



# Regulations for the Doctoral Program in Biomedicine (BioMed)

Version September 26, 2022

based on the [Regulations Governing PhD Studies at the Faculty of Science UZH](#) and the [Regulations Governing PhD Studies at ETH](#).

## I. MISSION STATEMENT

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 PhD 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. PROGRAM OVERVIEW

The international PhD program in Biomedicine (BioMed) is part of the Life Science Zurich Graduate School, offers a variety of courses in topics relevant for biomedical studies and organizes scientific retreats and social events for advancing knowledge and networking. Participating students can choose from a broad selection of topics and participate in cutting edge research. Students will profit from counseling by a dedicated thesis committee that will discuss the student's progress and advice on next steps on an annual basis.



### III. REQUIREMENTS

Students are required to:

- register at the university (UZH or ETHZ) that hosts the supervising Professor
- present and defend their research project (1st committee meeting) or research progress (from the 2nd meeting on) in front of their PhD committee
- collect 12 ECTS
- take part in at least 1 scientific retreat organized by the program
- submit and defend a PhD thesis describing their original research. Regulations regarding the written thesis and defense to obtain the PhD are determined by the dean's offices of the Universities and faculties or departments.
- adhere to any other requirements imposed by the host institution (UZH or ETHZ).

### IV. ADMISSION

Applicants must hold an excellent Master's degree or equivalent in Life Sciences or related fields including, but not limited to (Bio)Informatics, Mathematics, Medical Sciences or (Bio)Engineering from a university before starting the BioMed PhD program. Admission to a graduate school is a prerequisite for enrollment and obtaining a doctoral degree at the UZH but not ETHZ.

Application: <https://www.lifescience-graduateschool.uzh.ch/en/application.html>

#### a. Applications via Track I and Track II

All applications for admittance to the BioMed program must be submitted via the online application tool provided by the Life Science Zurich Graduate School (LSZGS). Interested students can either apply directly to the LSZGS (track I) or after having agreed to a thesis project offered by a research group leader at UZH or ETHZ, who is a member of the BioMed program (track II). Track II candidates need to apply to the BioMed program no later than 3 months after start of their PhD thesis.

Application deadlines for the BioMed Program via track I are December 1<sup>st</sup> and July 1<sup>st</sup>. Applications via track I can be submitted before having obtained the degree but the degree must be received no later than 6 months after the application deadline. Applications via track II are accepted year-round.

#### b. Evaluation and admission interviews

The BioMed program commission consisting of up to ten research group leaders and two student representatives 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 are organized throughout the 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.



Track I applicants invited for an on-site visit will have the opportunity to meet with group leaders of their choice to discuss possible areas of research and PhD projects. The official language of the program is English. Accommodation and travel expenses for the on-site interview of track I applicants are reimbursed by the LSZGS.

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.

### **c. Registration**

The applicants must hold a master's degree or equivalent at the start of their PhD. In order to matriculate at the UZH or ETHZ, they must fulfil the requirements of the respective host institution. A detailed description of the application and admission procedures can be found on the following web pages:

UZH: <https://www.uzh.ch/cmsssl/en/studies/application/apply.html>

ETHZ: <https://www.ethz.ch/en/doctorate.html>

Once matriculated, the student will receive login data for the DissGo platform (all students) and the MNF StudentAdmin database (UZH-MNF students). These online tools are designed to help the student, the program coordinator and the faculty to keep track of the course requirements. The student is obliged to complete the entries and upload all required documents within the stipulated deadlines (milestones).

## **V. PhD THESIS COMMITTEE**

Within 6 months of the beginning of a doctorate, the PhD thesis committee must be formed and communicated to the MNF/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 three members including the official thesis supervisor, the direct thesis supervisor and an external expert (not a member of BioMed). The direct supervisor or the official supervisor (or both) must be BioMed member. The official supervisor and direct supervisor can be the same person. In this case, another knowledgeable scientist is 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 promote at the MNF/UZH or the ETHZ, respectively. The responsible faculty member functions as head of the committee. The names and role of the committee members must be registered in the online database (StudentAdmin and/or DissGo)



## VI. PhD THESIS COMMITTEE MEETINGS

The students are responsible for organizing the meetings that are scheduled to take place at 6 - 12 months, 1.5 - 2 years, 2.5 - 3 years and, if necessary, 3.5 - 4 years after the start of the PhD. The thesis committee meetings can take place virtually or on-site. At least three members including the official supervisor have to be present during the meetings. 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.

### Minutes of the meeting

At every meeting, the head of the doctoral committee must sign a transcript of the proceedings (minutes), which must be submitted to the coordination office of the BioMed program via 'DissGo' (all students) and 'StudentAdmin' (UZH-MNF students) within a week of the meeting. Template of the Minutes can be downloaded from the BioMed webpage:

[https://www.phd-biomed.uzh.ch/en/BioMed\\_docs\\_usef\\_links/BioMed\\_forms\\_download0.html](https://www.phd-biomed.uzh.ch/en/BioMed_docs_usef_links/BioMed_forms_download0.html)

### Research Proposal

The research proposal typically consists of the title of the project, an abstract and a project outline including a timeline. Template of the Research Proposal can be downloaded from the BioMed webpage:

[https://www.phd-biomed.uzh.ch/en/BioMed\\_docs\\_usef\\_links/BioMed\\_forms\\_download0.html](https://www.phd-biomed.uzh.ch/en/BioMed_docs_usef_links/BioMed_forms_download0.html)

### Progress Report

The progress reports typically consist of title of project and report.

Template of the Progress Report can be downloaded from the BioMed webpage:

[https://www.phd-biomed.uzh.ch/en/BioMed\\_docs\\_usef\\_links/BioMed\\_forms\\_download0.html](https://www.phd-biomed.uzh.ch/en/BioMed_docs_usef_links/BioMed_forms_download0.html)

#### i. The 1<sup>st</sup> meeting

- Must be held between 0.5 – 1 year of the start of the thesis.
- Includes the presentation and discussion of the research proposal, which has to be submitted to all members of the committee no later than 2 weeks before the meeting<sup>1</sup>. The research proposal and the minutes of the meeting have to be submitted to the coordination office of the BioMed program via 'DissGo' (all students) and 'StudentAdmin' (UZH-MNF students) within a week after the meeting. The doctoral plan<sup>2</sup> which the ETHZ doctoral students have to submit within twelve months of the start of the PhD and before

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<sup>1</sup> corresponds to the doctoral agreements according to PVO §11 (MNF/UZH)

<sup>2</sup> corresponds to the doctoral agreements according to ETH Zurich Ordinance on the Doctorate, Article 11



the aptitude colloquium<sup>3</sup> can be accepted as research proposal. The aptitude colloquium can be recognized as first committee meeting.

- Includes the presentation of the planned course work (collection of ECTS) and (if applicable) teaching assignments.
- Includes a feedback from the direct thesis supervisor to the PhD student regarding her/his performance during the initial period of the doctorate.
- Ends with the decision on continuation or discontinuation of the PhD thesis.

## ii. The 2<sup>nd</sup> meeting

- Must be held between 1.5 – 2 years of the start of the thesis.
- Requires submission of a written progress report to the members of the committee no later than 2 weeks before the meeting. After the meeting the progress report and the minutes of the meeting have to be submitted to the coordination office of the BioMed program via 'DissGo' (all students) and 'StudentAdmin' (UZH-MNF students) within a week.
- Includes presentation, discussion and defense of research progress, data and future strategy by the PhD student.
- Includes feedback from the committee to the student about her/his performance.
- Includes review of the coursework (collection of ECTS).
- Includes review of teaching assignments (MNF/UZH students).

## iii. The 3<sup>rd</sup> meeting

- Must be held between 2.5 – 3 years of the start of the thesis.
- Requires submission of a written progress report to the members of the committee no later than 2 weeks before the meeting. After the meeting the progress report and the minutes of the meeting have to be submitted to the coordination office of the BioMed program via 'DissGo' (all students) and 'StudentAdmin' (UZH-MNF students) within a week.
- Includes a mock-defense: Presentation, discussion and defense of the research by the PhD student, followed by in-depth questions by the committee. The mock-defense has to be passed (decided by the committee) in order for the student to proceed to the PhD defense. In case of 'no-pass', the mock-defense has to be repeated within 2 months.
- Includes review of the coursework (collection of ECTS).
- Includes review of teaching assignments (MNF/UZH students).

## iv. The 4<sup>th</sup> meeting

- Is mandatory only in case the PhD defense does not take place within 1 year of the 3<sup>rd</sup> meeting. If a 4<sup>th</sup> meeting is scheduled, it must include:
- Submission of a written progress report to the members of the committee no later than 2 weeks before the meeting. After the meeting the progress report and the minutes of

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<sup>3</sup> corresponds to the doctoral agreements according to ETH Zurich Ordinance on the Doctorate, Article 12



the meeting have to be submitted to the coordination office of the BioMed program via 'DissGo' (all students) and 'StudentAdmin' (UZH-MNF students) within a week.

- Presentation and discussion of the research project, including scientific background, research data, data interpretation and future research strategy by the PhD student.
- Review of the coursework (collection of ECTS).
- Review of teaching assignments (MNF/UZH students).

## VII. COURSEWORK

The program includes a curricular part of at least 12 ECTS credits that can be collected through the participation in program-specific courses as detailed on the BioMed homepage, in courses offered by other PhD programs, in transferable skills courses at the UZH or ETHZ or in courses offered by other institutes of higher education.

The participation in advanced courses such as summer schools, also outside of Zurich, are encouraged throughout the PhD program. All courses must fulfil UZH/ETHZ requirements and must be approved by the Supervisor and the PhD thesis committee. In case of doubt of the course validity, the respective BioMed co-director representing the ETHZ or the UZH decides on the allotment of ECTS based on course details, workload and type of certificate.

ECTS can also be allocated to the organization of program-specific retreats or other events provided that the workload corresponds to the requirements.



Module / Course		ECTS Credits
Compulsory	<ul style="list-style-type: none"> <li>• <a href="#">Introduction to Scientific Integrity (2h)</a></li> <li>• Active participation in 1 student retreat by submitting an abstract and presenting the research on a poster or during a talk.</li> </ul>	–
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Program-specific <sup>4</sup>	Courses for PhDs at UZH/ETHZ	max. 8
Transferable skills <sup>5</sup>	Courses for PhDs at UZH/ETHZ	max. 4
General <sup>6</sup>	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 per poster or oral presentation)	max. 2
Organization of events	Organization of a BioMed retreat (or other events) with a workload of at least 30 hours (1 ECTS)	max. 2
Total		min. 12

## VIII. TEACHING

It is obligatory for PhD students of the MNF (UZH) to assist with teaching. A minimum of 150 to a maximum of 420 hours of teaching is required for each student within the Division of Biology. The teachings plan (form) should be discussed with the supervisor and uploaded to [MNF Student Admin](#) database within 6 months of beginning of the PhD.

Teaching regulations and form can be found here:

<https://www.biologie.uzh.ch/de/Studium/Doktorat.html>

For ETH students, no formal teaching requirements exist. Participation in course supervisions need to be discussed on an individual basis with the PhD supervisor.

<sup>4</sup> Courses of a very specific topic that are not equally suitable or of interest for all students (depending on their field of research)

<sup>5</sup> Soft skills with general knowledge like courses about scientific writing or time management

<sup>6</sup> e.g. Summerschool from another Swiss University



## IX. THESIS DEFENSE AND DOCTORAL DEGREE

### a. 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 at the time of defense. 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.

### b. PhD Defense

The PhD thesis defense follows the rules established by the faculty (UZH) or the department (ETHZ) at which the candidate is registered as a student.

UZH: <https://www.mnf.uzh.ch/en/studium/phd/checkliste-fuer-doktorierende.html>

ETHZ: <https://ethz.ch/students/en/doctorate/doctoral-thesis-examination.html>

### c. PhD Diploma

The PhD diploma is conferred either by the UZH or ETHZ, depending on where the student is matriculated.

In addition to the ETHZ or UZH PhD Diploma, the students receive a certificate from the BioMed PhD Program confirming the successfully completed training curriculum during the doctorate.

## X. MENTORS

The BioMed PhD Program offers students and members of the PhD committees independent counseling at any time by a mentor as needed. Counseling aims to secure mutual fairness between members of the committee and the student, in particular in respect to problems arising from students' supervision. Students and committee members can choose from a pool of mentors that generally consists of the members of the BioMed program commission. Mentors are bound to secrecy.

## XI. ACKNOWLEDGING BIOMED ON PUBLICATIONS AND PRESENTATIONS

Any publications with a BioMed PhD student as author or co-author should mention the PhD program "Biomedicine" in the author's affiliation. The PhD program should also be mentioned on posters and in the acknowledgements of scientific talks.





## XII. CONFIDENTIALITY

One important aspect of the PhD program is the exchange of scientific data and results between the different institutes of the participating universities. These results are to be treated with confidentiality and cannot be communicated to individuals outside of the program as long as the results are not published by the author or originator of the data.

Participants of the PhD program cannot use scientific results to the disadvantage of the Universities involved and no participant should obstruct the universities' right to intellectual property by premature publication or other premature announcement of results.