



## **Advisor guide**

Research project

Clinical Research





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#### Introduction

Dear advisor,

Thank you for your efforts in supporting and advising our students during their research project! The research project is a major part of the master programme. Our master students spend about 1,5 years working on a research project, developing skills and using new-found knowledge to contribute to the scientific community.

The Health Sciences and Clinical Research master programmes are characterized by a strong emphasis on the research project. Students work on their research project over the course of their programme, culminating in a final research paper that is assessed by multiple assessors.

Students in either the Clinical Research master programme or the Clinical Research major in the Health Sciences programme are assigned an advisor for the duration of their research project. This is because the research projects in these programmes usually take place in a clinical setting. In order to provide the student with enough support during their research, the advisor has a supporting role for one or more students. This is a supplementary role to that of the supervisor, who has a more direct and intensive supervising role during the project.

This advisor guide gives you an overview of the tasks of the advisor, as well as a further explanation of the research project and its components. The guide also explains what is expected of you as advisor for each step of the research project. The information is divided into several chapters, in order to make it easier to navigate.

If you have additional questions about what your role as supervisor entails, please feel free to contact the programme administration at <a href="mailto:osc.gs@erasmusmc.nl">osc.gs@erasmusmc.nl</a>.

# Graduate School

## **Summary**

This summary provides an overview of the main tasks of advisors.

#### Main tasks

- Participating in Advisory Board meetings between all advisors and the associate programme directors of the Health Sciences programme. (6x per year)
- Advising one or more students over the course of their (clinical) research project.
   These projects cover approximately 1,5 years and are the main component of the study programme.

This tasks consists of the following components and estimated workload, spread out over the course of those 1,5 years:

- o <u>Initial meeting(s)</u> to help student find a suitable supervisor (1-1,5 hrs)
- 1-3 meetings over the course of the student's research project to discuss the progress of the research project with the student and their supervisor. The first meeting takes place during the student's first year, the other meetings take place during the second year. (0,5-1 hrs)
- Assessing the student's <u>research proposal</u> (1 hr)
- Assessing the student's <u>midterm report</u> in which they elaborate on their progress thus far (1 hr)
- Acting as second assessor for other students' <u>research papers</u> and attending their <u>defence meeting</u> as second assessor (1 hr)
- If, based on the initial meetings, the student appears to be a good fit for your own research department, you can act as supervisor for that student. In that case another advisor will be assigned to the student.

#### Important things to keep in mind

- The research project has a set amount of EC, depending on the student's master programme (see overview below). Keep this in mind when discussing the scope of the research project as this should approximately be in line with the amount of EC set for the project, and keep an eye on this over the course of the project.
- Aside from working on their research project, students are required to choose and follow a number of elective courses. As most elective courses cover a full time workload, students likely have very little time to work on their research project during the weeks they are participating in courses.

#### Scope of research project

The student you are advising over the course of their research project is either in the Clinical Research programme, or in the Clinical Research major within the Health Sciences programme. Both programmes have the following details:

- **Programme duration:** 2 years (120 EC)
- Study load for research project: 65 EC (1820 hours)
- **Students' previous experience:** bachelor's degree, likely no significant research experience



## Research project overview

Students start their research process about halfway through their first Fall semester and work on the same project during the rest of their programme (1,5 years).

The research project contains several different components, depending on the programme the student is in. The following table shows an overview of the approximate timeline with deadlines for each component. Follow the links in the left column to navigate to the paragraph with more information about that topic, including information on the specific tasks of the advisor for that component.

YEAR 1		
Select supervisor	1 December	
Research proposal + presentation	14 February	
YEAR 2		
Intermediate check-in	Between May – September Deadline 30 September	
Midterm report	December, before Christmas break	
End presentation	June, before handing in paper	
Research paper	1 July	
<u>Defence</u>	July, after research paper assessment	



### Research project components

#### Select supervisor

Main workload: October/November

Students start their research process about halfway through their first Fall semester. They are first invited to a meeting with the (associate) programme director of their major of interest. In this meeting, the students discuss their research interests, and the associate programme director advises them on a possible advisor. Following this meeting, it is the responsibility of the student to contact the advisor to discuss the possibilities for their research project.

Step-by-step, the process for finding a supervisor is as follows:

- 1. Student meets with (associate) programme director and is assigned an advisor.
- 2. Student meets with advisor to discuss possible supervisors.
- 3. Student contacts and meets with potential supervisors to discuss options for their research project.
  - a. If the initial suggestion for a supervisor does not result in a suitable research project, the advisor suggest an alternative.
  - b. If that is still unsuccesful, the student can be refered back to the (associate) programme director.
- 4. The student informs programme management about their final supervisor before 1 December.
- 5. Programme management checks the suitability of the supervisor and research project.
- 6. Once the supervisor and project have been confirmed, the student starts working on their research project.

Several things are important when deciding on the research project the student will be working on and who their supervisor will be:

- A supervisor needs to be a senior faculty member at Erasmus MC or Erasmus
   University Rotterdam with an appointment of at least 0,4 fte at Erasmus MC.
   Supervisors need to have considerable research experience (minimally at PhD level).
- Additionally, students can be assigned a junior (or daily) supervisor with whom they
  have more frequent contact and who is more directly involved with supporting them
  throughout the project. However, the main supervisor carries the final responsibility
  for the student and the assessment of their work.
- Students need to be provided with a working space at the supervisor's department.
- The scope of the project needs to match the study load (amount of EC) set for the research project – see the summary page for an overview of the study load per programme.
- During weeks when students are participating in courses, their course work takes
  preference over their research work. It is therefore important to plan the research
  work accordingly.

Once the student has found a research project and supervisor, they share this information with programme management through OSIRIS Case. The programme management will do a

final check to confirm the suitability of the supervisor and research project before the student can continue working on their research proposal.

After supervisors have been assigned, students can only change supervisors with permission from programme management.

#### Research proposal

#### Main workload: February/March

At the start of their research project, students write a research proposal. The objective of this component of the research project is to help students formulate a relevant problem and translate it into a scientific question, formulating objectives and other details necessary to properly organize and complete their research project. The student's research proposal assessment is mainly focused on providing feedback on the following components:

- objectives;
- · study design;
- data collection procedure;
- data analysis procedure;
- time schedule;
- presentation and discussion.

After the students have written their research proposal, they are required to present this proposal to their supervisor and a representative of their research group. The supervisor and representative then provide feedback on the proposal through the feedback form available to students in Canvas. Using this feedback, the student adjusts their proposal and uploads the revised version to OSIRIS Case, where the supervisor assesses whether the feedback was sufficiently integrated.

Step-by-step, the research proposal is assessed as follows:

- 1. The student sends their research proposal to the supervisor for approval;
- 2. The student presents their proposal to their supervisor and a representative of their research group.
- 3. Following the presentation, the supervisor and the representative complete the research proposal feedback form (available to the student in Canvas).
- 4. The student adjusts their proposal based on the feedback and submits the final version in OSIRIS Case.
- 5. The supervisor assesses the integration of the feedback in OSIRIS Case.
- 6. The advisor provides additional feedback on the proposal in OSIRIS Case.

#### Role of the advisor

Once the revised proposal has been submitted, the student's advisor is assigned to the Case. The advisor will receive an email from OSIRIS Case letting them know a task is waiting for them.

After logging into OSIRIS Case, the advisor is asked to provide the student with additional feedback. This feedback is shared with the student through the system.



#### Intermediate check-in (only required from 2024 onwards)

#### Main workload: no specific role for the advisor

The intermediate check-in is a new component of the research project and is only required for students in the two-year research master programmes. This check-in is not intended as an assessment of the student, but rather as a 'performance review' about halfway through the project to see whether everything is going well and to provide feedback on the way the student functions as a researcher.

The intermediate check-in can take place any time between May of year 1 and September of year 2, with the final deadline being 30 September. It is up to the student and supervisor to decide on the best timing to do this, also depending on the timeline of the project. Some projects may have a heavier workload at the start and a check-in can be done earlier, whereas other projects have a slower start and there may not be much to review until a bit later in time.

For the check-in, the supervisor and student will discuss the student's performance using the rubric that is used to assess the project performance at the end of the project. This way, both parties can have a good overview of which components in the rubric still need some work and which are going well. This review can then also be used to reflect back at the end of the project.

Step-by-step, the intermediate check-in is organized as follows:

- The student schedules an appointment with the supervisor to discuss their performance.
- 2. The supervisor and student discuss the student's performance using the project assessment rubric, available to students in Canvas.
- The student uploads the filled out form in OSIRIS Case. Here, students will also be asked to answer a couple of questions about how they are doing and whether there are any issues.
  - Note: the answers of the student are not shared with the supervisor and are merely used to signal any potential issues.
- 4. Programme management checks all submitted forms and answers in order to signal potential issues.

#### Role of the advisor

The intermediate check-in is a check-in between the student and their supervisor. The advisor does not have a role in this component of the project.

#### Midterm report

#### Main workload: December/January

About midway through their research project, the student presents their research project thus far through both a presentation for their supervisor and a written report for their advisor. The aim of the midterm report is to ensure the student is still on the right track and that they have made sufficient progress in their research project. The midterm presentation assessment is mainly focused on providing feedback on the following components:

objectives;



- study design;
- data collection procedure;
- data analysis procedure;
- results so far;
- potential issues;
- · student performance during project;
- presentation and discussion.

The midterm presentation is assessed as follows:

- 1. The student writes a report detailing their progress thus far.
- 2. The student presents their research project thus far to the supervisor and a representative of their research group (not their second assessor).
- 3. Following the presentation, the supervisor and the representative complete the midterm presentation feedback form (available to the student in Canvas).
- 4. The student submit their progress report, presentation, and feedback form in OSIRIS Case.
- 5. The advisor assesses the student's progress and provides additional feedback in OSIRIS Case.

#### Role of the advisor

Once the midterm report has been submitted, the student's advisor is assigned to the Case. The advisor will receive an email from OSIRIS Case letting them know a task is waiting for them.

After logging into OSIRIS Case, the advisor is asked to provide the student with additional feedback. This feedback is shared with the student through the system.

#### End presentation

#### Main workload: no specific role for the advisor

At the end of your research period, the student is required to give a presentation about their research project and findings to their research department. As the end presentation takes place around the same time as the research project and paper assessment, it is not assessed separately. However, the supervisor will be asked to confirm that the student has completed their end presentation when assessing the research project. The goal for the end presentation is for the student to share the results and conclusions of their research with fellow researchers, and to practice their presentation skills.

It is up to the student to ensure the presentation takes place before they submit their research paper for final assessment.

Note that this presentation is separate from the defence that is required of students in the two-year research master programmes.

#### Role of the advisor

The end presentation is organized by the student at their own research department. The advisor does not have a role in this component of the project.



#### Research paper + project

Main workload: May-July

#### Note that this assessment procedure was changed in Fall 2024!

At the end of their research project, students hand in a research paper, including all required elements for publication in an international English-language scientific journal with a good reputation in its field. As an attachment to this paper, the student is required to add an integration paragraph describing their research project and their specific role in the research, as well as elaborating on the way the elective courses they completed contributed to their research project.

The research paper is the main product of the research project, and together with the student's performance during their project and the defence, it is the only part of the research that is graded with a numerical grade.

The requirements for the research paper are as follows:

- The paper should be <u>entirely</u> the student's own work, despite collaborating with their supervisor and their research group. The student is expected to write all parts of the paper themselves. If the paper is submitted to a journal for publication, it is therefore likely that the draft version submitted as a thesis cannot be the same version of the paper as the one submitted to the journal.
- The paper should include all required elements for publication in an English-language scientific journal with a good reputation in its field. This includes an abstract.
- There are no set guidelines for the layout of the paper, but the student should use a consistent reference style, such as AMA or Vancouver style. The most fitting style to use will mostly depend on which style is most commonly used in the specific research field.

In the event the research project culminates in multiple papers, the student is allowed to hand in a maximum of two papers. This can only be done under the following conditions:

- 1. The papers are written under the guidance of the same supervisor;
- 2. The papers are a result of the same research project, and the topics of the papers are sufficiently related;
- 3. The papers can be graded by the same assessors;
- 4. The student has permission from both their supervisor and programme management to submit two papers.

Students are also required to add an additional paragraph to their thesis, in which they discuss the integration of the courses they have followed over the course of their programme and their research. The assessment of this paragraph is included in the research paper assessment. The different forms and guides relevant for the assessment procedure are available in <a href="this Sharepoint folder">this Sharepoint folder</a> (under 'Research Master (120 EC)'). Make sure to check you are using the correct form when assessing your student!

Students in this programme are required to complete a defence as part of the assessment of their research project. The current full procedure is as follows:

- The student writes their draft research paper, including an integration paragraph that details the role of the student in the research process, and submits this in OSIRIS Case.
- 2. The supervisor provides written feedback on the submitted research paper, and assesses the student's performance during the research project.
- 3. At the same time, the second assessor is asked to provide <u>written feedback</u> on the submitted research paper using the form provided in OSIRIS Case.
- 4. The written feedback is shared with the student, who is expected to use this to prepare for their defence. The defence should take place at least 5 days after the feedback has been submitted by supervisor and second assessor, to ensure the student has sufficient time to prepare for their defence.
- 5. The student's defence session takes place with all assessors present. A thorough explanation of the defence and the role of the supervisor and second assessor in this is available in the defence guide.
- 6. Immediately following the defence, the supervisor and second assessor discuss the student's work and defence performance. They collaboratively complete two assessment forms: one for the research paper, and one for the defence. Both forms can be found here.
- 7. The supervisor is required to submit both completed forms in OSIRIS Case as soon as possible after the defence.
- 8. After the supervisor has submitted the assessment forms, the second assessor is asked to confirm the assessment in OSIRIS Case.
- 9. All components of the submitted assessment are sent to one of the Associate Programme Directors for final approval, as they are appointed as examiner for the research project.

#### **PLEASE NOTE:**

- The defence for Research Master students can <u>only</u> take place if all feedback of the research paper has been submitted in OSIRIS Case in time, because the student is required to respond to the received feedback during their defence. If feedback is not provided on time, the defence will be postponed.
- Advisors act as second assessors for <u>other</u> students than the one they have been advisor to over the course of the research project.
- The defence session should be entirely in English.
- In their presentation, the student focuses both on their research project as well as on the content of their integration paragraph. This means that the student also discusses the research process, including their role in data collection, skill building, etc.

#### Role of the advisor

For the assessment of the final research paper, the advisor can have one of two roles:

 Advisors act as second assessors for students they have <u>not</u> been advisor to during the project. This is done to as much as possible avoid having a second assessor who is personally involved in the research project. As second assessor, the role of the advisor is to provide feedback on the research paper <u>before</u> the defence takes place, and to attend and assess the student's defence session.

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2. The student's own advisor acts as examiner for the research project. In this role, the advisor does not assess the research paper and is not present for the defence. The role of the examiner is to ensure that the assessment process has been fair and without abnormalities. Note that this is not an additional assessment of the student's work, and the confirmation should be based on the assessment of the supervisor and second assessor(s) only.

Once all assessments have been submitted, the student's own advisor is asked to confirm the following:

- The plagiarism check contains no abnormalities;
- The research project has been assessed fairly and without abnormalities;
- The research paper and integration paragraph have been assessed fairly and without abnormalities.

All assessments are registered in OSIRIS Case. You will receive an email from the system when a task is waiting for you.

#### Additional tasks

As mentioned in the summary at the start of this guide, one additional task of the advisor is to meet with the student and their supervisor about 1-3 times over the course of their research project. These meetings are intended to ensure there are no issues with the student or their project and to check that everything is still on track.

It is the responsibility of the student to organize and to record these meetings.



#### **Roles**

Throughout their programme and research project, students are supported and supervised by a number of people who each take on a different role. This chapter aims to provide an overview of the tasks and responsibilities for each role.

#### Supervisor

The supervisor is the main support for our students during their research project. Students perform their research project at the department of the supervisor and work together with them and other colleagues at the department to bring their project to a successful ending.

The supervisor is the main point of contact for the student, as well as their primary assessor. They provide the student with adequate and useful feedback throughout their project, and help the student learn and grow.

Although the main supervisor carries the final responsibility for the student and the assessment of their work, it is possible to assign a junior (or daily) supervisor who is more involved in the day-to-day supervision of the student. This junior supervisor does not have to meet the requirements that are set for the main supervisor (see chapter 'Select supervisor'), as long as the junior supervisor works under the supervision of the main supervisor.

The guide for supervisors, with further information on their role and duties, is available via <u>our website</u>.

#### Second assessor

After submitting their research proposal, students are assigned a second assessor who provides them with feedback on each component of their research project. This is done from a distance – the second assessor is not involved with the research project itself. Second assessors are assigned by the Associate Programme Director of the student's major based on the student's research topic, and are chosen from a pre-compiled list of possible second assessors.

The main task of the second assessor is to provide objective feedback and to ensure the research is of sufficient epidemiological nature. The research paper, along with the content of the rest of the programme allows our students to register a Epidemiology A with the Dutch Association for Epidemiology (VvE). It is therefore important that the second assessor holds a VvE registration (either A or B).

The guide for second assessors, with further information on their role and duties, is available via our website.

#### Associate Programme Director

Each of the different majors in our programme has their own Associate Programme Director (APD).

- 1. 10-minute meetings: During the first semester of their programme, each student meets with the APD of the major they have expressed interest in when applying for the programme. In this short meeting, the student and the APD discuss the student's research interests. Based on this, the APD proposes a number of possible suitable supervisors for the student's research project. In the case of students in the Clinical Research programme or major, the APD matches the student with one of the advisors from the Clinical Research Advisory Board who will in turn help them find a suitable supervisor.
- 2. Examiner: The APD also plays an important role in the final stretch of the research project, as the APD acts as examiner for the research project. It is a requirement that all assessment in our programme falls under the responsibility of an examiner appointed by the Examination Board. This role is performed by the APD for two reasons: firstly, there are a number of requirements that examiners need to meet, which not all supervisors meet. Secondly, by being examiner for a larger number of students, the APD can get a better indication of the fairness and quality of the assessment made by the assessors.

#### Advisor (Clinical Research only)

One of the major differences between the Health Sciences and Clinical Research programmes, is that research performed by Clinical Research students often takes place in the clinic. To ensure that these students still have enough support in their research project, they are each assigned an advisor. These advisors are members of the Clinical Research Advisory Board, made up of clinicians who are also highly experienced researchers.

The advisors provide secondary support during the research project, and act as second assessor for their students. Students in the Clinical Research programme are required to meet with their advisor a number of times over the course of their research project.

#### Student

Of course, the main role in the research project is held by the student themselves. The research project is their work, and it is therefore important to note that the student carries responsibility for this project and their functioning within the project as well.

It is the responsibility of the student to keep track of what is required of them, including corresponding deadlines. The student is also responsible for proper communication between all parties involved, as well as for organizing timely meetings with their supervisor and, if applicable, advisor.

Information on the requirements for their research project is provided to students via Canvas. If anything is unclear or the student runs into any issues, they should contact Team Graduate School at graduateschool@erasmusmc.nl.



#### **Additional information**

#### Generative Al

The rise of publicly available generative AI tools such as ChatGPT has brought new challenges to the assessment of our students' research projects. While the use of generative AI is not necessarily prohibited in the research project, use of generative AI tools should be credited. A more comprehensive policy on the use of AI within the Graduate School is currently in the works. Once this is available, it will be shared with all students and supervisors.

Within the research project, concerns regarding data security when using generative AI tools are also relevant to note. All information shared with chatbots such as ChatGPT is automatically stored on the servers of the respective companies, outside of the control of Erasmus MC, Erasmus University or the student themselves. Specifying that the data may not be used for training these models is not guaranteed to prevent this. Therefore, students are not allowed to share data from patients, research participants, students, or employees with a chatbot. Sharing sensitive and/or confidential data with a generative AI model may even be seen as a data leak and could be in violation of laws such as the General Data Protection Regulation (GDPR, or AVG in Dutch).

We advise students to consult with their supervisor and/or other superiors in their research department before using generative AI as a tool in the research project, to safeguard the data security of Erasmus MC, the department and the research project. We urge students to remove all sensitive information, including unpublished research data and other Erasmus MC-specific information, from their texts before using it as input for generative AI.

For more information on the safe usage of generative AI, check out the <u>University Library</u> webpage on the topic.

#### Personal Education Plan (PEP)

Every Research Master student is expected to make a Personal Education Programme (PEP): a document in which they plan their personal programme. The PEP covers meetings with their supervisor, planning elective courses, and research seminars, and is concluded by writing a reflection on the student's personal and professional development over the course of their study programme. The student is responsible for organising the meetings according to the PEP, for adding the summaries and for obtaining signatures from their supervisor where necessary.

As part of the PEP, students are required to attend 24 research seminars over the course of their programme. Attended research seminars must be registered in the PEP, by collecting proof of attendance or a signature of the lecturer of the research seminar. If this is not possible, it is also allowed for the supervisor or advisor to sign for a seminar. Students can download the PEP template from Canvas.

As part of the Personal Education Plan, students are required to write a reflection on their personal and professional development over the course of their programme. This reflection is then discussed with the supervisor, and the supervisor is asked to assess the student's ability to reflect on their development using the rubric included in the PEP.



#### Elective courses

Students can further customize their programme by choosing elective courses that match their interests and professional needs. Elective courses are scheduled during the winterspring semester, and during the Erasmus Summer Programme(s) in the month of August. Registration for winter-spring electives takes place during the prior fall semester, registration for elective courses in the ESP opens in spring. Students are free to choose their elective courses, bar any specific prerequisites or scheduling conflicts.

It is also possible for students to complete elective courses at other school or institutes (both within and outside of Erasmus MC), provided that they obtain permission from their supervisor and the examination board, and the course is not a skills course. An additional number of requirements for external electives is available to students on the General Information Canvas page they have access to.

#### **Publication**

It is important for supervisors and their student to discuss their expectations for (co-) publication of the paper at the start of the project, to avoid disputes at a later stage. Guidelines for authorship (among other things) are published in the Erasmus MC Research Code, which can be found on Agora (the Erasmus MC intranet).

If the research paper written by a student leads to a publication, the supervisor needs to make sure to mention the affiliation with the Erasmus MC Graduate School, in the acknowledgements or otherwise.

#### **OSIRIS** Case

The Health Sciences and Clinical Research programmes uses the online tool OSIRIS Case for the research assessment procedure, for all programmes and majors. All assessors (supervisors, second assessors and members of the Clinical Research Advisory Board) must register their assessment in OSIRIS Case. To log into and use this tool, assessors can use their microsection number and password. OSIRIS Case sends out an email when action is required in the research assessment procedure. More information about OSIRIS Case will be send out to all assessors before first use.

#### In case of conflict or other issues

We aim to provide a problem-free research period for our students. However, it is important to know what the options are in case you or the student do run into any issues.

The student's first point of contact is their supervisor, and we advise students to initially discuss any questions or problems with them. If the supervisor and student are unable to solve their problems together, or the student has issues with their supervisor or wider research group, the next point of contact is the student's advisor. If necessary, the advisor can then contact the programme coordinator as they will be able to help out further. The

programme coordinator can consult the Clinical Research programme director when necessary.

Note that a confidential counsellor is available, that students can turn to when confronted by behaviour or circumstances they <u>experience</u> as unwanted, such as (but not limited to) aggression and/or violence, (sexual) intimidation, bullying, discrimination, stalking, or unequal treatment. Information shared with the confidential counsellor is confidential and will not be shared with others without your explicit permission.

Contact information for the programme coordinator, as well as the confidential counsellor, can be found on STiP, or contact <a href="mailto:osc.gs@erasmusmc.nl">osc.gs@erasmusmc.nl</a>. Please do not hesitate to contact us, as we are here to help our students succeed! Additional resources regarding support for students can be found on STiP as well, such as contact information for the study advisors.

In addition to the above, the rights and obligations of our students, examiners and of the programme are outlined in the following documents:

- Teaching and Examination Regulations
- Rules and Regulations of the Examination Board
- Student Charter