

Dear Colleagues and Friends,

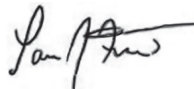
we welcome you to the 9th Cologne Conference on Heart Failure 2009. Diseases of the cardiovascular system remain the principal cause of death worldwide. Despite progress in the understanding of the pathophysiology of these diseases and the development of new treatment strategies, further research is needed in order to improve the outcome of patients with cardiovascular disease. Over the past 15 years the exploration of the regenerative capacity of heart tissue and the attempt to use this knowledge for the development of novel therapies was one major focus of cardiovascular research. With further validation, growth factor, gene and (Stem) cell-based therapy for myocardial and vascular regeneration may offer hope to many patients suffering from heart disease. However, many questions remain unanswered and, albeit intriguing as a potentially powerful treatment strategy, it is still uncertain whether the regenerative approach will be part of evidence based cardiovascular therapy in the future.

The purpose of this conference is to bring together basic scientists from different fields of research and clinicians in order to discuss new developments in this important field of research. The meeting focuses on mechanisms of cell protection and regeneration in cardiovascular disease, and the exploration of their therapeutic potential. We hope that you will enjoy the conference and wish you a pleasant stay in Cologne.


Yours sincerely,



Erland Erdmann



Loren J. Field



Jochen Müller-Ehmsen

## Speakers and Chairpersons Cologne Conference on Heart Failure 2009

**Birgit Aßmus**, Priv.-Doz. Dr. med.  
Medizinische Klinik III, Klinikum der J.-W. Goethe-Universität, Frankfurt

**Wilhelm Bloch**, Prof. Dr. med.  
Direktor, Institut für Kreislaufforschung und Sportmedizin,  
Deutsche Sporthochschule, Köln

**Kenneth R. Boheler**, Ph.D.  
Head, Molecular Cardiology Unit, Lab. of Cardiovascular Sciences/ NIA, Gerontology Research Center, Baltimore, MD, USA

**Andreas Bollmann**, Prof. Dr. med.  
Abteilung für Rhythmologie, Herzzentrum, Universität Leipzig

**Konrad Brockmeier**, Prof. Dr. med.  
Direktor, Klinik für Kinderkardiologie, Herzzentrum, Uniklinik Köln

**Yeong-Hoon Choi**, Dr. med.  
Klinik und Poliklinik für Herz- und Thoraxchirurgie, Herzzentrum, Uniklinik Köln

**Helmut Drexler**, Prof. Dr. med.  
Direktor, Klinik für Kardiologie und Angiologie  
Zentrum für Innere Medizin, Medizinische Hochschule Hannover

**Stefan Engelhardt**, Prof. Dr. med. Dr. rer. nat.  
Direktor, Institut für Pharmakologie und Toxikologie, Technische Universität München

**Erland Erdmann**, Prof. Dr. med.  
Direktor, Klinik III für Innere Medizin, Herzzentrum, Uniklinik Köln

**Thomas Eschenhagen**, Prof. Dr. med.  
Direktor, Inst. f. Exp. und Klin. Pharmakologie u. Toxikologie, Universitätsklinikum Hamburg-Eppendorf

**Loren J. Field**, Ph.D., Professor of Medicine  
Kranert Institute of Cardiology, Cancer Research Institute, Indiana University School of Medicine, Indianapolis, IN, USA

**Bernd K. Fleischmann**, Prof. Dr. med.  
Direktor, Institut für Physiologie I, Universitätsklinikum Bonn

**Wolfgang-Michael Franz**, Prof. Dr. med.  
Medizinische Klinik und Poliklinik I, Klinikum Großhadern, Ludwig-Maximilians-Universität München

**Lior Gepstein**, M.D., Ph.D., Prof. of Physiology  
Rappaport Institute, Technion-Israel Institute of Technology, Haifa, Israel

**Marie-José Goumans**, M.D., Ph.D.  
Molecular Cell Biology, University Medical Center Leiden, NL

**Roger J. Hajjar**, M.D., Professor of Medicine  
Director, Cardiovascular Research Center, Mount Sinai Medical School, New York, NY, USA

**Marcel Halbach**, Dr. med.  
Klinik III für Innere Medizin, Herzzentrum, Uniklinik Köln

**Gerd Hasenfuß**, Prof. Dr. med.  
Direktor, Abtl. Kardiologie und Pneumologie, Universitätsmedizin, Georg-August-Universität Göttingen

**Jürgen Hescheler**, Prof. Dr. med.  
Direktor, Institut für Neurophysiologie, Uniklinik Köln

**Gerd Heusch**, Prof. Dr. med.  
Direktor, Abteilung für Pathophysiologie  
Zentrum für Innere Medizin, Universitätsklinikum Essen

**Uta C. Hoppe**, Prof. Dr. med.  
Klinik III für Innere Medizin, Herzzentrum, Uniklinik Köln

**Markus Khalil**, Dr. med.  
Klinik für Kinderkardiologie, Herzzentrum, Uniklinik Köln

**Benjamin Krausgrill**, Dr. med.  
Institut für Neurophysiologie, Uniklinik Köln

**Linda van Laake**, M.D., Ph.D.  
Department of Cardiology, Hart Long Centrum, UMC Utrecht, NL

**Dennis C. Ladage**, Dr. med.  
Cardiovascular Research Center, Mount Sinai Medical School, New York, NY, USA

**Samuel Lee**, Dr. med.  
Klinik III für Innere Medizin, Herzzentrum, Uniklinik Köln

**Jonathan Leor**, M.D., Professor of Medicine  
Director, Neufeld Cardiac Research Institute  
Sheba Medical Center, Tel-Hashomer, Israel

**Jochen Müller-Ehmsen**, Priv.-Doz. Dr. med.  
Klinik III für Innere Medizin, Herzzentrum, Uniklinik Köln

**Burkert Pieske**, Prof. Dr. med.  
Direktor, Klinische Abteilung für Kardiologie, Medizinische Universitätsklinik Graz, AUT

**Hans Michael Piper**, Prof. Dr. med. Dr. phil.  
Rektor, Heinrich-Heine-Universität Düsseldorf

**Hannes Reuter**, Priv.-Doz. Dr. med.  
Klinik III für Innere Medizin, Herzzentrum, Uniklinik Köln

**Stephan Rosenkranz**, Priv.-Doz. Dr. med.  
Klinik III für Innere Medizin, Herzzentrum, Uniklinik Köln

**Pilar Ruiz-Lozano**, Ph.D.  
Burnham Institute for Medical Research, La Jolla, CA, USA

**Tomo Saric**, Dr. med. Dr. rer. nat.  
Institut für Neurophysiologie, Uniklinik Köln

**Philipp Sasse**, Dr. med.  
Institut für Physiologie I, Universitätsklinikum Bonn

**Rainer Schulz**, Prof. Dr. med.  
Abtl. für Pathophysiologie, Zentrum für Innere Medizin, Universitätsklinikum Essen

**Nicola Smart**, M.D.  
Molecular Medicine Unit, UCL-Institute of Child Health, London, GB

**Christof Stamm**, Prof. Dr. med.  
Abtl. für Herz-, Thorax- und Gefäßchirurgie, Deutsches Herzzentrum Berlin

**Thorsten Wahlers**, Prof. Dr. med.  
Direktor, Klinik und Poliklinik für Herz- und Thoraxchirurgie, Herzzentrum, Uniklinik Köln

**Joachim Weil**, Prof. Dr. med.  
Medizinische Klinik II, Universitätsklinikum Schleswig-Holstein Campus Lübeck

**Thorsten Wittwer**, Prof. Dr. med.  
Klinik und Poliklinik für Herz- und Thoraxchirurgie Herzzentrum, Uniklinik Köln

**Kai C. Wollert**, Prof. Dr. med.  
Klinik für Kardiologie und Angiologie  
Zentrum für Innere Medizin,  
Medizinische Hochschule Hannover

**Wolfram Zimmermann**, Prof. Dr. med.  
Direktor, Abtl. für Pharmakologie  
Zentrum Pharmakologie und Toxikologie, Universitätsmedizin  
Georg-August-Universität Göttingen

**Carsten Zobel**, Priv.-Doz. Dr. med.  
Klinik III für Innere Medizin, Herzzentrum, Uniklinik Köln



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**M<sup>9th</sup> COLOGNE CONFERENCE 2009**

9th Cologne Conference  
on Heart Failure  
- Cardiac Protection and  
Regeneration



**March 13-14, 2009**  
Cologne, Germany

Barcelo Hotel  
Cologne City Center  
-Raum Hohenzollern-  
Habsburger Ring 9-13  
50674 Köln

**CME Points requested**

**Scientific Coordinators:**  
Jochen Müller-Ehmsen (Cologne)  
Loren Field (Indianapolis)  
Erland Erdmann (Cologne)

## FRIDAY March 13th, 2009

- 8:30 - 8:40 Welcome address - J. Müller-Ehmsen  
8:40 - 8:50 Welcome address - E. Erdmann

### SESSION 1 - 8:50 - 10:30

#### Heart failure - the common trunk of cardiovascular disease

Chairs: G. Heusch, E. Erdmann

- 8:50 - 9:10 H. Reuter - Role of G protein signalling in the development of diabetic cardiomyopathy  
9:10 - 9:30 C. Zobel - Hypertrophy, mechanisms and consequences  
9:30 - 9:50 P. Ruiz-Lozano - New links between regulation of contractility and hypertrophy  
9:50 - 10:10 S. Engelhardt - Role of micro RNA in the development of heart failure  
10:10 - 10:30 U. Hoppe - Role of mitochondrial ion channels in heart failure and cardioprotection

#### 20 Minute Break

### SESSION 2, 10:50 - 12:30

#### Growth factors and gene therapy for cardioprotection/ regeneration:

Chairs: H. Drexler, H. Piper

- 10:50 - 11:10 R. Schulz - preconditioning to prevent cell death  
11:10 - 11:30 S. Rosenkranz - Role of tyrosin kinases in vascular and cardiac damage/survival  
11:30 - 11:50 D. Ladage - Periostin as single growth factor  
11:50 - 12:10 W.-M. Franz - The role of mobilisation and homing of bone marrow derived stem cells for cardiac protection and repair  
12:10 - 12:30 L. Field - cell cycle based repair

#### 12:30 - 14:00 Lunch

### SESSION 3 - 14:00 - 15:40

#### Stem cells for cardiac regeneration - embryonic stem cells

Chairs: L. Gepstein, J. Müller-Ehmsen

- 14:00 - 14:20 K. Boheler - Proliferation vs. differentiation in ES cells

- 14:20 - 14:40 B. Krausgrill - Cell loss after transplantation of embryonic stem cell derived cardiomyocytes

- 14:40 - 15:00 L. van Laake - hESC- derived cardiomyocytes and cardiac repair in rodents

- 15:00 - 15:20 T. Saric - Induced pluripotent stem cells as a valid source of cardiomyocytes

- 15:20 - 15:40 J. Leor: Alternative approaches for infarct repair

#### 20 Minute Break

### SESSION 4 - 16:00 - 17:40

#### Stem cells for cardiac regeneration - adult derived stem cells

Chairs: J. Hescheler, K. Brockmeier

- 16:00 - 16:20 G. Hasenfuß - spermatogonial derived cells

- 16:20 - 16:40 W. Zimmermann - parthenogenetic stem cells

- 16:40 - 17:00 M. Goumans - Endogenous cardiac progenitor cells

- 17:00 - 17:20 N. Smart - Adult epicardial-derived stem cells

- 17:20 - 17:40 Y. Choi - Skeletal myoblasts

#### 19:00 Bus transfer to MS Jan von Werth

#### 19:30 - 22:30 Dinner cruise on the river Rhine

## SATURDAY, MARCH 14TH, 2009

### SESSION 5 - 8:30 - 9:50

#### Cell based therapy in humans

Chairs: T. Eschenhagen, J. Weil

- 8:30 - 8:50 K. Wollert - Evidence for the effect of cellular factors

- 8:50 - 9:10 C. Stamm - The surgical perspective of successful cell therapy

- 9:10 - 9:30 B. Aßmus - REPAIR-AMI: What did we learn? Where are we going?

- 9:30 - 9:50 R. Hajjar - SERCA2a gene therapy

#### 10 Minute Break

### SESSION 6 - 10:00 - 11:40

#### Following the fate/integration of injected cells

Chairs: L. Field, B. Fleischmann

- 10:00-10:20 M. Halbach - Electrical integration of grafted cells

- 10:20 - 10:40 P. Sasse - Role of Cx 43 for the integration of grafted cells

- 10:40 - 11:00 L. Gepstein - Cell therapy for biological pacemaker

- 11:00 - 11:20 M. Khalil - Electrical coupling in vitro

- 11:20 - 11:40 W. Bloch - Activation, migration and integration of stem cells

#### 10 Minute Coffee Break

### SESSION 7 - 11:50 - 13:10

#### The clinical novelties and perspectives in the treatment of heart failure

Chairs: E. Erdmann, T. Wahlers

- 11:50 - 12:10 T. Wittwer - Assist devices and other new surgical approaches

- 12:10 - 12:30 S. Lee - Treating sleep apnea is treating heart failure

- 12:30 - 12:50 A. Bollmann - Device therapy: presence and future

- 12:50 - 13:10 B. Pieske - New drugs on the horizon?

- 13:10 - 13:15 Concluding remarks - L. Field

#### 13:15 Lunch

#### 15:00 Afternoon program and conference dinner

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