



**TOXICOLOGY**  
Research Training Group

## **Policies and Procedures Manual**

LMU MÜNCHEN TU MÜNCHEN HELMHOLTZ ZENTRUM MÜNCHEN  
INSTITUT FÜR PHARMAKOLOGIE UND TOXIKOLOGIE DER BUNDESWEHR

## Preface

Dear doctoral students of the Research Training Group "Targets in Toxicology",

The Research Training Group (RTG) "Targets in Toxicology" wishes to ensure high-quality supervision and education of its enrolled doctoral students. This manual is intended to help you on your way to achieving a doctorate within our qualification programme.

In this manual, you will find information on the organization of the RTG, the general structure and procedures of the qualification programme, information sheets, as well as templates for all essential forms which you - together with your supervisor - will need to fill in at the beginning of and at defined checkpoints during your thesis work.

In order to continuously improve this manual and the quality of our doctoral programme, we welcome any feedback from your side.

We wish you all the best and every success for your thesis project.

Prof. Dr. Thomas Gudermann

Dr. Claudia Staab-Weijnitz

Speaker, RTG "Targets in Toxicology"

Vice-Speaker, RTG „Targets in Toxicology“

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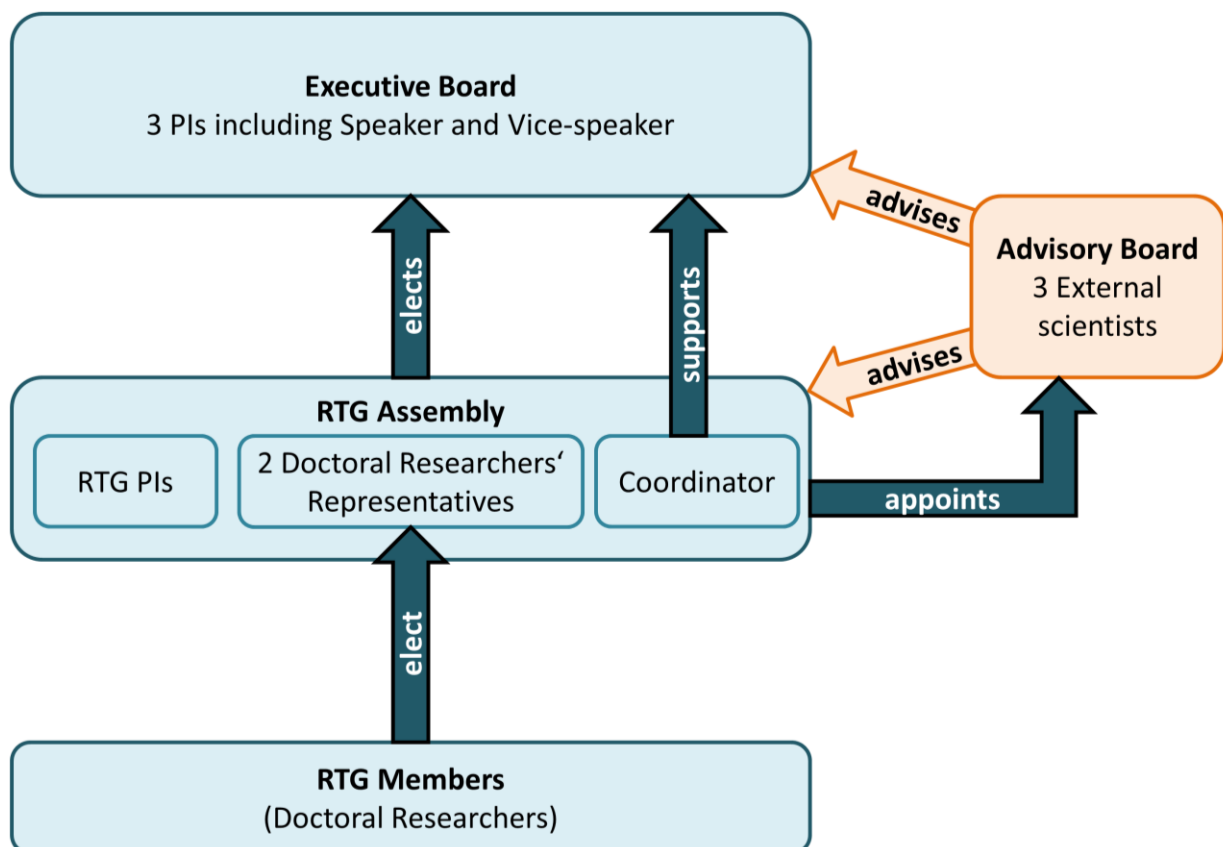
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## 1. General Information

The Research Training Group (RTG) "Targets in Toxicology" implements a state-of-the-art interdisciplinary qualification programme with the long-term aim to educate a new generation of highly qualified toxicologists. Constituting an associated research training group within the **Munich Medical Research School (MMRS)** at the Medical Faculty of the Ludwig-Maximilians-Universität München (LMU), the RTG "Targets in Toxicology" provides a **structured Ph.D. programme (Ph.D. in Medical Research)** with a modular organization which requires the acquisition of **180 ECTS points in a 3-year curriculum**. Medical students may also enrol in the programme for a minimum of 18 months to obtain a **medical doctor (Dr. med.)**.

### 1.1. Organizational Structure

The organizational structure of the RTG "Targets in Toxicology" is depicted in the following schematic overview.



**Figure 1:** Organizational structure of the Research Training Group "Targets in Toxicology"

- The **Executive Board** consists of the designated speaker, the vice-speaker, and one additional PI, and is elected by the RTG assembly. The board will manage the RTG, officially represent the RTG, and ultimately be responsible for the qualification programme, quality control, and finances of the RTG.
- The **Coordinator** supports the Executive Board in scientific and administrative affairs. Most importantly, the coordinator organizes the qualification programme including the international exchange programme.
- Two **Doctoral Researchers' Representatives** are elected on a yearly basis by the doctoral researchers. They represent the doctoral researchers in the RTG assembly. To assure gender equality, one of them must be female.
- The **RTG Assembly** is the main forum for discussion and decision making including the selection of doctoral students. It consists of the participating scientists, the doctoral researchers' representatives, and the coordinator. The RTG Assembly shapes the scientific programme. Except for the coordinator, all members of the RTG Assembly have the right to vote and decisions are made with a majority vote. The assembly will meet at least twice a year; more meetings will be scheduled on demand.
- The **Advisory Board** is appointed by the RTG assembly and consists of three (inter)national scientists with a strong expertise in lung (patho)physiology and/or toxicology as well as in the management of graduate programmes. The Advisory Board will be invited once a year and will advise the Executive Board and the RTG Assembly.

## 1.2. Definition - Doctorate

A doctorate serves as a formal proof of qualification for autonomous scientific work. Within this RTG, the following academic degrees can be obtained at the Munich Medical Research School (MMRS) at the Medical Faculty of LMU Munich:

- Medical Doctor (Dr. med)
- Ph.D. in Medical Research

### 1.3. Duration and structure of qualification programme and doctoral projects

For a structured **Ph.D. in Medical Research**, the qualification programme is based on a 3-year curriculum, in accordance with the regulations of the MMRS (*cf.* Figure 2). For a detailed description of module content, please refer to 2. *Programme Modules*.

For a **Medical Doctor**, medical students are obliged to work on their thesis project for a minimum of 18 months, at least 8 of which must be spent full-time in the laboratory. During this time, medical students must attend a course on good scientific practice, one annual Research Retreat and participate regularly in modules M3 and M4 (*cf.* Figure 2). Medical students apply for membership in the Munich Medical Research School (MMRS) and will become affiliate members of the FoeFoLe programme as well as the RTG and have the possibility to choose lectures and courses from both programmes.

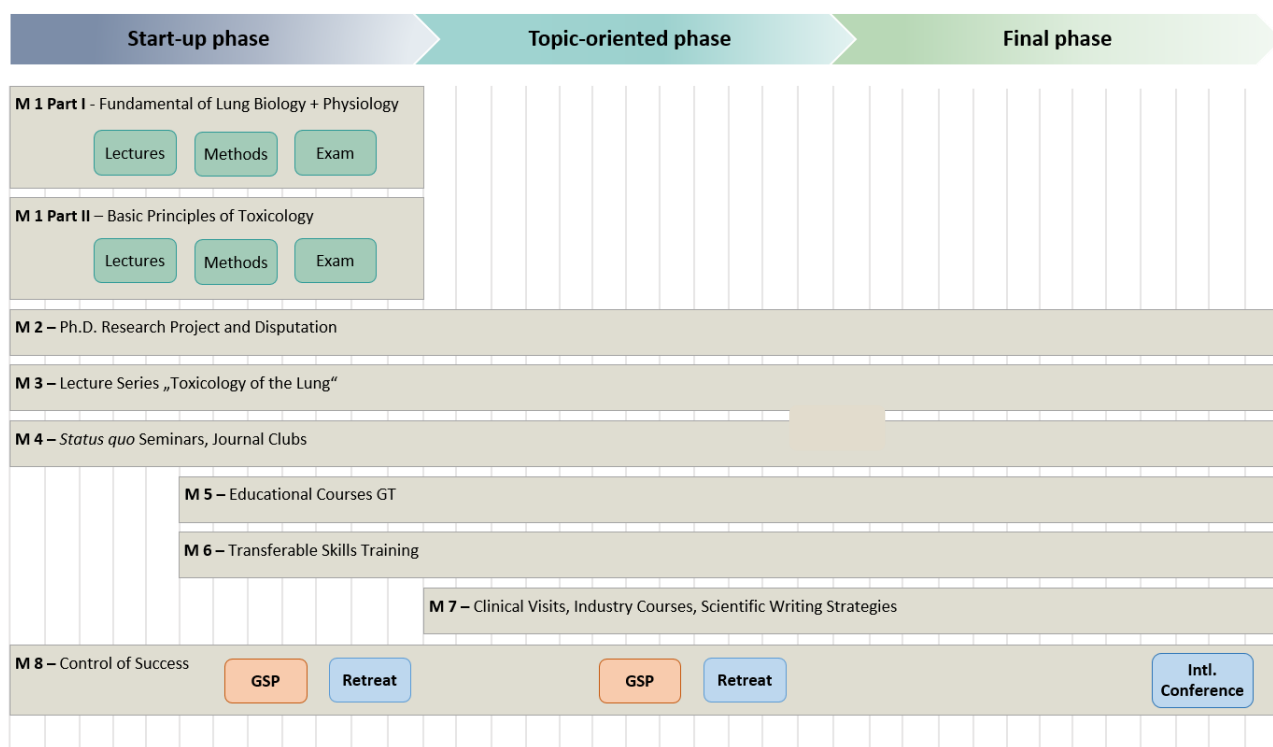


Figure 2: Structure of the qualification programme

### 1.4. Examination regulations (Promotionsordnung)

The doctorate procedures are managed by the doctoral examination board (*Promotionsausschuss*) of the Medical Faculty of LMU Munich. Accordingly, the examination regulations of the Medical Faculty of LMU Munich apply in their currently valid version.

You will find these here:

[https://www.med.uni-muenchen.de/promotion/eigene-ressourcen/phd\\_konsol\\_1-aenderung.pdf](https://www.med.uni-muenchen.de/promotion/eigene-ressourcen/phd_konsol_1-aenderung.pdf)

An English version for international Ph.D. students is available here:

[https://www.en.mmrs.med.uni-muenchen.de/downloads/examination-regulations/promo-phd-2011\\_kons-2017\\_en.pdf](https://www.en.mmrs.med.uni-muenchen.de/downloads/examination-regulations/promo-phd-2011_kons-2017_en.pdf)

## 1.5. Information sheets on doctorate procedures

### Medical students:

You will find an information sheet on acceptance and procedures for the academic degree Medical Doctor (Dr. med.) in the supplement (in German: “*Merkblatt über die Zulassung zur Promotion zum Doktor der (Zahn-)Medizin und zum Verfahrensablauf*”).

Medical students will be integrated into the RTG according to the guidelines of the structured graduate programme for medical students, Förderprogramm für Forschung und Lehre (FoeFoLe). The guidelines can be found here:

<https://www.med.uni-muenchen.de/forschung/foerderprogramme/foefole/index.html>

and here:

[https://www.med.uni-muenchen.de/forschung/foerderprogramme/foefole/foefole-merkblatt-19\\_05\\_22.pdf](https://www.med.uni-muenchen.de/forschung/foerderprogramme/foefole/foefole-merkblatt-19_05_22.pdf)

### Ph.D. students:

You will find an information sheet on acceptance and procedures for the academic degree Ph.D. in Medical Research in the supplement (“The structured Ph.D. in Medical Research”).

## 2. Programme Modules

Constituting an associated research training group within the Munich Medical Research School (MMRS) at the Medical Faculty of the Ludwig-Maximilians-Universität München (LMU), the RTG “Targets in Toxicology” provides a **structured Ph.D. programme** with a **modular organization** which requires the acquisition of **180 ECTS points in a 3-year curriculum**. For information on integration of medical students for the academic degree Medical Doctor (Dr. med.), please refer to 2.10. *Specific guidelines for medical students*.

### 2.1. M1: Lung Basics and Principles of Toxicology

The introductory module M1 Lung Basics and Principles of Toxicology is the heart of the initial training phase and split into two blocks, beginning with the lecture series “**Fundamentals of Lung Biology and Physiology**” followed by a seminar on “**Methods in Translational Lung Research**”. The second part of Module 1 focusses on toxicology, including the core lecture series “**Basic Principles of Toxicology**” followed by the accompanying seminar on “**Methods in Toxicology**”. This seminar covers fundamental toxicological methods and technologies coming to bear within RTG related scientific projects. To control the success of the two basic educational units of Module 1, Ph.D. candidates have to pass two comprehensive written exams. Module 1 is rated as successfully completed, if students acquire a minimum score of 65 % in both examinations, certify at least 75 % attendance, and give an oral presentation in each of the two methods seminars.

Lectures within the teaching module “Fundamentals of Lung Biology and Physiology” are given by principal investigators (PIs) of RTG 2338, the Comprehensive Pneumology Center/Institute of Lung Biology and Disease (CPC/ILBD), Helmholtz Munich, and collaborating group leaders and scientists from other institutions. The following “Methods in Translational Lung Research” seminar is organized as a peer-teaching event, and RTG 2338 doctoral candidates themselves present fundamental biomedical methods and technologies in translational lung research, with a focus on those used within the consortium.

### 2.2. M2: Ph.D. research project and dissertation (140 + 10 ECTS)

Doctoral researchers work on their research projects under supervision of the respective RTG PI at the participating institutions (140 ECTS). At the end of the Ph.D. programme, graduates will defend their Ph.D. project and written thesis. The thesis defence (10 ECTS) comprises an oral presentation of the research project followed by an oral examination.



A thesis may be submitted in the form of a self-contained book or as a cumulative thesis. Regardless of submission form, one co-authorship on a peer-reviewed publication is prerequisite for thesis submission. The minimal requirements for a cumulative thesis are two peer-reviewed publications where the doctoral student is first author on at least one. In general, a cumulative thesis should be the clear objective of all doctoral students.

All documents needed when handing in a thesis within the MMRS are available under:

[https://www.en.mmrs.med.uni-muenchen.de/promotionsmoeglichkeiten\\_en/phd\\_en/einreichen1\\_en/index.html](https://www.en.mmrs.med.uni-muenchen.de/promotionsmoeglichkeiten_en/phd_en/einreichen1_en/index.html)

For a more detailed description of the procedure and the required documents, please also refer to the supplement (information sheet “The structured Ph.D. in Medical Research”). Notably, a prerequisite for the successful submission of a thesis is an assessment of the text by the plagiarism detection software „iThenticate“. This can be implemented either by the thesis supervisor before initiating the doctoral examination procedures or by MMRS staff after submission of the thesis. A short description of the process can be found here:

<https://www.en.mmrs.med.uni-muenchen.de/plagiarism-check/index.html>

### **2.3. M3: International Lecture Series “Toxicology of the Lung” (3 ECTS)**

In this module, monthly lectures are given by experienced scientists from national and international universities, research centers and biotechnology companies. The module covers latest trends in toxicology and lung research worldwide. Lecturers are basic scientists, responsible officers of regulatory institutions, clinical researchers, and representatives of the pharmaceutical industry. Depending on the speakers’ schedules, lunch with the speaker is organized on the day following the lecture, thereby allowing doctoral scientists to get to know the speakers on a personal level, interrogate him/her on topics like personal career planning or specific scientific aspects.

## **2.4. M4: Status quo Seminars, Journal Clubs (3 ECTS)**

### *2.4.1. Status quo Seminars (3 ECTS)*

Here, the doctoral researchers present their own research projects by posters and oral presentations. Scientific discussions are a central component of this seminar.

### *2.4.2. Journal Clubs (3 ECTS)*

In these seminars, doctoral candidates present and dissect research articles within the fields of toxicology and/or lung disease from renowned scientific journals. This approach intends to familiarize students with retrieval, critical assessment, and intelligible presentation of the scientific literature. Attendance of at least 75% (attendance lists will be circulated) and a score of  $\geq 65\%$  in the second exam is required for successful completion of M4.

## **2.5. M5: Educational Courses of the German Society of Toxicology (GT) (2 x 3 = 6 ECTS)**

Participation in two 5-day advanced training courses offered by the German Society of Toxicology (GT) is compulsory for all doctoral candidates. Candidates are free to choose more courses, if compatible with the progress of their Ph.D. project.

These courses are organized by PD Dr. Hans Zischka and Prof. Dr. Martin Göttlicher, Helmholtz Zentrum München, Munich. More information including about how to register can be found here:

<https://www.helmholtz-muenchen.de/toxkurse/fachtoxikologe-in-gt/uebersicht/index.html>

Notably, membership in the RTG (3 years) will be recognized as a qualification period to obtain the title “Specialized Toxicologist DGPT” (“Fachtoxikologe/in”) after 5 years. The latter formal certificate justifies registration as “EUROTOX Registered Toxicologist” on the European level. A prerequisite for the certificate is the successful participation in such 5-day advanced training courses offered by the German Society of Toxicology, in total 13. Module M5 therefore provides a first step towards this career option.

## 2.6. M6: Transferable Skills Training and Career Development Program (3 ECTS)

Complementary courses are offered by LMU central services, the MMRS, or, for students enrolled at Helmholtz Zentrum München, HELENA. They cover topics such as scientific writing, communication and presentation skills, basics in project management, intellectual property rights, statistics etc. All doctoral researchers are obliged to attend the equivalent of 5 two-day courses during their curriculum (2.5 ECTS).

A practical course on aspects of job applications inside and outside of academia is offered to third-year doctoral researchers. Here, the objective is to present alternative career options and confront doctoral researchers with different interview styles and cultural differences of applications. Doctoral candidates practice interviews and receive feedback about their individual performance (0.5 ECTS).

Furthermore, our programme takes advantage of the fact that the Munich area is characterized by a blossoming biotech scenery, epitomized by the “Munich Biotech Cluster m<sup>4</sup>” located at the high-tech campus Martinsried. Besides big pharma, the biotech sector offers job opportunities in different areas like research, development, and project management, but also in marketing, sales, investor relationships, public relations, finance and administration. Doctoral students are offered participation in biotechnology lecture programmes organized by the BioM biotech industry networking agency (<http://www.bio-m.org/index.html>) and the Industrielle Biotechnologie Bayern Netzwerk GmbH (IBB Network) (<http://www.ibbnetzwerk-gmbh.com/en/ibb-netzwerk/>).

Notably, as mentioned before under 2.3. *M3: International Lecture Series “Toxicology of the Lung”* (3 ECTS), also representatives of biotech and big pharmaceutical companies are invited in the 2nd and 3rd year of the curriculum as key speakers to present their views on prospective career options and the job market in general and to engage in direct interactions with graduate scientists allowing for personal career counselling.

## 2.7. M7: Translational Skills (3 ECTS)

In order to provide the doctoral candidates with the best possible support in this final phase, workshops on the subject of paper writing and proposal writing will be offered. In addition, courses on funding opportunities and core entrepreneurial skills could be attended via the GraduateCenter<sup>LMU</sup> or HELENA.

Doctoral candidates participate in **clinical visits** offered by three different sites within the RTG. First, the department of Clinical Toxicology of the Klinikum rechts der Isar (Technical University of Munich,

TUM) will offer clinical visits of hospitalized patients suffering from intoxications and present the poison information center of the department. Second, the Department of Internal Medicine V – Pneumology at the LMU, and Asklepios Fachkliniken München-Gauting will offer visits of hospitalized patients diagnosed with common chronic lung diseases. Finally, clinical toxicology case discussion rounds are offered by the Bundeswehr Institute of Pharmacology and Toxicology.

The RTG organizes **industrial visits** to give the doctoral candidates the opportunity to get to know scientific activities of industrial players and broaden their horizon for future career perspectives.

## 2.8. M8: Control of Success (9 ECTS)

**Annual GRK 2338 Retreats** are a central element of the GRK 2338. Besides oral and poster presentations given by the doctoral researchers about the progress of their research project, keynote speakers are invited to give overview lectures on related topics. The retreats are further used to discuss the progress of individual projects in thesis committee meetings. The annual retreats are organized by the young scientists in close cooperation with the coordinator. Doctoral researchers are encouraged to come up with suggestions for international guests and are involved in the formal invitation of the speakers. Furthermore, doctoral candidates serve as session chairs, thus getting familiar with introducing speakers and leading scientific discussions at a very early career stage. At the retreat, candidates also have the possibility to practice the presentation of their own results as a talk and a poster and receive constructive criticism by their classmates, faculty and invited speakers. They are encouraged to play an active role in the discussions and interact with their mentors. Further the medical doctoral candidates present their results during a poster presentation. All GRK 2338 members have the opportunity to win the best poster or best presentation award.

Finally, doctoral candidates are expected to present and discuss their results at **one national and one international scientific conference** per three years.

Lectures and workshops on **Good Scientific Practice (GSP)** are another crucial component of control of success. From the very start of the programme, a mandatory GSP course is offered by the MMRS, which includes various topics relating to principles and safeguarding of GSP as well as procedural rules for dealing with scientific misconduct, plagiarism, and authorships. Data management and advanced statistics are also part of this lecture series. This course not only raises awareness for the importance of professional values and ethical norms like honesty, accuracy, and objectivity, but also imparts the necessary basic knowledge and required competencies to pursue scientific integrity.

## 2.9. European Credit Transfer and Accumulation System (ECTS) - Reporting

For all courses, MMRS doctoral candidates will receive ECTS according to LMU regulations (30 hours workload is accredited with 1 ECTS). All courses offered by the RTG, if completed with satisfactory attendance and performance, are automatically converted into ECTS by the RTG Coordination Office. For attended external workshops/seminars/conferences etc., doctoral candidates are required to forward a scan of the participation certificate to the RTG Coordination Office at the end of each semester. Your ECTS status is communicated regularly to the MMRS Coordination Office (Dr. Antje Hentrich, [mmrs@med.uni-muenchen.de](mailto:mmrs@med.uni-muenchen.de)).

## 2.10. Specific guidelines for medical students (*Dr. med.*)

For a **Medical Doctor (Dr. med)**, medical students are obliged to work on their thesis project for a minimum of 18 months, at least 8 of which must be spent full-time in the laboratory. During this time, medical students must attend a course on good scientific practice and attend at least one annual Research Retreat with all formal opportunities and obligations of the Ph.D. candidates (*cf. Fehler! Verweisquelle konnte nicht gefunden werden.. Fehler! Verweisquelle konnte nicht gefunden werden.*).

All medical students of the RTG are affiliate members of the FoeFoLe (*Förderprogramm für Forschung und Lehre*) programme of the medical faculty of the LMU Munich. Therefore, they have the possibility to choose lectures and courses from both programmes. As to the RTG qualification program, medical students should participate regularly in the M3 Lecture Series “Toxicology of the Lung” and in the M4 Transferable Skills Training. The FoeFoLe programme comprises a weekly lecture series where selected project leaders from the medical faculty present their research work and a bi-weekly method colloquium where the doctoral candidates themselves present and discuss the methods applied in their projects.

In total, an attendance corresponding to an equivalent of 75% attendance in the FoeFoLe programme activities ( $\approx 45$  h in total for 18 months) is required for successful completion of the programme. For confirmation of individual attendance, attendance lists will be circulated.

## 3. Regulations for the working area

### 3.1. General regulations

The Ordinance on Hazardous Substances (*Gefahrstoffverordnung, GefStoffV*), the Radiation Protection Ordinance (*Strahlenschutzverordnung, StrlSchV*), the genetic technology safety regulations (*Gentechnik-Sicherheitsverordnung, GenTSV*), the Ordinance on Biological Working Agents (*BioStoffverordnung, BioStoffV*) and regulations of the Maternity Protection Act (*Mutterschutzgesetz, MuSchG*) apply in their currently valid version.

All further regulations of the respective host institutions and the relevant working areas apply.

### 3.2. Tutor

For each doctoral candidate, a tutor (ideally a senior PhD student) will be nominated by the supervisor who will offer guidance for getting started in the host institution. This includes, but is not restricted to, an introduction into the desk and working area, organization of safety briefings, presentation of the doctoral candidate to institute staff, and help in administrative issues like setting up an institutional email account and getting access to the research facilities.

## 4. Supervision

### 4.1. Supervision agreement

Before the beginning of the doctoral thesis, a supervision agreement determines the subject area of the doctoral thesis and obligations of the supervisor and the doctoral candidate. By signing this form, the supervisor guarantees to provide the workplace including the necessary equipment and materials (in consultation with the host institute's management) and declares his/her commitment to support the doctoral candidate throughout the whole period of the thesis project. In turn, the doctoral candidate declares his commitment to the doctoral programme as a full-time programme and undertakes to report about times of absence, to complete the thesis in written form within the settled time frame, and to comply with all regulations of the host institute (*cf.* also 3.1. General regulations). Finally, this form also states regulations about termination of supervision and exclusion from the programme.

The agreement has to be signed by the supervisor and the doctoral candidate, ideally also by the members of the thesis advisory committee (*cf.* 4.2. Thesis Advisory Committee), even if this is not strictly necessary for enrolment. The supervision agreement has to be submitted to the graduation office of the medical faculty, the coordination office of the RTG "Targets in Toxicology", as well as to the directorate of the respective host institution.

### 4.2. Thesis Advisory Committee (TAC)

The RTG PI who supervises the doctoral candidate establishes a thesis advisory committee (TAC) within the first 3 months of the project. The TAC must consist of three members:

- ✓ the direct supervisor of the RTG
- ✓ an advisor from the Medical Faculty of the LMU
- ✓ an external expert (*i.e.* not part of the same institute)

In compliance with the regulations of the MMRS at least two of the TAC members must be from the Medical Faculty of the LMU. In the course of the doctoral project, the TACs meet regularly (see below for recommended timelines) to evaluate the doctoral candidate's progress and give advice for successful continuation of the project. These TAC meetings are coordinated by the doctoral candidate, in close consultation with the direct supervisor, including invitation of TAC members, scheduling, and reservation of a suitable meeting room.

### 4.3. Target agreement

The target agreement establishes the aims and details of the doctoral project and has to be signed by the TAC and the doctoral candidate. The target agreement consists of a short project description (research question, current state-of-the-art, methods, work plan), the aim of the thesis, milestones and potential additional qualifications and requirements to be fulfilled by the doctoral student. Of note, it is highly recommended to state the requirements of the RTG programme (75 % attendance, score of  $\geq 65$  % in each of the exams) in the target agreement.

Of course, it is implicitly understood that any research work is subject to unforeseen events and changes. Therefore, the target agreement can be amended by mutual agreement. Notably, it is the purpose of the regular TAC meetings to review the doctoral candidate's progress in comparison to the initially stipulated target agreement and record amendments if necessary.

The target agreement has to be submitted to the graduation office of the medical faculty and the coordination office of the RTG "Targets in Toxicology". For the structured Ph.D. programme, submission of the target agreement has to occur **no later than by the end of the second semester**, otherwise the Ph.D. candidate will be exmatriculated from the programme. For a medical thesis, the target agreement should be submitted within the first two months.

### 4.4. Thesis Advisory Committee (TAC) meetings and target amendments

The aim of the TAC meetings is to review the doctoral candidate's progress in comparison to the initially stipulated target agreement (cf. 4.3.), including the progress within the qualification programme, to discuss future steps within the doctoral project, and to encourage the student's scientific activities and initiatives. After each TAC meeting, a progress report must be submitted to the graduation office of the medical faculty and the coordination office of the RTG "Targets in Toxicology", clearly stating whether the student's progress is adequate and whether amendments have to be made to the original target agreement.

Should the outcome of these meetings be in accordance with the target agreement, the research project can carry on as planned. If there are differences to the original target agreement, a target amendment needs to be recorded. If the TAC determines that certain elements have not been fulfilled by the candidate, it can decide that these need to be repeated. If the elements are not fulfilled within a retry, the TAC is safe to assume that the candidate will not be able to fulfil the other requirements from the target agreement for completion of the dissertation and the oral defence. In



this case, the TAC is terminated, the Ph.D. project is ended, and the student is exmatriculated from the programme.

For a Ph.D. in Medical research, two annual TAC meetings must be performed. The first and second TAC meeting should take place during the 3rd and 5th semester at the very latest.

For a medical thesis, at least two TAC meetings are obligatory. These should take place at least annually. It is recommended to perform the first TAC meeting during the first three months of the doctoral project and the second one 4 - 6 months after that.

## 5. Contact persons / Links

### 5.1. RTG “Targets in Toxicology”

#### **Professor Dr. Thomas Gudermann, Speaker**

Ludwig-Maximilians-Universität München  
Walther-Straub-Institut für Pharmakologie und Toxikologie  
Goethestraße 33  
80336 München

Tel: +49 (0)89 2180 75702

Fax: +49 (0)89 2180 75719

E-Mail: [thomas.gudermann@lrz.uni-muenchen.de](mailto:thomas.gudermann@lrz.uni-muenchen.de)

#### **Dr. Claudia Staab-Weijnitz, Vice-Speaker**

Comprehensive Pneumology Center (CPC)  
Ludwig-Maximilians-University, Asklepios Fachkliniken München-Gauting, and Helmholtz Zentrum  
München  
Max-Lebsche-Platz 31  
81377 München

Tel: +49 (0)89 3187 4681

Fax: +49 (0)89 3187 4661

E-Mail: [staab-weijnitz@helmholtz-muenchen.de](mailto:staab-weijnitz@helmholtz-muenchen.de)

#### **Stefanie Resenberger, Programme Coordinator**

Ludwig-Maximilians-Universität München  
Walther-Straub-Institut für Pharmakologie und Toxikologie  
Goethestraße 33  
80336 München

Tel: +49 (0)89 2180 75713

E-Mail: [S.Resenberger@lrz.uni-muenchen.de](mailto:S.Resenberger@lrz.uni-muenchen.de)

## 5.2. MMRS office (Ph.D.)

Dr. Antje Hentrich

Ludwig-Maximilians-Universität München  
Munich Medical Research School  
Dekanat der Medizinischen Fakultät  
Room 108, first floor  
Bavariaring 19  
80336 München

Tel: +49 (0)89 4400 58935  
Fax: +49 (0)89 4400 58902

[mmrs@med.uni-muenchen.de](mailto:mmrs@med.uni-muenchen.de)  
<http://www.en.mmrs.med.uni-muenchen.de>

## 5.3. Doctoral office (Dr. med.)

Mrs. Andrea Hinkelmann

Ludwig-Maximilians-Universität München  
Munich Medical Research School  
Dekanat der Medizinischen Fakultät  
Room 003, ground floor  
Bavariaring 19  
80336 München

Tel: +49 (0)89 4400 58904

[andrea.hinkelmann@med.uni-muenchen.de](mailto:andrea.hinkelmann@med.uni-muenchen.de)

### Office hours:

Tuesdays from 9 - 12

Wednesdays from 13 - 16

## 5.4. FoeFoLe Programme

Mrs. Petra Kleucker

Ludwig-Maximilians-Universität München

FoeFoLe Office

Dekanat der Medizinischen Fakultät

Bavariaring 19

80336 München

Room 201, 2nd floor

Tel.: +49 (0)89 4400 8921

[petra.kleucker@med.uni-muenchen.de](mailto:petra.kleucker@med.uni-muenchen.de)

## 5.5. Graduate Center<sup>LMU</sup>

Dr. Kerstin Bleuel (Special Advisor Natural Sciences and Medical Research)

Postal Address:

Ludwig-Maximilians-Universität München (LMU Munich)

GraduateCenterLMU

Geschwister-Scholl-Platz 1

80539 München

Office

Leopoldstraße 30

Room 513

80802 München

Tel: +49 (0)89 2180-9734

<http://www.en.graduatecenter.uni-muenchen.de>

## 5.6. Early Career Funding Opportunities

German Academic Exchange Service (Deutscher Akademischer Austauschdienst, DAAD)

<https://www.daad.de/en/>

Graduate Center<sup>LMU</sup>

[http://www.en.graduatecenter.uni-muenchen.de/funding\\_young\\_researchers/index.html](http://www.en.graduatecenter.uni-muenchen.de/funding_young_researchers/index.html)

Förderprogramm für Forschung und Lehre

<http://www.med.uni-muenchen.de/promotion/foerderung/foefole/index.html>

European Respiratory Society (ERS)

<https://www.ersnet.org/professional-development/fellowships>

Volkswagenstiftung

<https://www.volkswagenstiftung.de/foerderung/>

## 5.7. Miscellaneous links and information

Good Scientific Practice DFG:

[http://www.dfg.de/foerderung/grundlagen\\_rahmenbedingungen/gwp/](http://www.dfg.de/foerderung/grundlagen_rahmenbedingungen/gwp/)

Homepage of the German Society of Toxicology (*Gesellschaft für Toxikologie, GT*)

<http://www.toxikologie.de/>

Homepage of the German Society of Experimental and Clinical Pharmacology and Toxicology (*Deutsche Gesellschaft für experimentelle und klinische Pharmakologie und Toxikologie e.V., DGPT*): <http://www.dgpt-online.de/>

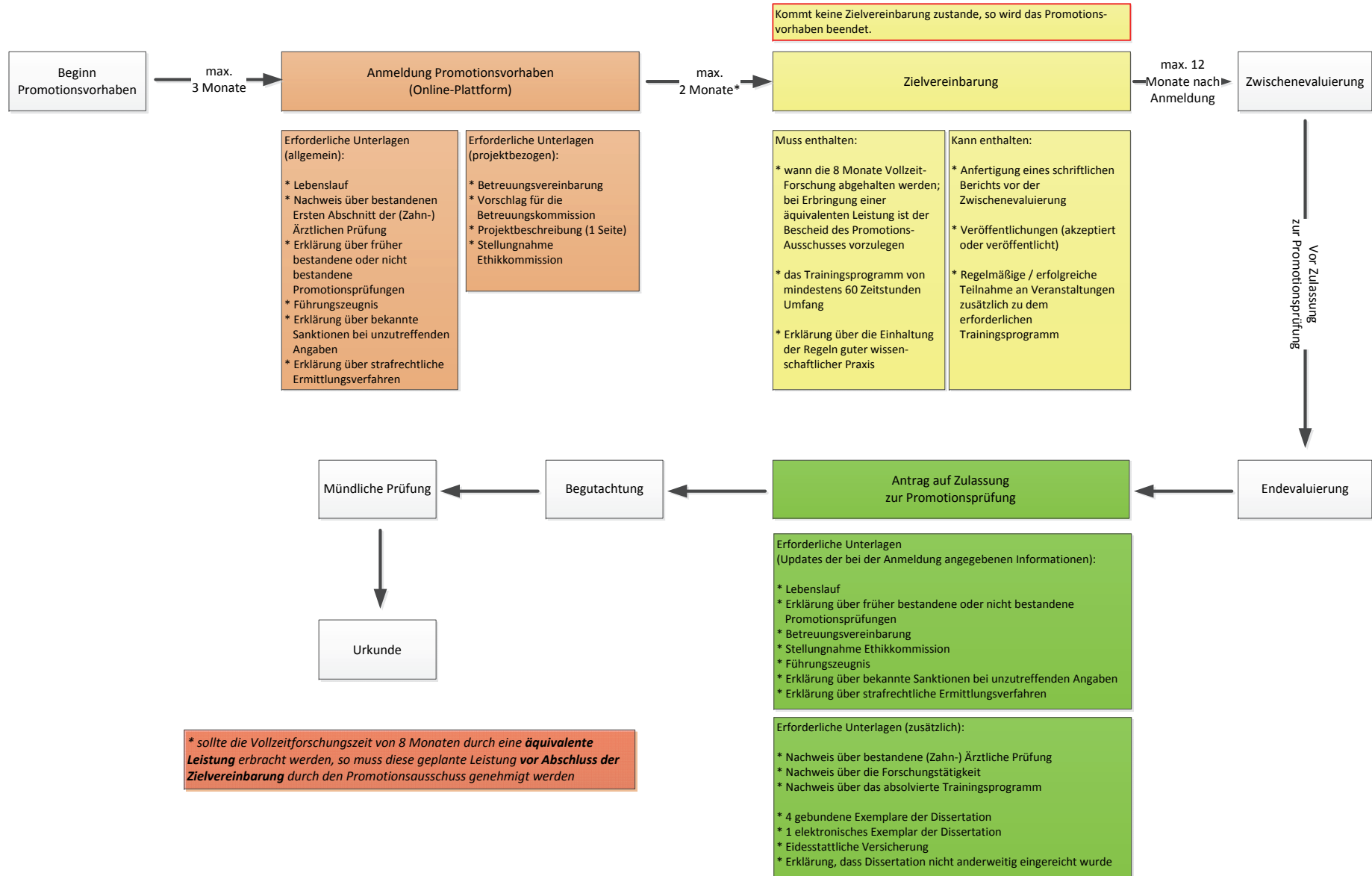
Federation of European Toxicologists & European Societies of Toxicology

<http://www.eurotox.com/>

## 6. Anhang

1. Information sheet - Dr med (dent)
2. Information sheet - Structured Ph.D.
3. Template Supervision Agreement
4. Template Target Agreement
5. Template TAC Meeting Protocol
6. Guidelines for a cumulative dissertation

# Ablauf der strukturierten Promotion zum Dr. med. bzw. Dr. med. dent.



# Vorstellung des Ph.D. Medical Research

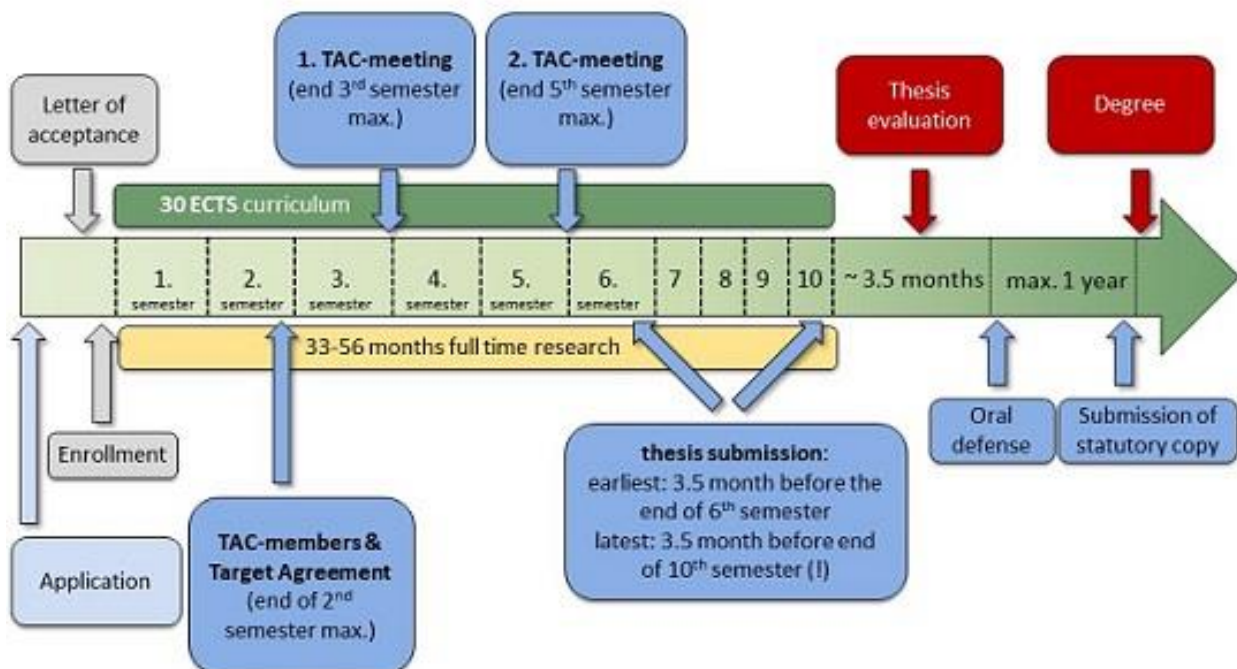
## Umfang

Im Rahmen des dreijährigen strukturierten Promotionsprogramms sind insgesamt 180 ECTS zu erwerben:

- 30 ECTS im Rahmen des curricularen Anteils:
  - 17 ECTS für Methoden
  - 8 ECTS für Konferenzen, Retreats, o.ä.
  - 5 ECTS für Schlüsselqualifikationen
- 140 ECTS im Rahmen des Promotionsprojekts
- 10 ECTS im Rahmen der Disputation

## PhD medical research – the Timeline

min. 6 semester full time research







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MAXIMILIANS-  
UNIVERSITÄT  
MÜNCHEN

Doctoral Office  
Medical Faculty



## Doctoral Supervision Agreement

between

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Habilitated supervisor (1<sup>st</sup> Member of the Thesis Advisory Committee)

---

Institute or Clinic

and

---

Name

---

Address

---

E-Mail Address

### Suggestion for the further members of the Thesis Advisory Committee (TAC)

2<sup>nd</sup> Member of the Thesis Advisory Committee:

---

Titel, Name

---

Institute or Clinic

3<sup>rd</sup> Member of the Thesis Advisory Committee:

---

Titel, Name

---

Institute or Clinic

For the purpose of achieving a

- doctoral degree in human medicine (Dr. med.)
- doctoral degree in dental medicine (Dr. med. dent.)
- doctoral degree in human biology (Dr. rer. biol. hum.)

the **topic of the dissertation** is defined as follows:

(Topic of the dissertation)

#### **Consultation with the Ethics Committee:**

In certain circumstances, an ethical vote is needed for the carrying out of a dissertation – this should be applied for before commencement of the research work. The necessity of an ethical vote is to be discussed with the supervisor and he / she should then apply for one. If it is unclear whether an ethical vote is needed, please contact the Ethics Committee and clear this beforehand.

**Please note:** the Ethics Committee does **not** issue ethical votes retrospectively, so that the dissertation or publications will potentially not be accepted.

#### **Analysis of data relating to the doctoral student for scientific reasons**

- I agree to the analysis of my data (grade, topic of the dissertation, institution at which the dissertation was carried out, etc.) for scientific reasons.
- I **do not** agree to the analysis of my data (grade, topic of the dissertation, institution at which the dissertation was carried out, etc.) for scientific reasons.

**Declaration by the Candidate:**

1. I hereby undertake to provide my academic supervisor for this doctoral project with information on my research at any time and to allow him/her to inspect my documentation / copy of the dissertation text. I am aware that all results obtained during my research, including details of the project protocol, are at the disposal of the supervising institution. Processing these results outside the supervising institution shall require the agreement of the head of the working group in question.
2. I undertake to complete the dissertation assigned to me in written form, after completing all relevant experiments, within a period of two years (this period may be extended by mutual agreement) and, upon agreement of the supervisor, to submit it to the Dean's Office of the Medical Faculty.
3. I am familiar with the data protection regulation governing treatment of patient data and undertake to observe them.
4. I undertake to observe the safety regulations in practice at my supervising institution (clinic, institute or similar) for e.g. hazardous substances, radio isotopes, radiation sources and for treatment of infectious materials.
5. I have been informed of the [rules of good scientific practice](#).

**Declaration by the supervisor:**

1. I will assist the doctoral candidate by providing advice and support.
2. I will expedite progress of the candidate's project.
3. I will provide the candidate with a workplace including the necessary equipment and materials in consultation with the institution or clinic management.
4. I will evaluate the candidate's dissertation within a maximum of six months after submission and return it with any recommendations for correction deemed necessary.

I will assist the PhD candidate by providing advice and support

**Supplementary provision for the Doctoral Supervision Agreement:**

1. The Doctoral Supervision Agreement may be terminated at any time by mutual agreement.
2. In the event of differences of opinion, severe misbehaviour, or problems with the progress of the PhD project or the PhD thesis, the Doctoral Committee of the Medical Faculty of LMU Munich may serve as an arbitrator.

Munich, \_\_\_\_\_

\_\_\_\_\_  
Doctoral student

\_\_\_\_\_  
Supervisor (1<sup>st</sup> member of the TAC)

\_\_\_\_\_  
2<sup>nd</sup> member of the TAC (if known)

\_\_\_\_\_  
3<sup>rd</sup> member of the TAC (if known)



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Faculty of Medicine



## Target Agreement

between

---

Name and institution of the supervisor (1<sup>st</sup> TAC member)

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Name and institution of the 2<sup>nd</sup> TAC member

---

Name and institution of the 3<sup>rd</sup> TAC member

and

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Name of the doctoral candidate

**The topic of the doctoral research project is:**

In accordance with § 9 of the Examination Regulations, a target agreement must be signed between the Thesis Advisory Committee and the doctoral candidate. The target agreement is a mandatory part of the structured doctoral degree and must be signed the very latest **two months after the successful registration of the doctoral research project**. The agreement is based on the abstract submitted for registration of the project and contains the activities which are to be completed during the doctoral process (project goal, milestones, additional required qualifications), as well as the required training program (at least 60 hours, of which at least 25 hours are to be completed in interdisciplinary courses and at least 35 hours are to be completed in research project-related courses).

As research projects are naturally subject to change over the course of time, potentially occurring changes can be documented in a target amendment.

The target agreement – as well as potential target amendments – must be signed by all members of the Thesis Advisory Committee, as well as by the doctoral candidate.

The required training program and the full-time research periods are documented in the log book.

**Timeframe of the planned 8 months of full-time research (Dr. med. / Dr. med. dent.) or the 2-year minimum research period (Dr. rer. biol. hum.):**

Expected begin (dd.mm.yyyy): \_\_\_\_\_

Estimated end (dd.mm.yyyy): \_\_\_\_\_

**Short description of the doctoral research project:**

*Please use an additional page if required.*

**Goal of the doctoral research project:** What is the goal of the project (hypothesis), what results are you expecting, where do you plan on publishing results?

*Please use an additional page if required.*

**Milestones:**

*Please use an additional page if required.*

**Additional qualifications (outside of the required 60 hour training program) that the doctoral candidate requires in order to successfully complete the doctoral degree:**

*Please use an additional page if required.*

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Place	Date	Signature supervisor
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Place	Date	Signature 2 <sup>nd</sup> TAC member
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Place	Date	Signature 3 <sup>rd</sup> TAC member
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Place	Date	Signature doctoral candidate
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Faculty of Medicine



## Ph.D. Medical Research Thesis Advisory Committee Meeting – Protocol

Date: \_\_\_\_\_

**Ph.D. Student:** \_\_\_\_\_

**Core area:** \_\_\_\_\_

**Institute / Clinic:** \_\_\_\_\_

**Starting Date / Semester:** \_\_\_\_\_

**Matriculation Number:** \_\_\_\_\_

**Name and Title of Supervisor:** \_\_\_\_\_

**Name and Title of 2<sup>nd</sup> TAC Member:** \_\_\_\_\_

**Name and Title of 3<sup>rd</sup> TAC Member:** \_\_\_\_\_

**Comments and recommendations of the TAC:**

*Please state clearly, how the candidate is progressing with his/her Ph.D. (research project, curricular activities, timeline, milestones) and if there are any amendments to be made to the original target agreement.*

*Please use extra sheet of paper if necessary.*



If the candidate is already in the final year of the Ph.D., please state whether the project will be finished on time (by the end of the 3<sup>rd</sup> year) or whether an extension is required. In the case of an extension, please provide a detailed work and time plan.

*Please use extra sheet of paper if necessary.*

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Place	Date	Supervisor's signature
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Place	Date	Second TAC member's signature
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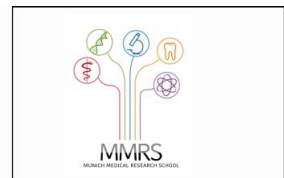
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Place	Date	Third TAC member's signature
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Place	Date	Ph.D. candidate's signature
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## GUIDELINES FOR THE CUMULATIVE DISSERTATION

(Dr. med., Dr. med. dent., Dr. rer. biol. hum., Dr. rer. nat. and Ph.D. Medical Research)

The information in these guidelines can be found in the corresponding Examination Regulations or was decided upon by the Doctoral Committees.

### A. Requisites for a cumulative dissertation

1. You do not need to apply for submitting a cumulative dissertation. However, only original work published in the top 80% of the subject-related journals (<http://admin-apps.webofknowledge.com/JCR/JCR>) will be accepted for cumulative dissertations.
2. A **minimum** of 2 articles must be accepted or published in peer-reviewed, international journals. At least one of these articles must be published as first author.

A **shared first-author** is possible and will be accepted as a regular first-author publication. Please note that as with co-authors, your own contribution must be shown in great detail. Further, you must submit an explanation as to how a shared first-authorship came to be.

For dissertations in human medicine and dentistry that were registered after October 1, 2018, a **publication-based dissertation** can be submitted even if only a very high-quality publication is available. The prerequisite is that the doctoral candidate is the sole first author of the publication and that it has been published in a journal which, based on its impact factor, is among the best 30% in the respective field.

3. The publications must be **original work**.
4. For all dissertations in human medicine, dentistry and human biology that have been registered before October 1, 2018, publications used in the cumulative dissertation are not allowed to be part of another cumulative (current or completed) dissertation, either of your own or one of the co-authors.
5. The following publication forms are not allowed to or can only be used in certain cases for a cumulative dissertation:
  - a. **Short Report** – if it corresponds to a publication on original work in form and content, then it can be used. Subject to decision on a by-case basis by the Doctoral Committee.
  - b. **Letter** – if it is published in a journal with a double-digit impact factor and the data presented is equivalent to that of original work, then it can be used. Subject to decision on a by-case basis by the Doctoral Committee
  - c. **Methodological Publications**. Subject to decision on a by-case basis by the Doctoral Committee.
  - d. **Meta-Analysis** – you can submit a maximum of one meta-analysis for your cumulative dissertation. The second publication must be based on original work.
  - e. The following publication forms may not be used: **review-articles, case studies**
6. Unpublished manuscripts, review-articles and case studies; as well as short reports, letters and methodological publications, which have been declared insufficient after case-by-case evaluation by the Doctoral Committee, can be added in a cumulative dissertation but have to be clearly labeled as additional contributions. Such additional contributions cannot replace the two main articles required by section A2 under any circumstances. Additional contributions can only help to provide better scientific context and a more complete picture about the candidate's scientific work.

## B. Formal composition of a cumulative dissertation

1. The dissertation can be submitted either in German or English.  
**Please note: only dissertations written in English are accepted for the PhD!**
2. Cover page (title, name, place of birth, year)
3. Affidavit
4. Table of contents
5. Abbreviations
6. Publication list
7. Confirmation of co-authors  
The contribution of all co-authors must be confirmed and submitted separately. This applies also to additional contributions as outlined by section 6A.
8. Introduction  
The publications must be preceded by an introduction (5 – 10 pages, German or English), which describes the research project, as well as showing which higher problem connects the publications and which aspects are highlighted by the individual papers.  
**In case of co-authorship, your own contribution must be described in detail for every original work (section A2) and all additional contributions (section A6).**  
For **publication-based dissertations** (see A2), the introduction must be very detailed and integrate the work into the scientific context (about 10 pages).
9. Summary  
The summary must be submitted in both German **and** English.  
**Please note: for the PhD, points 8 and 9 are combined in an “introductory summary”, which is to be written in English.**  
For **publication-based dissertations** (see A2) a detailed summary in your own words must be written (usually 2 pages). This summary must clearly explain the doctoral student's own contribution (ideally in a separate chapter).
10. Publication I
11. Publication II <sup>(\*)</sup>
12. References
13. Acknowledgements
14. Curriculum vitae

<sup>(\*)</sup> You are, of course, allowed to submit more than 2 publications for a cumulative dissertation, as long as these fulfil the criteria mentioned under (A.).