

**Order
of the Faculty of Medicine
of the Johann Wolfgang Goethe University Frankfurt am Main
and
of the Faculty of Medicine
of the Justus Liebig University
Giessen for the doctoral program
"Ph.D. in Cardiopulmonary Science."**

**adopted by resolution of the Faculty Council of the Department of Medicine of the Johann Wolfgang Goethe University Frankfurt am Main on 29.07.2021,
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and approved by the decision of the presidium of the Justus Liebig University Giessen from 23.11.2021.**

Inde

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**First paragraph:
Access and admission requirements**

**§ 1
PhD degree**

(1) The doctoral program "PhD in Cardiopulmonary Science" is conducted at the Cardio-Pulmonary Institute (CPI) - defined by the cooperation agreement between the Department of Medicine of the Johann Wolfgang Goethe University Frankfurt am Main (GU), the Department of Medicine of the Justus Liebig University Giessen (JLU) and the Max Planck Society for the Advancement of Science e.V. (Max Planck Institute for Heart and Lung Research Bad Nauheim, hereinafter MPI-HL) - on behalf of the Departments of Medicine of the participating universities in accordance with these regulations. After completion of the PhD procedure according to these regulations, the departments of the participating universities award the academic degree of Doctor of Philosophy (PhD) to graduates of medicine or dentistry (with a successfully passed state examination and medical doctoral thesis - Dr. med. or Dr. med. dent.) as well as to graduates of biology, chemistry, psychology, veterinary medicine or a comparable natural science subject (with a diploma, a master's degree or a state examination).

(2) Upon proof of successful completion of the PhD procedure, the doctoral degree of "Dr. sc. hum. can be awarded instead of the PhD degree.

**§ 2
Requirements for admission to the PhD program**

(1) Only applicants who meet the following admission criteria can be admitted to the PhD procedure at the CPI:

a) Good or very good degrees from a German university or a comparable foreign university in a subject mentioned in § 1.

The PhD Committee (§ 4) may recognise a course of study successfully completed abroad with a Master's degree or a medical doctorate completed abroad as a prerequisite for obtaining the PhD as equivalent to the degrees named in § 1 paragraph 1. Recognition is based on the equivalence agreement approved by the German Rectors' Conference (Hochschulrektorenkonferenz).

b) Presentation of a research project whose scientific quality is convincing and can be implemented within 3 to 4 years.

(2) Shortlisted applicants will have a selection interview with the PhD Committee or a subject representative appointed by the Committee, in which they have to present their qualifications and motivation. Personal presence is not required for the selection interview; this may be replaced by using telecommunication techniques (e.g. video conference) as decided by the PhD Committee.

**§ 3
Admission to the PhD procedure**

(1) Admission to the PhD procedure requires proof of the prerequisites specified in § 2 paragraph 1.

(2) The application for admission to the PhD procedure must be submitted in writing to the chairperson of the PhD Committee. The application must be accompanied by:

- a) An informal letter of application in English, explaining your suitability, motivation, areas of scientific interest and your own ideas about your career,
- b) Curriculum vitae with photograph,
- c) Certificates of previous degrees in officially certified form (no originals, but officially certified copies and officially certified translations into English or German),
- d) Certificates of proficiency in the English language,
- e) a letter of recommendation from the first supervisor naming the topic of the research project, a promise of scientific supervision, confirmation of the necessary material requirements (e.g. laboratory/workplace, laboratory/work equipment) and a promise of funding for the research project,
- f) a brief description of the planned research project, outlining the most important aspects of the current state of research in at least 1000 and no more than 5000 words. In doing so, it should be made clear that this is a demanding research project that can be expected to make an important scientific contribution,
- g) a work plan for the research project after prior consultation with the first supervisor,
- h) a declaration to have received and to comply with the GU's or JLU's principles for ensuring good scientific practice as amended from time to time (**Annex 1**).

(3) The PhD Committee decides on the admission of applicants to the PhD procedure according to the admission criteria mentioned in § 2 paragraph 1, the result of the selection interview (§ 2 paragraph 2) and the application documents according to paragraph 2.

(4) The applicants will be informed in writing by the chairperson of the PhD Committee (§ 4) about the result of the selection procedure. In addition to a brief written statement of reasons, a rejection notice must be accompanied by instructions on how to appeal.

(5) The application for admission to the PhD procedure shall be rejected in particular if the PhD Committee has determined that

- a) the requirements according to § 2 and according to paragraph 2 are not fulfilled, or
- b) the applicant has unsuccessfully attempted to obtain a doctorate or PhD degree in the respective subject more than once, or
- c) the applicant already holds an academic degree equivalent to the one sought, or
- d) the applicant is guilty of deception or attempted deception in connection with the admission requirements.

(6) The admitted applicants must enrol at the GU or the JLU for the PhD procedure at the Faculty of Medicine.

**Second section:
Organization and responsibilities**

**§ 4
PhD Committee**

- (1) The PhD Committee is responsible for the proper conduct of the PhD procedure in accordance with these regulations.
- (2) The PhD Committee consists of:
 - a) six members from the group of professors who are members of the CPI Faculty, two of whom come from each of the participating institutions (GU, JLU and MPG),
 - b) three members from the group of academic staff who hold a doctorate, one each from the GU, the JLU and the MPI-HL, and
 - c) one member of the group of students admitted to the PhD procedure according to these regulations and enrolled at the GU or the JLU.
- (3) The members are elected by the departmental councils of the respective departments of medicine of the GU or the JLU on the proposal of the CPI Board, re-election is permitted. The members from the group of professors and the group of scientific employees are elected for at least two years, the student for at least one year. The members from the group of students shall alternately come from the GU, followed by the JLU and then the MPI-HL. For each member a deputy is to be elected.
- (4) The PhD Committee elects a professor from among its members as chairperson for a period of one year. The chairmanship is alternated, starting with the member from the GU, followed by the JLU and then the MPI-HL.
- (5) The chairperson decides on all matters that are not assigned to the PhD Committee or the Examination Board. In the event of a tie, his or her vote shall be decisive.
- (6) Unless otherwise prescribed by law, the PhD Committee shall adopt its resolutions by a majority of the votes of the Committee members present. Voting by circulation is permissible.
- (7) Reasons must be given for each negative decision by the PhD Committee and an appeal notice must be included.

**§ 5
Support**

- (1) The PhD Committee appoints a supervisory group for the admitted applicant, which usually consists of three members: The first supervisor (also known as the subject supervisor), the second supervisor, and one additional CPI faculty member from a site other than the one where the work is being conducted (third supervisor). The admitted applicant has the right to propose the second and third supervisor.
- (2) Members of the supervisory group, at least one of whom must possess the professorial qualifications in accordance with § 62 HHG, include

- a) Professors,
- b) non-scheduled professors,
- c) Private lecturers,
- d) Junior professors,
- e) habilitated academics who are active in teaching and research at the departments of the participating universities,
- f) post-doctoral researchers who have distinguished themselves through outstanding scientific achievements (e.g. Emmy Noether Fellows and other junior research group leaders whose achievements have been reviewed by a peer review process),
- g) Researchers who have held a doctorate for at least three years and have themselves obtained the doctoral position to be supervised in a peer review and competitive process.

If the first supervisor is a member of the groups listed in lit. f) or g), the second supervisor must be a member of one of the groups listed in lit. a) to e).

(3) A supervision agreement must be concluded between the initial supervisor and the admitted applicant in accordance with **Annex 2**, which regulates the details of the supervision relationship. The first supervisor is usually the person who conceived the project and bears the financial responsibility. She or he shall ensure that the workplace and work equipment are provided. He or she must ensure and be accountable to the PhD Committee that the admitted applicant is only assigned to tasks that serve his or her further scientific qualification.

(4) The support group provides the admitted applicant with technical support and advice on planning his or her further professional development. It invites the admitted applicant to a personal information interview at least once a year. It assesses the progress of the admitted applicant and informs the PhD Committee.

(5) The supervision of the admitted applicant ends with the taking of the oral PhD examination (§ 12), but usually no later than five years after admission to the PhD procedure. The PhD Committee decides on exceptions. Exceptions may be justified in particular by delays caused by pregnancies, child-rearing periods and prolonged illness.

(6) Admitted applicants and the members of the supervisory group may address complaints to the PhD Committee. After clarification of the facts, the PhD Committee must press for redress in justified cases. For serious reasons, it may, at the request of the doctoral candidate and at the request of the member of the supervisory group concerned, after hearing all parties involved, terminate the supervisory relationship in question and assign a new supervisor in his/her place. If this is the first supervisor, the PhD procedure must usually be terminated.

**Third section:
PhD procedure**

**§ 6
Content of the PhD procedure**

- (1) The standard duration of the PhD procedure is three years.
- (2) At the request of the admitted applicant, the PhD Committee may decide on the part-time procedure pursuant to paragraph 3 or the shortening of the procedure pursuant to paragraph 4; as a rule, the PhD procedure may not exceed five years.
- (3) For medical doctors, one year of the PhD procedure, usually the third, can be completed over two years. The share of clinical, practical activities (patient care) may only be a maximum of 50%.
- (4) MD graduate students entering the Ph.D. program who have no previous experimental laboratory experience will be required to participate in qualifying courses (catch-up courses) and workshops offered by the CPI to acquire the basic laboratory skills necessary to carry out the outlined research program.
- (5) At the request of the admitted applicant, the PhD procedure may be suspended for a limited period. The application must be justified. The PhD Committee decides on this.
- (6) The PhD process includes:

- a) An experimental scientific research paper.

Within the framework of the research work, a topic with defined content is to be dealt with using appropriate methods in such a way that - according to the assessment of the supervisory group - an increase in scientific knowledge is achieved with realistic prospects of success and the results achieved can be published in internationally renowned scientific journals with a peer review system. The research work can follow on from the medical doctorate or the final thesis (Master's degree; state examination). However, the transfer of data from these theses is excluded.

- b) At least 200 course hours in the form of project-related and interdisciplinary, research-oriented courses, which are to be documented in the course schedule (**Annex 3**). As a rule, the courses should take place within the framework of a structured doctoral programme (SFB, Cluster of Excellence, GRK, etc.). The courses are held by scientists according to § 5, paragraph 2, who are members of the medical faculty of the GU or the JLU or members of the MPI-HL, and are complemented by guest scientists. They may be held in English.

**§ 7
Course schedule**

- (1) The admitted applicant who does not complete his or her training within a structured doctoral programme (SFB, Cluster of Excellence, GRK, etc.) will prepare an individual course plan for the 200 course hours (**Annex 3**). This individual course plan is presented in

The PhD thesis is prepared in consultation with the first supervisor and must be approved by the PhD Committee.

(2) Courses must be attended regularly and successfully by the admitted applicant. Regular attendance of a course is defined as attendance of at least 85% of the courses. Successful participation is defined as being able to implement the knowledge imparted in the course; the type of verification of this knowledge is determined by the respective course instructor. The certificate of regular and successful participation is issued according to the model in **Annex 4** and is issued by the respective course instructor.

Fourth Section: PhD Examination Procedures:

§ 8 Initiation of the examination procedure

(1) At the end of the PhD procedure, the PhD examination is conducted by the examination board.

(2) The admitted candidates who fulfil the examination requirements according to § 2 and § 3 can apply for the initiation of the examination procedure by submitting a dissertation to the chairperson of the PhD committee. Admission to the examination procedure requires admission according to § 3 and the successful completion of the PhD procedure according to § 6.

(3) The proposal must list the topic of the dissertation and the names of the members of the supervisory group.

(4) The application must be accompanied by the following documents:

- a) The curriculum vitae of the admitted applicant in English and his or her residential and home address,
- b) a written declaration in accordance with **Annex 5** that the admitted applicant has written the dissertation independently,
- c) where appropriate, a list of scientific papers already published,
- d) the dissertation in quadruplicate and in electronic form according to § 9 paragraph 4,
- e) a presentation of the PhD procedure based on the course schedule. **The** application for initiation of the examination procedure must be submitted within one year after completion of the PhD procedure. At the applicant's request, an extension of one year can be applied for up to two times, on which the PhD Committee decides. If the deadline in sentence 1 is exceeded without an extension having been requested, the PhD Committee decides on the unsuccessful termination of the procedure after hearing the applicant.

(5) Based on the submitted documents, the PhD Committee decides on the initiation of the examination procedure. The decision is to be communicated to the admitted applicant in writing.

(6) The initiation of the examination procedure may be refused if the admitted candidate has not submitted the complete dossier referred to in paragraph 4.

(7) The opening of the examination procedure shall be refused if

- a) the requirements according to § 2, § 3, § 6 or according to § 8 paragraph 4 are not fulfilled,
- b) the same dissertation has already been accepted in another subject or at another university or has been rejected as insufficient,
- c) the admitted applicant has been guilty of deception, in particular in connection with the admission requirements or also the dissertation.

(8) The application to initiate the examination procedure can no longer be withdrawn once one of the expert opinions pursuant to § 10 Paragraph 2 lit. a) has been received by the PhD Committee. If the admitted applicant withdraws from the examination thereafter, the PhD procedure is deemed to have ended unsuccessfully.

(9) The application for the initiation of the examination procedure must be submitted within one year after the end of the PhD procedure. At the applicant's request, an extension of one year can be applied for up to two times, on which the PhD Committee decides. If the deadline in sentence 1 is exceeded without an extension having been requested, the PhD Committee decides on the unsuccessful termination of the procedure after hearing the applicant.

(10) If the application to initiate the examination procedure is withdrawn and the PhD procedure is terminated, the application documents - with the exception of the original certificates - remain in the PhD files.

§ 9 Dissertation

(1) The dissertation is the independent, scientific work on the experimental research work carried out. It must contribute to a significant advance in knowledge in the chosen subject area. It has to meet the methodological principles of the subject, which are given by the requirements of international journals. In addition to an outline of the introduction, methodology, results, discussion and an abstract in German and English, the dissertation must contain documentation of the material evaluated and the specialist literature consulted in accordance with the scientific working principles. Studies on humans must comply with the Declaration of Helsinki of the World Medical Association.

(2) The dissertation can be submitted as a monograph or as a cumulative dissertation in publication-based form. The details of the monograph and publication-based dissertation, in particular with regard to structure, presentation and quality criteria, are regulated in **Annex 6**.

(3) The dissertation must be written in English.

(4) In addition to the paper form, the dissertation must be submitted in a suitable, electronic form for review purposes. The electronic version of the dissertation is checked for plagiarism.

(5) A declaration on honour according to **Annex 5** is to be attached to the dissertation and signed by hand.

§ 10

Examination of the dissertation

- (1)
 - a) The PhD Committee appoints two reviewers, one of whom should be the first supervisor. The persons entitled to supervise named in § 5 Paragraph 2 lit. a) to g) can be considered as reviewers. One of the reviewers must be a professor and a member of the Faculty of Medicine of the GU or the JLU. The other reviewer may be from another department, university, university of applied sciences or non-university research institution. The two reviewers may not belong to the same clinic or institute or department.
 - b) In justified cases, the PhD Committee may allow other reviewers or appoint up to two additional two reviewers. If the two reviewers each assess the dissertation with the grade "summa cum laude", a third review must be obtained. In this case, the additional reviewer may not be a member of the CPI Faculty.
 - c) The reviews are to be prepared independently within six weeks of receipt of the dissertation.
- (2)
 - a) Each reviewer shall prepare a written review [**Annex 8**] of the dissertation and propose to the PhD Committee the acceptance or rejection of the dissertation. The reviewers evaluate a dissertation according to the grades specified in § 13 Paragraph 2.
 - b) If one of the reviewers has identified minor deficiencies in the dissertation without arriving at a final rejection, the PhD Committee may, in agreement with the reviewers and the candidate, return the dissertation for one revision within four weeks. Minor deficiencies here are in particular those that affect linguistic comprehension.
 - c) If all reviewers propose rejection ("non rite"), the examination board declares the examination failed.
 - d) If the acceptance of the dissertation is not recommended by all reviewers, another reviewer is to be appointed. Afterwards, the examination committee decides on the acceptance or rejection of the dissertation.
 - e) If a dissertation is rejected according to lit. c) or d), this decision is to be communicated to the admitted applicant in writing by the chairperson of the PhD committee. If the dissertation has been rejected, it shall remain on file in the department along with all reviews and, if applicable, comments.

§ 11

Board of Examiners

- (1) The examination committee decides on the examination performance within the framework of the PhD procedure. The examination board and its chairperson are appointed by the PhD Committee. A professor who is not also a reviewer is to be appointed as chairperson of the examination committee. The chairperson must be a member of the PhD Committee and belong to one of the participating universities.
- (2) The examination board includes the chairperson and the reviewers as well as another professor. If a member of the examination committee is unable to attend, the chairperson of the PhD committee may replace him or her with another professor.
- (3) The dissertation and the expert opinions must be made available to the members of the examination committee.
- (4) The examination board deliberates and makes decisions in closed session. Resolutions are passed by a majority of the votes of the members present. Secret voting and abstentions are not permitted. In the event of a tie, the chairperson has the casting vote.

(5) The chairperson of the examination board sets the date of the oral examination in consultation with the members of the examination board.

§ 12

Oral examination

(1) If the dissertation has been accepted by the PhD Committee, the Chairperson of the Examination Committee invites the candidate to the oral examination.

(2) The public oral examination consists of:

- a) A presentation on the research work (up to 20 minutes),
- b) a discussion of the research paper (at least 20 minutes). The chairperson may allow questions from the university public,
- c) a technical discussion to examine the subject-specific and interdisciplinary knowledge acquired during the training (at least 20 minutes). The assessment of the specific scientific knowledge and skills - related to the research work - also takes place in this technical discussion.

It should last at least one hour in total.

(3) The oral examination is to be conducted in English.

(4) After the oral examination, the examination board decides on the evaluation of the oral examination and the overall evaluation in accordance with § 13 and subsequently informs the candidate of the result in a closed session.

(5) Minutes of the oral examination must be taken and signed. They must contain the names of the members of the examination committee, the duration of the examination, an overview of the contents of the oral examination and the grades.

(6) If the oral examination is deemed to have been failed, it can be repeated once within a period set by the examination committee; this period is within a minimum of three and a maximum of six months after the first attempt. If the oral examination is failed again, the PhD examination is finally deemed to have been failed; this must be determined by a decision of the examination committee and communicated to the admitted applicant by the chairperson of the PhD committee.

§ 13

Decision on the examination performance

(1) The examination committee decides on the examination performance. The grade for the dissertation is determined exclusively on the basis of the expert opinions. An overall grade is calculated for the examination performances. The grade for the dissertation is determined on the basis of the expert opinions as an arithmetic mean (partial grade 1). The grade for the oral examination is determined as the arithmetic mean of the individual grades of the

The final mark is determined by the members of the examination board (sub-mark 2). When calculating the overall mark, sub-mark 1 is weighted twice and sub-mark 2 is weighted once.

(2) The scores are:

summa cum laude	with honours (0)
magna cum laude	very good (1)
cum laude	good (2)
rite	sufficient (3)
non rite	not sufficient (4)

The numbers serve as a basis for calculation and do not appear in the PhD certificate. If there are fractions in the total number, the better grade is given for values up to and including 0.50, and the worse grade is given for values above this. An exception to this is the predicate "summa cum laude", which is only awarded if the overall grade is 0.0.

(3) The quality criteria for the grading referred to in paragraph 1 shall be laid down by the PhD Committee in **Annex 7**.

(4) The admitted applicant can only successfully complete the PhD procedure if the dissertation and the oral examination have each been assessed with at least the grade sufficient "rite".

§ 14 Fees

(1) The PhD examination fee is based on the fees customary at the location. Proof of payment must be provided with the submission of the dissertation (§ 9 paragraph 2).

(2) If the dissertation is rejected or the examination is not passed, the fee will not be refunded to the applicant. A deferral of the PhD examination fee is not possible.

(3) Candidates may apply for a reduction or waiver of fees in cases of hardship. The PhD Committee decides on this. Its decision is final.

Fifth Section: Award of the PhD degree

§ 15 Publication of the dissertation

(1) After passing the examination, the candidate is obliged to publish the dissertation in the final version approved by the examination committee on behalf of the departments of medicine of the GU and the JLU and to deliver the deposit copies to the university library of the university to which the chairperson of the examination committee belongs within one year after the disputation. The type and number of deposit copies to be delivered are determined by the principles for the publication of dissertations of the participating universities.

(2) The publication has to take place within one year. In exceptional cases, the chairperson of the PhD Committee may, upon timely and justified request, decide on the

The Board may, at the candidate's request, extend the publication period, as a rule by no more than one year.

(3) Should the publication of the dissertation have a negative impact on the publication of the data described therein in a scientific journal, the PhD Committee may decide on the award of the degree after the official publication of the dissertation abstract. In such a case, the entire dissertation must be submitted to the University Library but, at the candidate's request, must be given a specified embargo period.

(4) If the candidate culpably fails to meet a deadline set for him or her, the rights acquired through the PhD performance expire.

§ 16 PhD certificate

(1) After successful completion of the examination procedure and after the dissertation has been published according to the regulations of § 15, the departments of the GU and the JLU confer the academic degree of Doctor of Philosophy (PhD) on the admitted applicant or, if desired, the title "Dr. sc. hum" instead.

(2) The PhD certificate is issued in German and English under the date of the oral examination and handed over to the admitted applicant by the department. The PhD certificate is prepared in accordance with the model in **Annex 9** and contains the overall grade.

(3) The degree of Doctor of Philosophy (PhD) or the title "Dr. sc. hum." may only be used after the certificate has been issued.

§ 17 Denial and withdrawal of the PhD degree

(1) The PhD Committee shall refuse to award the PhD degree or shall terminate the PhD degree. to terminate proceedings if it becomes apparent before the conclusion of the proceedings that

- a) the candidate has deceived in the procedure, or
- b) the candidate in the PhD procedure has violated the principles of safeguarding good scientific practice as laid down in the DFG guidelines, or
- c) the candidate has not recorded, fully documented or retained his/her research results, or
- d) essential requirements for admission to the PhD procedure were not met.

(2) The PhD Committee must withdraw the title if

- a) the candidate has acquired the title by deception, or
- b) after it has been awarded, old or new facts become known which would have precluded its being awarded, or
- c) the candidate proves unworthy to hold the title.

(3) In all other respects, the withdrawal shall be governed by the statutory provisions. Prior to the decision of the PhD Committee on the denial or withdrawal of the PhD degree, the person concerned shall be given the opportunity to comment on the allegations.

Section Six: Final Provisions

§ 18 Contradiction

The applicant may appeal against incriminating decisions of the PhD Committee and the Examination Board in writing within one month of notification. The President of the University, to which the Chair of the Examination Board belongs, decides on the appeal lodged against decisions of the PhD Committee.

§ 19 Entry into force

The Regulations, including **Annexes 1-9**, shall enter into force on the day following their last publication in the official gazettes of the participating universities (Frankfurt: UniReport, Gießen: Mitteilungen der Universität Gießen).

ANNEXES

- Annex 1: Principles for ensuring good scientific practice
- Annex 2: Supervision agreement
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Annex 1: Principles for ensuring good scientific practice

I hereby declare to have received and to comply with the principles of the Johann Wolfgang Goethe University Frankfurt am Main or the Justus Liebig University Giessen for ensuring good scientific practice as amended from time to time.

Place, date

(Signature of the applicant)

Annex 2: Supervision agreement



Noted:

.....
(date, CPI representative)

Supervision agreement

between

Mrs/Mr Prof./Priv. Doz./Dr.

.....
(Last name, first name (first supervisor))

.....
(Institute/Clinic)

and

.....
(Surname, first name (candidate))

.....
(date of birth)

.....
(home address, phone)

.....
(study address, tel.)

.....
(email)

the following agreement is concluded with the aim of ensuring the best possible support and supervision for applicants admitted to the PhD procedure at the Cardio-Pulmonary Institute (CPI).

This agreement is based on the regulations of the Department of Medicine of the Johann Wolfgang Goethe University Frankfurt am Main and the Justus Liebig University Giessen for the doctoral program "Ph.D. in Cardiopulmonary Science" as amended.

Proof of admission to the PhD program at the Cardio-Pulmonary Institute (CPI) is attached as an appendix to this supervision agreement.

To obtain the PhD degree, Prof./Priv. Doz. Dr./Dr.
.....(= first supervisor)

Ms/Mr (= doctoral candidate)

a dissertation (research work within the framework of the PhD project) with the following topic

.....
.....
.....
.....
.....

left to me.

§ 1 Support

In addition to the first supervisor, the candidate is supervised by the following persons of the supervisory group:

The second supervisor of the dissertation will be Prof./Priv.-Doz./Dr.

.....

The third supervisor of the dissertation will be Prof./Priv.-Doz./Dr.

.....

§ 2 Subject matter and duration

For the research work, the exposé listed in the appendix applies, including the general work and time plan agreed upon with the candidate, which is to be concretized and, if necessary, corrected by annually agreed upon work and time plans (see § 3 b).

§ 3 Agreement between candidate and supervisor

- a) Candidate and supervisor commit themselves to a cooperative collaboration with the aim of a successful implementation of the project. The meetings, which take place at regular intervals, if possible every two months, but at least twice a year, serve to critically evaluate what has been achieved. Where there are questions and problems, it should be agreed how these can be solved. The meetings between candidate and supervisor are observed by both sides and adequately prepared in terms of content. Once a year all members of the supervision group take part in this meeting.
- b) Each year, the candidate and the first supervisor undertake to draw up a work plan and timetable for the following year based on the experience of the previous year.
- c) The candidate and the supervisory group undertake to take minutes of one of the meetings (see § 3 a) at least once a year; the meeting with the entire supervisory group must be recorded in each case. The minutes record the status of the research work, possible complications and the next steps to be taken. It is usually written by the candidate and countersigned by the members of the supervisory group. The form "Status of the research work" to be used for this purpose is available as a download on the homepage of the Dean's Office.
- d) The candidate's career prospects should be the subject of counselling interviews.
- e) Candidate and first supervisor agree to adhere to the principles of good scientific practice as defined in more detail for the Department of Medicine at the Johann Wolfgang Goethe University Frankfurt am Main (<http://www.uni-frankfurt.de/forschung/wiprax/>) or the Departments of Medicine at the Justus Liebig University Giessen (https://www.uni-giessen.de/mug/5/pdf/research/5_00_10_1_new_version).

§ 4 Tasks of the first supervisor

- a) The first supervisor undertakes to support the candidate in the design and implementation of the PhD project and in the efforts to complete the project within the agreed period of time. Furthermore, the first supervisor will assist in the scientific integration of the PhD project (e.g. through colloquia). The supervisor supports the candidate's introduction to the academic world, e.g. by providing opportunities for lectures, searching for teaching positions, etc.

- b) The first supervisor supports the candidate's funding efforts by passing on information, providing advice and writing any reports required for this purpose.
- c) The first supervisor agrees to provide advice on the preparation of the oral examination and, if applicable, the publication(s).
- d) The first supervisor agrees to participate in the preparation of a protocol of a meeting on the status of the research work (see § 3 c) at least once a year. A copy of the minutes will be sent to the CPI Academy Office without being requested.
- e) The first supervisor agrees to review the dissertation within 6 weeks.

§ 5 Tasks of the candidate

- a) The candidate undertakes to carry out the PhD project in accordance with § 2 of this agreement. She or he reports in regular meetings (see § 3 a) with the first supervisor on the development of the dissertation, possible problems of implementation and connection as well as significant deviations from the work/time schedule.
- b) The candidate undertakes to keep a log book of the experimental work, which contains all experimental set-ups and data. The same applies to the evaluation of clinical data (more detailed regulations may be found in a separate SOP (Standard Operating Procedure) of the supervising institution).
- c) In view of the fact that medical research takes place in the context of patient care and/or safety regulations must be observed, the candidate undertakes to allow the first supervisor, and if necessary also the laboratory director, to inspect the data compiled. The laboratory logs must also be available to the laboratory after the work has been completed. The log book must remain in the laboratory in accordance with employment regulations. The data obtained by inspection shall be treated confidentially by the persons inspecting them.
- d) The candidate assures that he or she has not taken and will not take any doctoral advice for the realisation of the PhD project.
- e) The candidate undertakes to complete the research work entrusted to him or her in written form (dissertation) after completion of the experimental part or data collection within an appropriate time frame to be agreed with the first supervisor and to submit it to the Cardio-Pulmonary Institute (CPI) after approval by the first supervisor.
- f) The candidate undertakes to inform both the first supervisor of the dissertation and the Dean's Office immediately of any change of address at which he or she can be reached during the current PhD procedure.

§ 6 Non-compliance

In case of non-compliance with the above-mentioned obligations, discussions between the parties (candidate and/or first supervisor) will be held immediately in order to restore the fulfilment of the agreement or, if necessary, to resolve it. In case of conflict, the parties should contact the Chairperson of the PhD Committee of the Cardio-Pulmonary Institute (CPI).

dates and signatures

.....

(date, candidate)

.....

(date, first supervisor)

I have taken note of the above care agreement; to the extent that the agreement involves the use of resources of the facility I manage, I agree.

.....

(date, director institute)*

*Signature only necessary if not also a supervisor

Annex 3: Course schedule

The PhD procedure includes interdisciplinary, research-oriented courses of at least 200 hours, which are determined by the supervisory group and approved by the PhD Committee, unless they are completed within a structured doctoral programme (SFB, Cluster of Excellence, GRK, etc.).

Type of event	Event title	Number of Lessons
	Total	

Annex 4: Sample certificate of regular attendance at courses

Cardio-Pulmonary Institute
(CPI) [name of the institute].

Certificate

about the regular and successful participation in courses according to § 7 of the regulations of the Department of Medicine of the Johann Wolfgang Goethe University Frankfurt am Main and the Justus Liebig University Giessen for the doctoral program "Ph.D. in Cardiopulmonary Science".

"[Event Name]"

The candidate

[first name surname], born [maiden
name] born on [date] in [place].

in the summer semester 20.../winter semester 20.../20.... within the framework of the PhD procedure according to the regulations of the Faculty of Medicine of the Johann Wolfgang Goethe University Frankfurt am Main and the Justus Liebig University Giessen for the doctoral programme "Ph.D. in Cardiopulmonary Science" *not /regularly and *not /successfully participated in the above.

Place, date

(Signature of the lecturer)

*Please delete where not applicable

Annex 5: Written declaration that the admitted applicant has written the dissertation independently

Written declaration

I hereby declare on my honour that the thesis submitted to the Cardio-Pulmonary Institute (CPI) for examination.

[Dissertation title.]

In the [clinic, institute, hospital, research facility].

under the supervision and guidance of [title, first name, surname] with the support of [title, first name, surname] independently and without unauthorised assistance or use of other than the stated aids. All text passages taken verbatim or in spirit from published or unpublished writings, and all information based on oral information, are identified as such. In the research conducted by me and mentioned in the dissertation, I have complied with the principles of the Johann Wolfgang Goethe University Frankfurt am Main or the Justus Liebig University Giessen for ensuring good scientific practice, as amended from time to time, as well as with ethical, data protection and animal welfare principles. I assure that third parties have neither directly nor indirectly received monetary benefits from me for work related to the content of the submitted dissertation, and that the submitted dissertation has not been submitted in the same or similar form to any other examination authority for the purpose of a doctorate or any other examination procedure, either in Germany or abroad. I have not yet submitted an application for admission to a doctorate or PhD procedure at any domestic or foreign university*.

All material taken from other sources and from other persons that was used in the dissertation or to which direct reference is made has been identified as such. In particular, all persons who were directly and indirectly involved in the creation of this dissertation have been named. I agree to the verification of my dissertation by a plagiarism detection software or an internet-based software program.

Present results of the dissertation have been (or will be) published in the following publication organ:

[List all authors in order, title, journal, volume, page, year of publication].

(Place, date)

(Signature)

(*) delete if not applicable

Written declaration

I hereby declare on my honor that I have written the dissertation submitted to the Cardio-Pulmonary Institute (CPI) for examination.

[title of dissertation]

At the [clinic, institute, hospital, research site].

under the supervision and guidance of [title, first name surname] with the assistance of [title, first name surname] independently and without unauthorized assistance or use of other than the indicated aids. All text passages taken verbatim or in spirit from published or unpublished writings and all information based on oral information are identified as such. In the research conducted by me and mentioned in the dissertation, I have complied with the principles of the Johann Wolfgang Goethe University Frankfurt am Main or the Justus Liebig University Giessen to ensure good scientific practice, as amended from time to time, as well as ethical, data protection and animal welfare principles. I assure that third parties have neither directly nor indirectly received pecuniary benefits from me for work related to the content of the submitted dissertation, and that the submitted dissertation has not been submitted in the same or similar form to any other examination authority for the purpose of a doctorate or any other examination procedure, either in Germany or abroad. I have not previously submitted an application to any domestic or foreign university for admission to a PhD or PhD procedure*.

All material taken from other sources and from other persons, which has been used in the dissertation or to which direct reference is made, has been identified as such. In particular, all persons who were directly and indirectly involved in the writing of this dissertation have been named. I agree to the verification of my dissertation by a plagiarism detection software or an internet-based software program.

Present dissertation results have been (or will be) published in the following publication organ:

[list all authors in order, title, journal, volume, page, year of publication].

(place, date) (signature)

*) delete in case of non-applicability

Annex 6: Structure, presentation and quality criteria for monograph/cumulative dissertation or principles for writing and publishing

1. Requirements for the preparation of the dissertation

- a) The dissertation should be typed and submitted in DIN A4 format. The lettering must be on one side with font size 12, line spacing 1.5 times, margins 3 cm (right and left) and 2.5 cm (top and bottom).
- b) The dissertation must contain an abstract in German and English which, in addition to the usual summary of the content, presents the aim of the dissertation and the significance of the results achieved in an understandable way. As a rule, the summary should not exceed two DIN A4 pages. Both summaries are part of the scientific work and are to be evaluated as well. Deviations from this rule must be approved in advance by the PhD Committee.
- c) The title page shall be prepared in accordance with Appendix 6b. Only the title shall be printed in bold. The use of the university seal or university logo is not permitted. The name of the institution in which the dissertation was written as well as the name of the director or head of this institution must be included. The title of the dissertation may not exceed four lines.
- d) On page 2, the spokesperson, the first supervisor and the elected representative of the PhD Committee with title, first name and surname as well as the date of the oral examination are to be listed according to Annex 6c, if known.
- e) A bibliography should be provided for the citations in the introduction and discussion.
- f) At the end of the dissertation, a curriculum vitae in table form as well as a written statement in accordance with Appendix 5 must be included.
- g) The dissertation must be submitted in quadruplicate and in DIN A4 format, without punched holes, in a clip folder or clip binder.

2. Cumulative dissertation in publication-based form

- a) The cumulative dissertation must comprise at least three manuscripts or publications that have been accepted for publication and reviewed in an anonymous peer review process. The admitted applicant must be the **sole** first author of at least one of these manuscripts/publications.

b) A maximum of one reviewer of the dissertation may also be a co-author of the publications.

c) a cumulative dissertation consists of the following parts:

- Title page,
- Page 2 in accordance with Annex 6c,
- Table of Contents,
- Summary in German and English, which, in addition to the usual summary, presents the aim of the dissertation and the significance of the results achieved in an understandable way. As a rule, the summary should not exceed two DIN A4 pages. Both summaries are part of the scientific work and will be evaluated. Deviations from this rule must be approved in advance by the PhD Committee,
- List of abbreviations, if applicable,
- Overall summary in English (usually 5 - 10 pages) consisting of introduction (related to the overall research question), presentation of the manuscript(s) or publication(s) and discussion of the results as a whole and their contribution/importance for answering the research question,
- Overview of manuscripts or publications accepted for publication,
- **the manuscript(s)/publication(s),**
- Presentation of own share of each manuscript/publication,
- Bibliography for the citations in the introduction and discussion,
- as an appendix, possibly additional original data or methods not documented in the manuscripts/publications,
- Curriculum vitae with date and signature and
- written declaration according to appendix 5 with date and signature.

3. Publication of the dissertation

The type and number of deposit copies to be submitted are based on the principles for the publication of dissertations of the participating universities.

Annex 6b -Title page

From the Faculty of Medicine, Goethe University Frankfurt am Main and
the Faculty of Medicine, Justus Liebig University Giessen,
the Cardio-Pulmonary Institute (CPI)

supervised at

[Center]

[Clinic or Institute]

Director [Title First name Last name]

Title [max. 4 lines]

Thesis

To obtain the degree of Doctor of Philosophy (PhD)

of the Cardio-Pulmonary Institute (CPI) at the Faculty of Medicine, Goethe University
Frankfurt am Main/the Faculty of Medicine, Justus Liebig University Giessen

submitted by

[First name Last name]

from [Birthplace]

[Place], [Year of submission]

Annex 6c - Structure Page 2

Speaker:	[Title First name Last name]
Supervisor:	[Title First name Last name]
Representative of the PhD-committee:	[Title First name Last name]
Date viva voce:	[DD.MM.YYYY]

Annex 7: Quality Criteria for Grading

The following grading scale is available to the Cardio-Pulmonary Institute (CPI) for grading the dissertation:

summa cum laude	with honours	(0)
magna cum laude	very good	(1)
cum laude	good	(2)
rite	sufficient	(3)
non rite	insufficient	(4)

The following criteria must always be taken into account by the reviewers when assessing a dissertation:

- The ability of the admitted applicant to carry out scientific work and to think critically, including the ability to independently develop solutions to the given problems from knowledge gained through literature study and methodological principles conveyed by the first supervisor.
- The suitability of the methods used to obtain and critically review data and information and to interpret them.
- The personal commitment and the activity with which the set task was mastered, the sensible work planning and the sensible structuring of the task complex as well as the timely completion of the dissertation.
- Editorial aspects of the dissertation: length and proportion of the dissertation, presentation of the basic principles, the subject of the investigation and the research methodology as well as the results obtained (including tables and figures), literature, style and quality of expression.

In addition to the general criteria, the following criteria are decisive for the grading:

rite (sufficient)

Grading "rite" will be given for work involving various established but difficult methods with independent performance of experiments that have led to new knowledge.

cum laude (good)

The mark "cum laude" is awarded for work involving various established but difficult methods with independent work planning and execution of the experiments and structuring of the task complex by the admitted candidate, which has led to important new findings.

magna cum laude (very good)

The grade "magna cum laude" is awarded for methodologically difficult dissertations that has led to new significant scientific findings, involving new methods or methods modified by the admitted applicant, with essentially independent planning and execution of the work. The grade "magna cum laude" can only be awarded if the admitted applicant has not taken longer than 5 years to complete the PhD procedure and at least one publication (as first author) has been demonstrably accepted after passing a peer review procedure in an internationally high-ranking journal in the field at the latest by the time of the oral examination. Deviations from this rule must be cogently justified in the reviews. The status of the submitted first author paper will be reviewed during the oral examination.

summa cum laude (with honours)

The grade "summa cum laude" is given to dissertations with new and outstanding scientific findings that go beyond those graded Magna cum laude in the way that these findings have been obtained on the basis of an independently developed experimental plan and with independently developed research methods and show a high degree of originality.

The grade "summa cum laude" requires the publication (or at least an original paper accepted for publication) of the results with the admitted applicant as first author after passing a peer review procedure in an internationally high-ranking journal in the field. The duration of the PhD procedure should not exceed 4 years. Deviations from this rule must be substantiated in the reviews. If the two reviewers each assess the dissertation with the grade of "summa cum laude", a third expert opinion has to be obtained according to § 10, paragraph 1 lit. b). In this case, the additional reviewer may not be a CPI Faculty member.

An expert opinion is to be prepared on the basis of these criteria. Annex 8 can serve as a template for this expert opinion.

Annex 8: Submission of an expert's opinion on the dissertation

[Topic]

submitted by

[first name last name candidate]

from [place of birth, country if applicable].

[Overview of dissertation contents and statements].

[Vote on introduction]

[Vote on results section]

[Vote to discuss]

[Abstract]

I recommend that the Department of Medicine at the Johann Wolfgang Goethe University, Frankfurt am Main, accepts the dissertation [with the following stipulation]:

[Name the conditions, if any].

Points of view for the assessment of scientific work according to the resolution _____ of
the faculty council

1. Content aspects

1.1 Question

1.1.1. Is the question original?

[...]

1.1.2. Is the question relevant?

[...]

1.2. Results

1.2.1. Are the results determined correctly?

[...]

1.2.2. Are the results described correctly?

[...]

1.2.3. *Have the results been processed appropriately?*

[...]

1.3. *Statement*

1.3.1. *Does the statement correspond to the results?*

[...]

1.3.2. *Does the statement correspond to the question?*

[...]

1.3.3. *Is the statement significant in any respect?*

[...]

2. *Formal aspects*

2.1. *Concept*

[...]

2.1.2. *Presentation of the results*

[...]

2.1.3. *Presentation of the conclusion*

[...]

2.2. *Methodology*

2.2.1. *Is the methodology appropriate to the research question?*

[...]

2.2.2. *Have several methods been used to back up the conclusion reached by one method?*

[...]

2.3. *Literature*

2.3.1. *Has the literature really been reviewed, i.e. evaluated with regard to the research question?*

[...]

2.3.2. *Has the essential literature been recorded?*

[...]

2.3.3. *Has been quoted correctly?*

[After random checking of the extensive bibliography, correct citations have been made. A brief search of internationally accessible databases found no significant work that was not cited. The discussion shows an exemplary review of the literature.

The reviewer did **not** examine the dissertation for plagiarized content].

2.4. *Style*

[...]

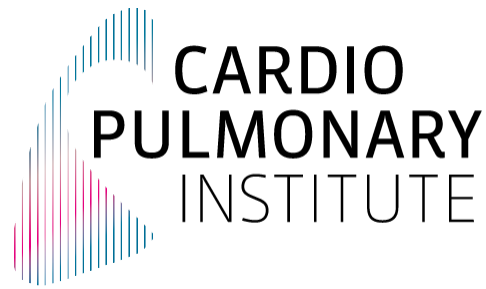
I commend the Cardio-Pulmonary Institute (CPI) for unreserved acceptance of the dissertation as a course credit with the grade:

[...]

[Title First name Surname of the reviewer, Stamp]

[place], the [date of the opinion].

Annex 9: Sample PhD Certificate



The Faculty of Medicine, Goethe University Frankfurt am Main &
The Faculty of Medicine, Justus Liebig University Giessen

hereby award to

[Salutation Title Forename Surname]

[name at birth] in [place of birth].

the degree of

Doctor of Philosophy (PhD)

on the basis of [his/her] proven academic ability in the form of a thesis entitled

[Title]

as well as by doctoral examination.

The candidate has been awarded the final grade of [grade].

[place], [date of award]

Dean of the Faculty of Medicine,
Goethe University Frankfurt

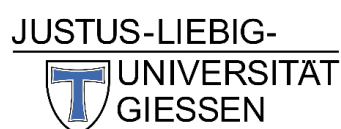
Dean of the Faculty of Medicine,
Justus Liebig University Giessen

Director of the MPI-HLR,
Bad Nauheim

[Title Forename Surname]

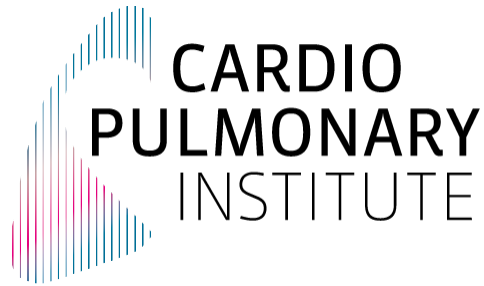


[Title Forename Surname]



[Title Forename Surname]





Der Fachbereich Medizin der Johann Wolfgang von Goethe-Universität Frankfurt am Main & der Fachbereich Medizin der Justus-Liebig-Universität Gießen

verleihen hiermit

**[Anrede Titel Vorname Nachname]
[geb. Geburtsname]
geboren am [Geburtsdatum] in [Geburtsort]**

den Grad

Doktor der Humanwissenschaften (Dr. sc. hum.),

nachdem [er/sie] in einem ordnungsgemäßen PhD-Verfahren durch die Thesis

[Titel]

und durch die mündliche Prüfung [seine/ihre] wissenschaftliche Befähigung
bewiesen hat. Die Studienleistung wurde mit der Gesamtnote [Note] beurteilt.

[Ort], [Datum der mündlichen Prüfung]

Dekan des Fachbereichs Medizin,
Goethe-Universität Frankfurt

Dekan des Fachbereichs Medizin
Justus-Liebig-Universität Gießen

Director of the MPI-HLR,
Bad Nauheim

[Titel Vorname Nachname]



[Titel Vorname Nachname]



[Titel Vorname Nachname]

