

Speakers and chairpersons
(in alphabetical order)

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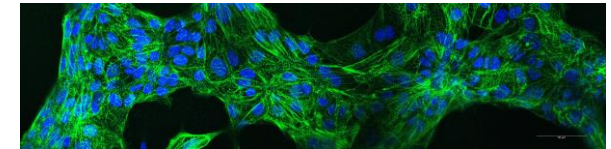
Wolfram-Hubertus Zimmermann

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University Medical Center Göttingen,
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**2nd Cologne Conference on
Cardiac Regeneration
and Cell Therapy**

**September 26-27, 2019
Cologne, Germany**

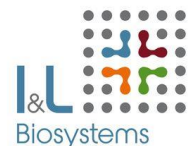


Scientific Coordinators:

Kurt Pfannkuche

Tomo Šarić

<https://www.cococare.de/registration/>



Dear Colleagues and Friends,

Welcome to the 2nd Cologne Conference on Cardiac Regeneration and Cell Therapy. Heart failure and underlying diseases are the most frequent cause of death in adults worldwide. In recent years, cell-based and cell-free regenerative approaches have been extensively explored as a promising alternative to existing pharmacological and surgical therapies for these conditions. Different types of stem cells of adult and embryonic origin as well as derivatives of pluripotent stem cells have been tested in animal models alone or in combinations as candidates for cardiac repair. Many of these approaches have also been tested in clinical trials. Among cell-free therapeutic products, biomaterials and extracellular vesicles secreted by progenitor cells are also being explored as safer alternatives for cardiac repair. These new cell-free products alone or in combination with cellular therapeutics are now being tested in animal models but have not yet been applied in humans.

Although it is generally accepted that the injection of various cell types or cell-free reagents into the site of tissue injury may exert therapeutic effects, very few regenerative approaches have either proved their efficacy in humans or significantly outperformed standard pharmacological or surgical treatments. Therefore, further research and collaboration across disciplines is necessary to advance the field.

The purpose of this conference is to bring together basic scientists, regulatory experts and clinicians with different backgrounds and expertise in order to exchange ideas and discuss new developments in this important research area. We hope that you will benefit from this conference and wish you a pleasant stay in Cologne.

Yours sincerely,



Tomo Šarić

Kurt Pfannkuche

Thursday, September 26th, 2019

09:15 – 9:30 Welcome address

M. Paulsson, *Associate Dean (Research) of the Medical Faculty*
T. Šarić, K. Pfannkuche, *Symposium organizers*

Session 1: Keynotes

Chairs: K. Pfannkuche and W. Röhl

09:30 – 10:00 Jürgen Hescheler

Stem cells for basic research and regenerative medicine

10:00 – 10:45 Gabriele Pfitzer

Lessons from mice and men: How biomechanical properties of the sarcomere determine heart function in health and disease

Coffee Break and Networking 10:45 - 11:15

Session 2: Cell-Based Therapies

Chairs: F. Prósper and B. Fleischmann

11:15 – 11:45 Bernd Fleischmann

Plasticity in the neonatal and adult heart

11:45 – 12:15 Hossein Baharvand

Pluripotent stem cell-derived cardiac progenitors: A platform for synthetic developmental biology of the human heart

12:15 – 12:35 Early-stage researcher: Sarkawt Hamad

Differentiation of human iPSC-derived cardiomyocytes

12:35 – 12:55 Early-stage researcher: Stephanie Pieroth

Hydrogel spheroids as a new substrate for bioreactor culture

Lunch Break 13:00 - 14:00

Company presentations

14:00 – 14:15 Product presentation

I&L Biosystems GmbH

14:15 – 14:30 Product presentation

Nippon Genetics Europe

14:30 – 14:45 Product presentation

Miltenyi Biotec GmbH

Session 3: Endogenous Heart Regeneration

Chairs: H. Baharvand and V. Khlebnikov

14:45 – 15:15 Felipe Prósper

Identification of mechanisms of cardiac repair using single cell transcriptomics of cardiac fibroblasts after myocardial infarction

15:15 – 15:45 Wilhelm Röhl

Prevention of post-infarct arrhythmia by overexpression of connexin 43 within the murine myocardial scar

Coffee Break and Networking 15:45 - 16:15

Session 4: Cell-free Heart Regeneration

Chairs: L. Kurian and A. M. Climent

16:15 – 16:45 Joost P. G. Sluijter

Advancing myocardial repair, do we need the cells?

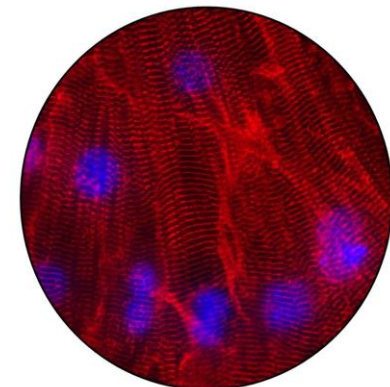
16:45 – 17:15 Marie-José Goumans

Epicardial derived signaling and exosomes to stimulated endogenous cardiac repair

17:15 – 17:30 Early-stage researcher presentation

Title pending

17:30– 19:00 Poster session and networking



Friday, September 27th, 2019

Session 5: Organization, regulation and modelling

Chairs: J. P. G. Sluijter and C. Dieterich

09:30 – 10:00 Andreu M. Climent

A global framework of the cardiovascular regenerative medicine: The TACTICs / CARE effort

10:00 – 10:30 Egbert Flory

Development and regulatory aspects of ATMPs

10:30 – 11:00 Peter Ertl

Chips-in-organs & organs-on-chips

Coffee Break and Networking 11:00 - 11:30

Session 6: Non-coding RNAs in Heart Regeneration

Chairs: F. Engel and W. Zimmermann

11:30 – 12:00 Christoph Dieterich

Sequence, structure and interactions of circular RNAs in cardiovascular diseases

12:00 – 12:30 Leo Kurian

Making & breaking the heart

12:30 – 12:45 Early-stage researcher presentation

Title pending

Lunch Break 12:45 - 14:00

Session 7: Cardiac Tissue Engineering and Monitoring

Chairs: M.-J. Goumans and T. Šarić

14:00 – 14:30 Wolfgang Zimmermann

Tissue Engineered Heart Repair

14:30 – 15:00 Felix Engel

Heart regeneration: From cardiomyocyte proliferation to cardiac tissue engineering

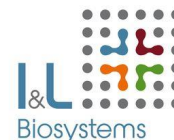
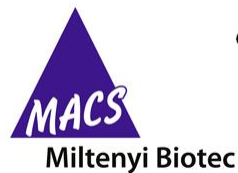
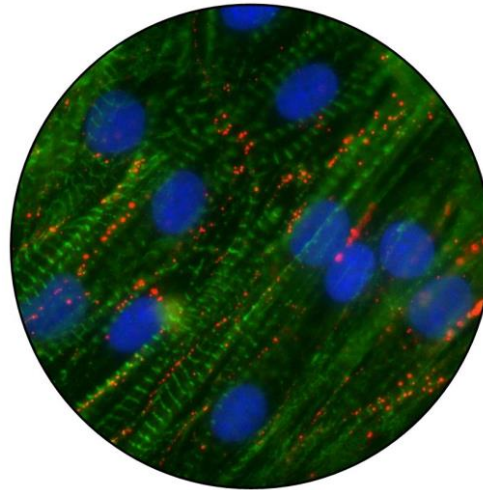
15:00 – 15:30 Vitaliy Khlebnikov

Non-invasive monitoring of tissue engineering therapies with CEST-MRI

15:30 – 16:00 Marcel Halbach

Electrical integration of transplanted cardiomyocytes

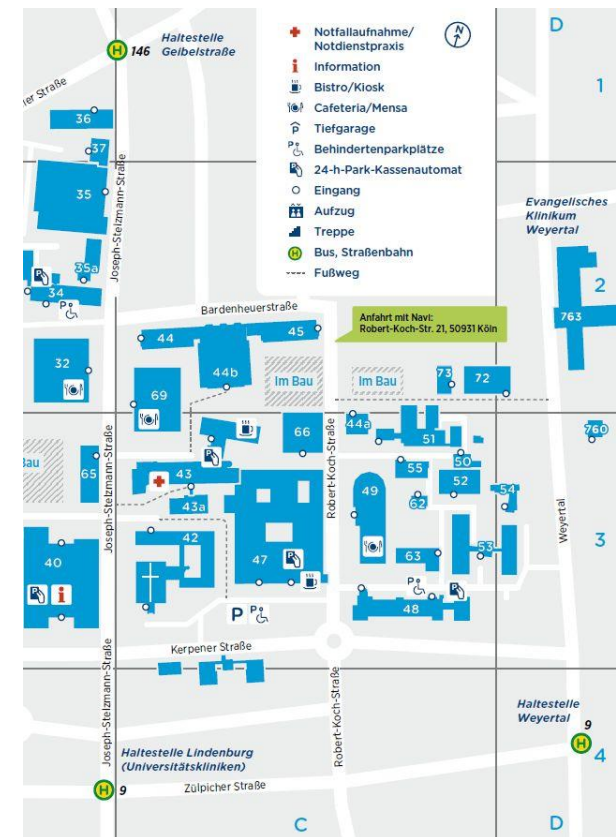
16:00 – 16:15 Concluding remarks and closure



Venue:

Uniklinik Köln
Center for Physiology and Pathophysiology
Robert-Koch-Str. 39
Building 44b
Cologne, Germany

Area map:



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