk signs.  
<http://www.cmmc-uni-koeln.de/events/ernst-klenk-symposium/ernst-klenk-symposium-2017/venue/>

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