Applicants

The overall educational aim of this CCRC is to train highly talented PhD/MD students in cardiovascular science as a prelude to producing the next generation of researchers and clinicians in this important area. To this end, one of our specific training goals is for PhD/MD students to complete their research within a three- to four-year time frame while receiving a top-level scientific education and appropriate career development training.

A unique aspect of this CCRC program is the basic research mechanism-focused approach and the close link to the clinical setting at the University of Cologne Heart Center and beyond. Our vision is that the CCRC will provide an innovative and interdisciplinary education for our PhD and MD students by integrating cutting-edge research projects with collaborative supervision complemented by a structured training program – all of which will be hosted within a firmly established network of researchers and clinicians and outstanding facilities and support services.

The CCRC was initiated as the first step to establish structured research training in basic cardiovascular science as well as large clinical programs on structural heart disease, electrophysiology, kidney disease, and pulmonary hypertension. A unique aspect of our program is that it actively encourages highly talented MD students to enroll, thereby supporting their research track within the Medical Faculty. Thus, the CCRC’s Graduate Program not only aims to train the next generation of cardiovascular scientists, but also to provide an ideal environment for aspiring MD researchers. Since the program is specifically designed to foster close collaborations between different groups in general and basic researchers and clinicians in particular, interdisciplinary collaborations are a central core to our approach. Of note is that this previously (in 2013) established CCRC Graduate Program has also brought direct benefits to PIs and PhD/MD students alike.

Open Positions

CCRC Graduate Program GRK 2407
Scholarships 2019

The University of Cologne is offering the following scholarships to its DFG-funded Cologne Cardiovascular Research Center (CCRC) Graduate Program “Inflammatory and Cellular Stress Signaling: Switches to Vascular Dysfunction” for highly qualified and outstanding master and medical students.

The objective of the offered undergraduate scholarships is to integrate highly qualified and outstanding medical students and master students of natural sciences into ongoing CCRC
research projects.

International guest students are more than welcome to join the graduate program and spend a research period in Germany. The University of Cologne strives to increase the share of women in the University and hence also strongly encourages women to apply. Applicants with disabilities who are equally qualified will be favored.

**MD doctoral thesis scholarships (12 months)**

Target group: Undergraduate research scholars (f/m) (medical students interested in basic research-oriented doctoral thesis)

Aim: “Help to prepare MD students for a scientific research career in the field of cardiovascular medicine”

Funding: 735€ / month

**Student Research Track Internships (6 weeks)**

Target group: Undergraduate research scholars (f/m) (medical students), preferably first and second year students, participation in research track desirable

Aim: “Supporting highly motivated and outstanding young MD students in fostering the interest and skills for basic cardiovascular research”

Funding: as SHK (maximum of 735€/6 weeks)

**Qualification scholarships (12 months)**

Target group: Students with a B.Sc. degree about to finish their education which qualifies candidates for a research-based doctorate in one of the CCRC research project (f/m) (science students)

Aim: “Qualification for research-based doctorate in cardiovascular sciences”

Funding: 735€ / month

For additional information, please contact our CCRC coordinator Dr. Monika Schlosser by Email monika.schlosser@uk-koeln.de. Please provide your CV (including grade average of secondary school-leaving certificate and current transcript of records of your current study program) and a short statement explaining your motivation to apply for the scholarships in Cologne Cardiovascular Research Center (maximal 1 page).

We encourage highly motivated students to apply at any time.

Bachelor/Master students in Natural Sciences

We offer motivated and highly talented Bachelor and Master Students in Natural Sciences to perform their Bachelor or Master Thesis in one of the CCRC projects.
This includes the opportunity to participate in all activities offered to PhD/MD PhD students (see PhD/MD PhD students).

In addition, you can apply for a Qualification Scholarship during your Master Thesis (see Open Positions).

Medical Students

The CCRC was initiated as the first step to establish structured research training in basic cardiovascular science as well as large clinical programs on structural heart disease, electrophysiology, kidney disease, and pulmonary hypertension. A unique aspect of our program is that it actively encourages highly talented MD students to enroll, thereby supporting their research track within the Medical Faculty. Thus, the CCRC’s Graduate Program not only aims to train the next generation of cardiovascular scientists, but also to provide an ideal environment for aspiring MD researchers. Since the program is specifically designed to foster close collaborations between different groups in general and basic researchers and clinicians in particular, interdisciplinary collaborations are a central core to our approach. Of note is that this previously (in 2013) established CCRC Graduate Program has also brought direct benefits to PIs and PhD/MD students alike.

For highly talented MDs and MD students who are interested in basic research science, supporting instruments are already established at the UoC at different levels. For example, the "Research Track" aims at informing interested and motivated MD students about basic and translational research opportunities as a first step to recruiting them as doctoral candidates. Moreover, the IPMM specifically offers an "MD/PhD" interdisciplinary graduate program that provides medically-oriented additional training and educational opportunities. Within this framework, the CCRC provides specific projects and training in cardiovascular science. Finally, the Medical Faculty has funds available that can relieve MD researchers from their clinical duties while they pursue a research career, and such rotation position will be available to the CCRC.

In accordance with established structures at UoC, the CCRC offers highly talented MD´s and MD students to be enrolled into the program as early career “short-term” stipends during "Research Track" for up to six weeks (see Open Positions), through medical doctoral fellowships in medicine for up to one year (see Open Positions) within the GSHZ, and via the MD/PhD program for at least three years after completed medical training (see PhD/MD PhD students).

Medical Students are encouraged to take part in all activities for PhD/MD PhD students in the CCRC (see PhD/MD PhD students) (see Figure 4.2).

Physicians

The CCRC provides rotating positions for MD´s to relieve research-oriented MD´s from their clinical duties and facilitate their admission into the CCRC MD/PhD program. This allows you to work in a basic research environment for up to 1 year.

PhD/MD PhD students

The CCRC was initiated as the first step to establish structured research training in basic
cardiovascular science as well as large clinical programs on structural heart disease, electrophysiology, kidney disease, and pulmonary hypertension. A unique aspect of our program is that it actively encourages highly talented MD students to enroll, thereby supporting their research track within the Medical Faculty. Thus, the CCRC’s Graduate Program not only aims to train the next generation of cardiovascular scientists, but also to provide an ideal environment for aspiring MD researchers. Since the program is specifically designed to foster close collaborations between different groups in general and basic researchers and clinicians in particular, interdisciplinary collaborations are a central core to our approach. Of note is that this previously (in 2013) established CCRC Graduate Program has also brought direct benefits to PIs and PhD/MD students alike (table 1).

To achieve the educational aim and to ensure a structured, high-level, and quality-controlled scientific education as well as a successful completion of the PhD/MD research projects, there is a core curriculum of the RTG, which intends to (1) give students the opportunity to find the topic for their thesis which best suits their main interest, (2) optimally promote their research and education, and (3) ensure their development in a framework and schedule that helps them to keep track of their scientific achievements, but make necessary adjustments within their research projects.

The introductory phase, which will last for approximately 5 weeks, will facilitate the student’s arrival in Cologne and start in the program, and will include a 3-day ”Meet & Greet” event, a one week Training Module given by the CCRC PI’s and associated researchers, and 1-day visits to the laboratories of the participating PI´s as well as the core facilities.

Introduction Week as Training Module
Students will be offered a compact lecture series that will give the incoming PhD/MD students a scientific introduction and overview to the areas of research offered by the CCRC. The lectures will be held by the participating PIs, and the associated researchers representing the core facilities. Furthermore, this training module will also contain an introductory seminar on ”Good Scientific Practice”.

Lab visits
The Training Module will be followed by 1-day lab visits to the labs of each of the participating PIs, as well as the core facilities. This will facilitate personal communications and getting to know each other, and further inform the incoming students about ongoing research in the participating labs and technical facilities. Additionally, students will be offered a 1-day tour through the clinics and medical facilities at the UoC Heart Center to get accustomed to the local structures in cardiovascular medicine and to learn about the clinical relevance of their research.

The RTG will have a three-pronged approach to ensure outstanding research training for its participants by (1) ensuring high quality in cardiovascular PhD/MD training, (2) promoting international visibility and selecting the best PhD/MD students, and (3) offering a diverse array of medical-oriented, research-related, and career development activities and training modules.

Supervision as regular meetings and written reports
This CCRC recognizes that performing an outstanding PhD can be a challenge. Therefore, to better help facilitate this process in terms of educational and training experience, scientific
productivity, and ultimately, career success, all PhD projects will be assessed internally to ensure innovative and cutting-edge projects which can be realistically performed within the three (four)-year timeframe.

Each MD/PhD student will be guided, mentored, and supported by a Thesis Advisory Committee (TAC), consisting of the respective PI of the project, two independent senior scientists with complementary expertise, and a postdoctoral fellow. The inclusion of a postdoctoral fellow at TAC meetings is a new measure aimed at broadening his/her scientific education in general and enhancing their supervision and mentoring skills in particular as a first step to greater scientific independence. This will allow us to establish a collaborative supervisitional approach in which each student will have access to two PIs to discuss problems and progress on a regular basis. Finally, to ensure that the project is suitably advancing, each student will have regular meetings with his/her Thesis Advisory Committee (TAC). In addition to regular TAC meetings, PhD students are asked to submit regular progress reports.

**Quality control measures and Management Committee**

The CCRC RTG will be embedded in the established structured programs of the IPMM and GSfBS for which stringent quality control (QC) measures are already in place. To maintain these high levels of education, this RTG will set up a Management Committee that will consist of the CCRC RTG’s coordinator, all participating PIs, two PhD/MD student representatives, a part-time CCRC central management officer, and the IPMM and GSfBS coordinators. A central management and service office headed by the CCRC RTG’s coordinator will provide administrative support for all aspects of the program, such as recruiting, facilitating the assessment process of applicant eligibility and selection, supporting the admissions process, monitoring of research progress, as well as scheduling and organizing training activities, etc.