

## Faculty

**Bergmann, Olaf, MD, PhD** | Center for Regenerative Therapie, TU Dresden, Germany

**Braun, Thomas, MD** | Max-Planck-Institut für Herz- und Lungenforschung, Bad Nauheim, Germany

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**Kuhn, Michaela, MD** | Physiologisches Institut I, Universität Würzburg, Germany

**Lavine, Kory, MD, PhD** | Cardiovascular Division, Washington University School of Medicine, St. Louis, MO, USA

**Leuschner, Florian, MD** | Innere Medizin III, Kardiologie, Angiologie und Pneumologie, Universitätsklinikum Heidelberg, Germany

**Massberg, Steffen, MD** | Medizinische Klinik und Poliklinik I, Klinikum der Universität München, Germany

**Mercader Huber, Nadia, PhD** | Institut für Anatomie, Entwicklungsbiologie und Regeneration, Universität Bern, Switzerland

**Molkentin, Jeffery D., PhD** | Howard Hughes Medical Institute, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, USA

**Rassaf, Tienush, MD** | Klinik für Kardiologie am Westdeutschen Herz- und Gefäßzentrum, Universitätsklinikum Essen, Germany

**Riley, Paul, PhD** | Department of Physiology, Anatomy and Genetics, University of Oxford, Great Britain

**Schrader, Jürgen, MD** | Institut für Molekulare Kardiologie, Universitätsklinikum Düsseldorf, Germany

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## General Information

### Scientific Committee

**Fischer, Jens W., PhD** | Institut für Pharmakologie und Klinische Pharmakologie, Universitätsklinikum Düsseldorf, Germany

**Fleischmann, Bernd K., MD** | Institut für Physiologie 1, Life & Brain Center, Universitätsklinikum Bonn, Germany

**Frantz, Stefan, MD** | Medizinische Klinik und Poliklinik I, Universitätsklinikum Würzburg, Germany

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### Venue / Hotel

**Hyatt Regency Düsseldorf**

Speditionsstraße 19 | 40221 Düsseldorf | Germany

Phone: +49(0)211.91341234

### Congress Office

The congress office will be open:

Friday from 11.30 a.m. to 18.00 p.m.

Saturday from 8.30 a.m. to 16.30 p.m.

Phone: +49(0)170.7115006

### Registration

Since the number of participants is limited, please register in advance using the homepage of the SFB 1116 „www.sfb1116.hhu.de“

The participation of the Leopoldina/SFB 1116 Symposium is free of charge.

### Supported by



## INTERNATIONAL LEOPOLDINA SFB 1116 SYMPOSIUM



## INFLAMMATION AND REGENERATION OF THE INJURED HEART

December 1st - 2nd, 2017

HYATT Regency Hotel | Düsseldorf | Germany

## Welcome

Dear Colleagues,

Hereby we cordially invite you to participate in the Symposium on “Inflammation and Regeneration of the injured Heart”, which is organized by the Comprehensive Research Center 1116 (SFB 1116) with financial support of the German Academy of Science, Leopoldina.

The aim of this symposium is to bring together basic and clinical scientists interested in the immune and fibroblast responses of the heart after myocardial injury with those researchers working at the forefront in cardiac regeneration. In recent years it became increasingly apparent that the tissue microenvironment shapes the transcriptomic landscape of individual cells and that a pro-regenerative immune system is an important trigger for potential downstream repair mechanisms including suppression of cardiac fibrosis. Endogenous precursor cells for de-novo cardiomyocyte formation may involve, cardiac resident stem cells, epicardium derived cells, cardiac fibroblasts and dedifferentiation of existing cardiomyocytes followed cell cycle reentry. From studies in amphibian, fish and mammalian models it became clear that the immune system and other non myocytic cells determine the cellular and molecular response within the injured heart and thereby influences the success of endogenous repair mechanisms.

We hope that the discussion initiated by this Symposium will trigger new experiments, new collaborations, finally leading to new solutions which will move the field forward. This will be essential for the far-reaching goal: to develop new therapeutic strategies for infarct healing and regeneration in humans.



Jens W. Fischer



Jürgen Schrader

## Program | Friday, December 1<sup>st</sup>

12:15 p.m. **Welcome**  
Jens W. Fischer, Jürgen Schrader  
Nikolaj Klöcker, Dean of the Faculty of Medicine

**Cardiac Fibroblasts I**  
Chairs: Johannes Waltenberger, Tienush Rassaf

12:30 – 13:00 p.m.  
**Targeting activated cardiac fibroblasts in physiology and disease**  
Nina Wettschurek

13:00 – 13:30 p.m.  
**The cellular basis of cardiac regeneration**  
Jeffery Molkenin

13:30 – 14:00 p.m.  
**Harnessing fibroblast properties to ameliorate heart failure**  
Milena B. Furtado

14:00 – 14:30 p.m.  
**Coffee break**

**Cardiac Fibroblasts II**  
Chairs: Norbert Frey, Hugo Katus

14:30 – 15:00 p.m.  
**A poor man´s approach to cardiac repair: Make better scars?**  
Peter Kohl

15:00 – 15:30 p.m.  
**Hyaluronan determines immune responses and fibroblast phenotypes after myocardial infarction**  
Jens W. Fischer

15:30 – 16:00 p.m.  
**RNA-based therapy of myocardial disease**  
Stefan Engelhardt

16:00 – 16:30 p.m.  
**Coffee break**

**Inflammatory Cells I**  
Chairs: Georg Ertl, Malte Kelm

16:30 – 17:00 p.m.  
**Resident cardiac macrophages and tissue repair after myocardial injury**  
Slava Epelman

17:00 – 17:30 p.m.  
**Modulation of the monocyte response following myocardial infarction**  
Florian Leuschner

17:30 – 18:00 p.m.  
**Cardiac fibroblast regulation of inflammation**  
Michelle Tallquist

## Program | Saturday, December 2<sup>nd</sup>

**Inflammatory Cells II**  
Chairs: Andreas Deussen, Michaela Kuhn

08:30 – 9:00 a.m.  
**Macrophage diversity in cardiac, regeneration and recovery**  
Kory Lavine

09:00 – 09:30 a.m.  
**Basic and translational aspects of inflammation in heart failure**  
Stefan Frantz

09:30 – 10:00 a.m.  
**Purinergic signaling on T-cells and epicardial cells in cardiac repair**  
Jürgen Schrader

10:00 – 10:30 a.m.  
**Targeting therapeutic immunomodulation via the cardiac lymphatics**  
Paul Riley

10:30 – 11:00 a.m.  
**Coffee break**

**Cardiac Regeneration I**  
Chairs: Thomas Eschenhagen, Axel Gödecke

11:00 – 11:30 a.m.  
**Plasticity in the neonatal and adult heart**  
Bernd K. Fleischmann

11:30 – 12:00 a.m.  
**A tale of two cities: Recent developments in cardiac generation and regeneration**  
Sean M. Wu

**Keynote lecture**  
Introduction: Axel Gödecke

12:00 – 12:45 p.m.  
**Organ remodeling and repair in the cardiovascular system**  
Thomas Braun

12:45 – 14:00 p.m.  
**Lunch**

**Cardiac Regeneration II**  
Chairs: Ingrid Fleming, Steffen Massberg

14:00 – 14:30 p.m.  
**Characterization of a macrophage subtype involved in organ regeneration in the zebrafish**  
Nadia Mercader Huber

14:30 – 15:00 p.m.  
**Nuclear architecture and lineage commitment**  
Jonathan A. Epstein

15:00 – 15:15 p.m.  
**Coffee break**

15:15 – 15:45 p.m.  
**Cardiomyocyte renewal in homeostasis and disease**  
Olaf Bergmann

15:45 – 16:15 p.m.  
**New inflammatory-cell derived secreted proteins: Function and therapeutic potential after MI**  
Kai C. Wollert

**End**