

# Integrated Research Training Group Aortic Disease



IRTG TRR 259 – Aortic Disease

## Target group:

Students interested in pursuing a doctoral degree in molecular medicine, particularly those interested in cardiovascular diseases

## Aim of the program:

Train highly talented doctoral researchers and medical doctoral (MD) researchers in order to support the next generation of researchers and clinicians in molecular cardiology. The goal is to bring together scientists from the lab and clinic to create stronger ties between these disciplines, in the hopes of developing new therapies for aortic diseases.

## Language of the program:

English

## Participating institutions:

### ❖ Rheinische Friedrich-Wilhelms-Universität **Bonn**

Speaker: PD Dr. med. Felix Jansen

- *Med. Klinik u. Poliklinik II, Herzzentrum Bonn*
- *Inst. für Klinische Chemie u. Klinische Pharmakologie*
- *Inst. für Angeborene Immunität*
- *Inst. für Experimentelle Immunologie*
- *Inst. für Physiologie I*
- *Inst. für Pharmkologie u. Toxikologie*

### ❖ Universität zu **Köln**

Speaker: PD Dr. rer. nat. Gerhard Sengle

- *Klinik III für Innere Medizin - Kardiologie, Pneumologie, Angiologie u. internistische Intensivmedizin*
- *Zentrum für Biochemie, Inst. für Biochemie II*

### ❖ Heinrich-Heine-Universität **Düsseldorf**

Speaker: Prof. Dr. rer. nat. Judith Haendeler

- *Klinik für Kardiologie, Pneumologie u. Angiologie*
- *Inst. für Molekulare Kardiologie*
- *Klinik für Gefäß- u. Endovaskularchirurgie*
- *Leibniz-Institut für umweltmedizinische Forschung*

**Detailed description:** The iRTG Aortic Disease provides an interdisciplinary and systematic educational program to build expertise in basic cardiovascular research and to guarantee professional and transferable skills for future career development. Students from the program are educated in the basic principles of aortic disease development, covering pathophysiological mechanisms, immunological pathways, and pharmacological and interventional therapeutic approaches. Students can learn state-of-the-art techniques required to perform cutting-edge research, including the fundamentals of cell culture, complex animal experiments and phenotyping, molecular biology, imaging, flow cytometry, etc. In addition to the fundamentals of laboratory research, students are instructed in basic topics, such as the protection of animals, bioethics, and the socioeconomical framework of science. In addition, students can choose among various soft skills courses, including project management and communication, presentation, didactic, and leadership skills, as well as techniques for composing successful grant and job applications. The iRTG Aortic Disease emphasizes the importance of translational research and the development of basic science that is tailored towards actual medical need. Clinical workshops are designed to expose the students to cardiovascular medicine, including all the modern diagnostic and therapeutic possibilities.

**Application:** Applications are currently being accepted for doctoral students at all three locations (Bonn, Cologne, Düsseldorf) until the end of August 2019. Applicants should send their application as a single PDF file including cover letter, CV, scanned academic degrees, list of publications, and the contact details for two references to Dr. Meghan Campbell.

**Contact:**

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