



# BIOMEDIGS HANDBOOK

Guidelines for Students  
and Supervisors



Herausgeber:  
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## BIOMEDIGS

The Biomedical International Graduate School of the University of Regensburg is an institution of the Faculty of Medicine. The graduate school offers a dynamic interdisciplinary program committed to the training of the next generation of independent-minded biomedical experts. It provides profound scientific skills in a state-of-the-art research environment dedicated to the study of molecular mechanisms of disease for improved diagnostics and treatment.

BIOMEDIGS offers doctoral students not only a broad spectrum of research opportunities predominantly in the fields of immunology, oncology, and cell physiology, but also the flexibility to tailor individual work plans according to their research interests and personal strengths. Successful realization of the initially set objectives and goals is facilitated by regular interaction with three or more mentors, who provide in-depth insight and guidance.

Adherence to graduate program regulations and guidelines, including admission and graduation, is overseen by a doctoral committee ("Promotionskommission") of five university teachers appointed by the Faculty of Medicine for a four-year term. The committee confers four times a year. For deadlines and dates of committee meetings, as well as forms and regulations, check

<https://www.uni-regensburg.de/medizin/fakultaet/akademisches/graduierten-und-nachwuchsprogramme/biomedizinische-wissenschaften/index.html>

### Admission: How to join BIOMEDIGS

The admission requirements for the Biomedical Sciences program may appear strict. However, it is our goal to select the very best students with the greatest promise of becoming leading scientists in academia and industry. Requirements for a successful application, as outlined in the doctoral regulations ("Promotionsordnung"), include a university or university of applied sciences ("Hochschule für angewandte Wissenschaften") master degree in the natural or life sciences, pharmacy, engineering, or a doctorate in human or veterinary medicine. The final grade has to be equal or better than 2.0. Gifted students with an excellent bachelor's degree awarded by a university, but not a university of applied sciences, may be admitted under the condition

that they take additional classes relevant to their dissertation if necessary. Beyond grades, the most important criteria for admission are a student's commitment to research and aspiration for a professional career in biomedicine.

## Application step by step

Applications have to be submitted within three months after commencement of work to the doctoral committee. A complete and successful application must include the following documents:

- Curriculum vitae (incl. applicant's full name and postal address)
- The preliminary title of the thesis
- An at least two-page draft of the dissertation project outlining the background of the project, including relevant citations, major objectives and goals, as well as methods and materials to be employed
- Declaration of supervision by a university professor
- Current official certificate of good conduct
- Attestation of a university or university of applied sciences master degree with a final grade equal or better than 2.0
- A declaration that the student has not been admitted to another graduate program
- Suggestions for a mentoring team

The application needs to be submitted as a print-out with original signatures in addition to a digital version. The application form can be downloaded from the homepage. The BIOMEDIGS office needs to receive the complete application at least ten working days before the doctoral committee's next quarterly meeting.

## Graduate program

The dissertation project should be designed for a working period of approximately 3 years. For this period of time every student is supposed to choose at least 2 mentors in addition to his or her dissertation supervisor. Together, they will form the mentoring team. The mentors have to be university professors or at least habilitated lecturers ("Privatdozent"). At least one of the mentors needs to be a member of the University of Regensburg. The mentoring team must be approved by the doctoral committee, which reserves the right to replace proposed mentors or to add mentors.

In the course of the dissertation every student will have to hold two colloquia 12 and 24 months ( $\pm 1$  month), respectively, into the dissertation project, in case of a three-years-thesis.

If the project lasts longer than 3 years, additional colloquia have to be held at twelve-month intervals ( $\pm 1$  month). The colloquia are supposed to confirm that the project develops in a promising direction. In addition, they offer the opportunity to discuss and improve the work strategy as well as the original research plan. Any changes to the research plan have to be documented in the protocol, which has to be signed by the supervisor and the mentors.

Students are requested to share the content of their colloquium in form of a written progress report with their mentoring team and the doctoral committee at least one week in advance of the scheduled colloquium. The students are responsible for organizing their colloquia. Major impediments that threaten successful graduation, and actions recommended for their resolution should be reported to the doctoral committee.

## The "Leistungsheft"

The goal of the graduate training program is to provide students with the necessary knowledge, intellectual capabilities and technical skills to conduct outstanding biomedical research.

In contrast to other graduate schools, BIOMEDIGS provides its students with

a great deal of freedom but also responsibility. The extent of accomplishments during each dissertation depends on the commitment and performance of each individual student. We request from every student's mentoring team to support him or her in achieving the objectives and goals set forth in the description of the dissertation project submitted to the doctoral committee. Students are free to formally ask the doctoral committee to replace or add mentors to ensure successful completion of the dissertation.

*Obligatory minimum requirements:*

- At least two-page draft of the dissertation project for the application
- Two colloquia consisting of a 4-6-page written progress report for the mentoring team and the doctoral committee, and a 20-minute presentation of data generated and objectives planned for the future. First and second colloquium to be held 11-13 and 23-25 months, respectively, after commencement of work. Additional annual colloquia if thesis lasts longer than the recommended three years.
- At least 4 progress reports in your working group
- At least 4 journal club presentations that can be held in other working groups if the student's supervisor does not offer a journal club
- Active participation (poster or presentation) at one or more national or, preferentially, international meetings
- One first authorship (only original articles, no reviews)
- Course in "Good Scientific Practice"

In addition, supervision of a (method) course or a trainee, who can be a medical student or a bachelor/master student, is strongly recommended in order to train teaching skills.

Of course every student is free to attend multiple conferences, supervise several courses or trainees and is welcome to publish numerous original

articles and reviews. Every achievement has to be recorded in the "Leistungsheft" and countersigned by the supervisor. It may also be presented to future employers.

### *Individual initiative:*

Graduate students may also engage in numerous other activities. According to their respective fields of interest, students can attend methods courses, seminars, and lectures offered at the University Hospital Regensburg or the University of Regensburg, respectively. Courses offered include among others seminars on good scientific practice, biomedical statistics and informatics, scientific writing, and rhetoric, aside from methods courses providing advanced training in molecular genetics, biochemistry, cell and tissue culture, animal testing, and bioanalysis. Students may also participate in the management of the graduate school itself.

## Annual symposium for graduate students (Summer School)

The graduate school RIGeL of the Faculty of Biology and Preclinical Medicine organizes Summer Schools every year, in which students of BIOMEDIGS can take part. The active participation in at least one Summer School is strongly recommended. The symposium provides a unique opportunity for graduate students to meet their peers working on different biological and medical topics and to debate among themselves. It is built on the concept of merging science, socializing, and sharing experiences.

The aim of this symposium is the scientific exchange between students from different departments and different aspects of biological research. Strategies and techniques can be discussed - a deeper insight into the variety of research will be provided.

Most importantly, presentation skills will be trained in a familiar atmosphere.

Thanks to generous sponsoring provided by the Vielberth Stiftung, students can invite one or two keynote speakers from around the world. These engaging visits from reputable international researchers have proven highly effective in advancing the participants' further scientific and personal development.

Furthermore, the conference is attended by representatives from the biomedical industry, who present not only new instrumentation and consumables, but also offer advice for those interested in an industrial career.

## Thesis and doctoral examination

After completion of the experimental work, the student will write his or her doctoral thesis. The work has to be printed on DIN A4 paper, bound and paginated. It has to contain an index, and all references and resources of information have to be indicated properly. A template for the title page and further details can be downloaded from the homepage.

In order to be admitted to the doctoral examination, the graduate student has to submit the completed "Leistungsheft" and proof of at least one first author publication ("accepted" is enough) to the doctoral committee not later than ten working days before the next quarterly committee meeting. The thesis should be submitted before or not later than six weeks after the committee meeting.

Additionally, the student must submit suggestions for two reviewers of the thesis, plus a third examiner, a backup examiner, and a chairman / chairwoman for the defense. A minimum of two members of the examination committee must be ordinary professors.

After submission of the thesis and the doctoral committee's approval, the two reviewers will have 8 weeks to prepare their expert opinions ("Gutachten"). After the Administrative Office ("Geschäftsstelle") has received the opinions, the thesis will be publicly displayed for two weeks to give faculty members time to raise any kind of objections. Only then the doctoral thesis defense, which is open to the public, can take place.

If the dissertation is graded "summa cum laude", the doctoral committee will appoint at its next quarterly meeting a third reviewer, who will be asked to submit his or her expert opinion as soon as possible. Nevertheless, students are advised to be conservative in scheduling the date of their oral defense.



It is the student's duty to arrange with the examination committee a date for the defense of the doctoral thesis. It is advisable to use an internet tool like terminplaner DFN (<https://terminplaner6.dfn.de/>) for scheduling and to start the process as early as possible. Please keep in mind that BIOMEDIGS will not compensate for travelling expenses, prints or other costs arising from the colloquia or the doctoral examination.

The doctoral examination comprises a 20- to 30-minute presentation and the defense, which lasts at least 30 minutes. The chair writes a protocol reflecting the topics of the presentation, the main questions asked by the examiners, and the depth and correctness of answers given by the defendant. The grades given by the examiners and the final grade are documented on the protocol, which will be signed by all members of the graduation committee.

## Thesis publication and doctoral certificate

After the successful doctoral examination, the student submits six printed, bound and paginated DIN A5 versions of the dissertation and a digital version at the university library, together with forms received from the Administrative Office. After publication of the thesis, the student finished the BioMediGS program successfully and he or she receives the doctoral certificate "Dr. rer. physiol."

## Contact

Homepage:

<https://www.uni-regensburg.de/medizin/fakultaet/akademisches/graduierten-und-nachwuchsprogramme/biomedizinische-wissenschaften/index.html>

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