The recently funded Transregio SFB 259:

**Aortic Disease**

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is now searching for **PhD students (m/f/d)** (65%, German TV-L E13) for each of its three locations, at the **University of Bonn, University of Cologne, and Heinrich Heine University Düsseldorf, Germany**.

The goal of the Collaborative Research Center (SFB) is to bring together knowledge and expertise of some of the top researchers in cardiovascular disease to tackle the problem of aortic disease. PhD students will be integrated into the local graduate programs with outstanding training opportunities in multidisciplinary, interconnected scientific fields, and supported by additional mentoring and networking opportunities, but also enjoy a number of services, workshops, and seminars that are exclusive to the Aortic Disease graduate program. The three universities involved offer state-of-the-art technologies, high-end laboratories, a vibrant scientific network, structured career development programs, and an internationally competitive scientific training program.

The 15 projects within the TR/SFB 259 aim to address the underlying resident and non-resident molecular and cellular mechanisms of aortic disease, with a particular focus on aortic valve stenosis, aortic aneurysm, and aortic dissection. To date, the only treatments available for aortic disease have been surgical, invasive, and reactionary, thus, earlier indicators of disease are desperately needed. With this in mind, projects were selected for this consortium to collaboratively address the following fundamental questions:

1) What are the key cellular players in the innate and adaptive immune processes that are involved in aortic disease?
2) Which danger signals, mediators, and cytokines govern the pathological interaction between circulating cells and resident cells?
3) How do platelets and perivascular adipocytes contribute to aortic disease?
4) What is the role of endothelial cell specificity, mechano-transduction, and extracellular vesicle release for the initiation and progression of aortic disease?
5) Which specific signaling pathways in interstitial smooth muscle cells drive aortic disease?
6) How do resident cell death pathways influence aortic wall inflammation and extracellular matrix composition?
7) What are the detailed mechanisms and consequences of modification of the extracellular matrix in the aorta?
8) Which are the underlying genes involved in human aortic disease?

The ideal candidate will be highly motivated and team-oriented with a strong interest in cardiovascular diseases. Candidates should hold a diploma or a master's degree in a life-science-related discipline, such as molecular biomedicine, physiology, immunology, biochemistry or cell biology. Experience working with *in vitro* experimental models, flow cytometry, small animal models, or gene sequencing are advantageous. Excellent command of spoken and written English, communication skills, as well as interdisciplinary thinking are essential.
We offer:
- A salary according to the German salary scale, 65% TV-L E13
- Workshops, seminars, and retreats specific for the TR/SFB 259
- Numerous “soft skills” courses on scientific communication, project management, etc.
- Subsidized public transport (“Jobticket”) is available
- There is also a possibility to use the university day care center
- Supplementary benefits in the public sector (pension plan according to VBL)

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. More information on scientific projects and project leaders will be provided during the recruitment process. Successful candidates can begin on August 1, 2019 or later and will be located in Bonn, Cologne, or Düsseldorf. The positions are initially limited to three years with the possibility of extension.

The University of Bonn is committed to diversity and equal opportunity. It is certified as a family-friendly university. It aims to increase the proportion of women in areas where women are under-represented and to promote their careers in particular. It therefore urges women with relevant qualifications to apply. Applications will be handled in accordance with the Landesgleichstellungsgesetz (State Equality Act). Applications from suitable individuals with a certified serious disability and those of equal status are particularly welcome.

Please send your application to the coordination office for the graduate program of the TR/SFB 259, to the attention of Dr. Meghan Campbell (mcampbell@uni-bonn.de). Please refer to the reference number 398_2019 until three weeks after publication.