



Regulations for the Doctoral Program in Biomedicine (BioMed)

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I. General Information

The comprehensive study and understanding of organ function in health and disease (physiology and pathophysiology) requires multidisciplinary approaches in basic and applied biomedical research. The Ph.D. program “Biomedicine” (BioMed) is part of the Life Science Zurich Graduate School (LSZGS) and imparts knowledge, concepts and modern technologies to address complex biomedical questions on a molecular, cellular and systemic level with the vision to advance clinical translation and improve patient care. BioMed offers students a strong interactive program that combines groups from the Swiss Federal Institute of Technology in Zürich (ETHZ), the University of Zürich (UZH) and the University Hospital Zürich (USZ). The highly international scientific environment at the three institutions combines cutting-edge research with a modern teaching curriculum.

II. Admission

Applicants must hold a Master's degree or equivalent from a university before starting the BioMed Ph.D. program, but applications can be submitted before obtaining the degree. Applicants should, however, obtain their degree within six months after the application deadline. Admission to a graduate school is a prerequisite for enrollment and obtaining a doctoral degree at the UZH but not ETHZ.

For admission to the BioMed program, students can either apply to the LSZGS (track I) or directly to a research group leader at UZH or ETHZ, who is a member of the BioMed program (track II). Track II candidates can apply to the BioMed program via the LSZGS application tool before the start of the thesis, but no later than 3 months thereafter.

The BioMed program commission consisting of five to eight research group leaders and a student representative reviews all applications and selects the best candidates for an admission interview. Interviews for track I candidates take place twice a year, while interviews for track II candidates take place four times a year. The interviews involve the presentation of a research project (ideally the Master thesis) by the candidate and will determine whether the candidate's scientific knowledge, motivation and English communication skills are sufficient for admission.

Based on the interview, the BioMed program commission decides on the admission of the candidate to the program. Accommodation and travel expenses for the on-site interview of track I applicants are reimbursed by the LSZGS.

Applicants accepted to the program have to register for student status with the faculty of science (MNF) of the UZH or a given department at ETHZ, depending on the affiliation of their future research group.

Candidates who have not been admitted to the BioMed PhD program cannot reapply. Candidates who have previously been rejected from a different doctoral program of the LSZGS cannot apply to the BioMed program.

III. Structure of the BioMed Program

1. Dissertation

Completing a dissertation usually takes 3 to 4 years. During this time, the PhD student should contribute to at least two peer-reviewed publications that are published, accepted for publication or submitted. The PhD student should be the primary author of at least one of these publications. The written dissertation thesis summarizes the own independent scientific research and can be written in a cumulative (several publications) or thesis format.

2. PhD thesis committee

Within 6 months of the beginning of a doctorate, the PhD thesis committee must be formed and communicated to the UZH or ETHZ, respectively, by the official thesis supervisor (responsible faculty member MNF-UZH / responsible group leader ETHZ). The PhD thesis committee consists of at least four members including the official thesis supervisor, the direct thesis supervisor, an external expert (not BioMed) and a dedicated mentor. The direct supervisor or the official supervisor (or both) must be a BioMed member. The official supervisor and direct supervisor can be the same person. In this case, another knowledgeable scientist must be recruited to the committee. Depending on whether the thesis is conducted at the UZH or the ETHZ, two of the members must have the right to confer PhDs at the MNF (UZH) or the ETHZ, respectively. The mentor is appointed by the BioMed program and cannot be from the same institute as the direct thesis supervisor. The official thesis supervisor functions as head of the committee.

3. Mentor

The BioMed program appoints a mentor to each PhD committee. The PhD candidate as well as the direct and official supervisor have the power of veto and can request another mentor in justified cases. After having received a written and justified request, the program will appoint a different person as mentor. The mentor functions as independent counselor for both the PhD student and the other members of the committee and ensures mutual fairness between student, supervisor and committee. The mentor must be BioMed member but shall not be: i) from the same institute, ii) a close collaborator of the direct or official thesis supervisor, iii) involved in the project of the student.

4. PhD thesis committee meetings

The PhD thesis committee supports students over the course of their dissertation. Committee meetings are scheduled to take place after about 6 months, 1.5 years, 2.5 years and, if necessary, 3.5 years. At every meeting, the head of the doctoral committee must keep a transcript of the proceedings (minutes), which has to be signed by her/him and submitted to the coordination office of the BioMed program via the DissGo platform within a week of the meeting. At all meetings, the student has the opportunity to talk to the committee members without the direct thesis supervisor being present. Confidentiality is guaranteed. At all meetings, the direct thesis supervisor has the opportunity to talk to the committee members without the student being present. Confidentiality is guaranteed.

- The 1st meeting includes:
 - o Discussion of the research proposal, which has to be submitted by the PhD student to the BioMed program's coordination office via DissGo and all members of the committee no later than 2 weeks before the meeting (corresponds to the doctoral agreements according to PVO §11 (MNF/UZH). The research proposal must be written in the form of a short grant application (max 3'000 words).
 - o Feedback from the direct thesis supervisor to the PhD student regarding her/his performance during the initial period of the doctorate.
 - o Presentation of the coursework by the PhD student, approval of the coursework by the committee
 - o Students at the MNF/UZH: presentation of plan for teaching duties
- The 2nd meeting must be held at 1.5 years of the start of the thesis and must include:
 - o Submission of a written progress report to the members of the committee no later than 2 weeks before the meeting.
 - o Presentation and discussion of research progress, data and future strategy by the PhD student.
 - o Defense of data and strategy by the student.
 - o Feedback from the committee to the student about her/his performance
 - o Review of the coursework (collection of ECTS credits)
 - o Review of teaching assignments (MNF/UZH students)
- The 3rd meeting must be held at around 2.5 years of the start of the thesis and must include:
 - o Submission of a written progress report to the members of the committee no later than 2 weeks before the meeting.
 - o Presentation of the research project, including scientific background, research data, data interpretation and future research strategy by the PhD student.
 - o Defense of the project, data and strategy by the student. The committee decides on 'pass' or 'no-pass'. At least three members of the committee have to be present. The project defense has to be passed in order for the student to proceed to the final PhD defense. The project defense can be repeated twice within 3 months. In case of 'no-pass' after the second repetition, the student fails the PhD program and will not be awarded the title. The student cannot apply to other PhD programs of the LSZGS.
 - o Review of the coursework (collection of ECTS credits)
 - o Review of teaching assignments (MNF/UZH students)
- A 4th meeting is only mandatory in case the PhD defense does not take place within 1 year of the 3rd meeting. If a 4th meeting is scheduled, it must include:
 - o Submission of a written progress report to the members of the committee no later than 2 weeks before the meeting.
 - o Presentation and discussion of the research project, including scientific background, research data, data interpretation and future research strategy by the PhD student.
 - o Review of the coursework (collection of ECTS credits)
 - o Review of teaching assignments (MNF/UZH students)

5. Coursework within the Ph.D. Program

The program includes a curricular part of at least 12 ECTS credits at UZH, ETHZ or other institutions of higher education. The curricular part is determined individually by each doctoral student but must be approved by the PhD thesis committee at the beginning of the PhD. Any changes to the initial selection must be approved by the PhD thesis committee.

Module / Course		ECTS Credits
Compulsory	<ul style="list-style-type: none"> • Introduction to Scientific Integrity (2h) • Participation in 2 student retreats 	– –
Program specific	Courses for PhDs at UZH/ETHZ	max. 8
Transferable skills	Courses for PhDs at UZH/ETHZ	max. 4
General	Courses at other institutes of higher education	max. 4
Grant proposal	Primary author. Applied sum \geq CHF 20'000 (2 ECTS credits per application)	max. 2
Presentations	Poster or oral presentation at an international conference (1 ECTS credit per poster / presentation)	max. 2
Total		min. 12

6. Teaching assistance

All PhD students at MNF/UZH (but not ETHZ) must participate in teaching for 100-420 hours over the course of their doctoral studies. The realization of this requirement has to be structured in consultation with the Studies Coordination in Biology according to the rules specified in the document "Teaching requirements for PhD students" (www.biologie.uzh.ch/Studium/Doktorat.html).

IV. Doctoral Degree

1. Registration for defense

Students must register for their PhD defense at the MNF Student Affairs Office (PVO §17) or at the respective office of ETH.

2. Circulation round

The circulation round for MNF/UZH students consists of at least two MNF Faculty Members. The dissertation's circulation should be completed no more than 4 weeks after its submission (PVO §19).

3. PhD defense

The PhD thesis defense follows the rules established by the faculty (UZH; PVO §20) or the department (ETH) at which the candidate is registered as a student. Registration at UZH or ETH depends on the affiliation of the official thesis supervisor. Differences in the defense format at UZH and ETH lie, for example, in the length of the presentation and the examination, or whether it is public or not.