

Thesis Advisory Committees & TAC Meetings

Thesis Advisory Committee (TAC)

Each PhD student is advised by a TAC consisting of at least 3 members. One member is the first supervisor. Further, the student chooses one co-advisor, who has to be a group leader from another department or institution. The second co-advisor can be any group leader or postdoc from the MPIPZ or another institution who is able to constructively advise the student. Further co-advisors can be elected where this seems sensible, e.g. in more interdisciplinary or collaborative projects.

TAC assembly & Agreement on Training and Supervision

A TAC should be assembled within the first 3 months of the PhD studies by the PhD student and communicated to the Graduate School office (gradschool@mpipz.mpg.de). The PhD student and TAC sign the *Agreement on Training and Supervision* and submit the signed form to the Graduate School Office.

TAC Meetings

The PhD student has to organise his/her TAC Meetings and must inform the Graduate School Office about date, time and location. All written reports have to be circulated to the TAC and the Graduate School Office at least two weeks before each meeting. For each meeting, the student prepares a presentation (~15–20 min), followed by a discussion (~30–40 min). In addition, the student has to present his/her lab book (or equivalent) to the TAC in each meeting.

All TAC Meetings should include a 5–10 minute discussion without the PhD student and 5–10 minute discussion without the first supervisor. It is recommended that the discussion without the student takes place at the beginning of the meeting and the discussion without the first supervisor at the end of the meeting.

The *Meeting Minutes* for every TAC Meeting have to be signed by every TAC member and by the PhD student. The student keeps the form and returns it to the Graduate School Office.

1st TAC Meeting (after 5 months)

Within the first 5 months, the PhD student organises the 1st TAC Meeting. A 5-month deadline is strictly to be met, as it leaves the students enough time to get settled at the institute while ensuring a good start with his/her work. In preparation for the meeting, the student prepares a written report of not more than 1000 words. The report should conceptually describe *what* scientific problem or question the student plans to address and *why* this is important. It should briefly touch on *how* the problem/question will be studied and reflect on difficulties that may arise.

In case of problems or conflicts, the direct thesis supervisor and PhD student should inform the Graduate School co-ordinator before this and other TAC Meetings. The TAC must approve the student's progress to continue the project beyond the 6-month probationary period.

2nd & 3rd TAC Meeting (after 12 and 24 months)

12 months and 24 months into the project, the PhD student delivers a written report of about 3000 words. The purpose of the report is to update the TAC on the student's progress, to allow the student to practise scientific writing and to create a useful resource for future writing tasks, such as conference abstracts. The format of the report should assume the format of a thesis or manuscript and contain these elements:

- an abstract that concisely (aim for 200–250 words) summarises the entire report
- an introduction that provides the context of the project and delivers the necessary background to understand the report. The introduction should contain a concise statement of the goals and

objectives and a description of the (experimental) approaches used to answer these questions, ideally as a bullet point list at the end of the introduction

- a material and method section should only be written if a more detailed description of non-standard techniques is necessary to interpret the results. Otherwise, the results section should describe the (experimental) approaches in sufficient detail
- a results section that objectively presents the PhD student's findings through descriptive text, figures
 and tables. Figures and tables must be accompanied by legends that allow the reader to understand
 the results independent of the descriptive text in the results section
- a discussion that interprets the PhD student's findings in the context of prior knowledge in the field, explores the implications of the findings and examines potential limitations. The discussion should connect to the introduction
- an outlook section in which the PhD student conceptually sets out a plan for the time until the next TAC meeting and defines achievable milestones. A graphic illustration, such as a Gantt chart, can be included can be included, if appropriate
- A reference list

Particularly for the 24-month (3rd) TAC Meeting, the report can resemble the form of a manuscript to facilitate publication of a paper.

After 12 months and in the 2nd TAC Meeting, the PhD student and the TAC should discuss whether the PhD studies should be continued as originally planned. If the TAC does not approve the student's progress, the IMPRS Steering Board (for IMPRS students) or the Graduate Studies Committee (for MPIPZ Graduate School students) will be notified.

The function of the 24-month (3rd) TAC Meeting is to confirm that the PhD student is making satisfactory progress and to support and advise the student on how best to proceed towards successful completion of a thesis. In rare instances where the TAC feels that the student's progress precludes submission of an adequate thesis, the TAC may recommend that the student leaves the graduate programme. Particularly the 3rd TAC Meeting should include a discussion on a possible extension of the PhD student's funding and on a suitable publication strategy.

Final TAC Meeting (after ~33 months, i.e. before the actual thesis writing phase)

This meeting facilitates the preparation and submission of the PhD thesis, and particularly the format of the Final TAC Meeting should be discussed with the first supervisor well in advance. Typically, the PhD student prepares an outline of the PhD thesis and circulates it to the TAC two weeks before the meeting, instead of a written report. The student prepares a presentation to interactively discuss open questions where the student needs the committee's advice such as:

- What will you include and what will you not include in the thesis?
- How will you structure the thesis into chapter and sub-chapters?
- Will you write the thesis as a monograph or as a combination of published papers, submitted papers and unpublished manuscripts? You can find details on the integration of papers and manuscripts here
- Do you need any final experiments/analyses for the thesis? If so, which? And where to prioritise?
- What is a realistic time line to submit and defend the thesis? You can find corresponding guides here and here and can look up potential dates here
- Is an extension of your current contract needed?
- Who will review your thesis?
- How will you publish data beyond the thesis?

It is recommendable to invite the reviewers of the PhD student's thesis to the Final TAC Meeting if they have not been members of the student's TAC.

Potential questions to prepare your TAC Meeting

The list below is a non-exhaustive compilation of questions you may ask yourself before a TAC Meeting to identify areas in which you need advice from your committee. Remember that TAC Meetings are not meant to be one-way streets and that you proactively ask for advice in these meetings.

Project

- Which goals were defined in the last TAC Meeting/when you started? Were these achieved?
- Have you experienced any obstacles or problems in reaching these goals? Have you developed an idea on how to address these problems?
- Are you maybe even more generally concerned about the defined goals and do you think that some of them must be massively redefined, or even eliminated?
- Have new research questions arisen that require discussion and that may redefine your goals?
- Do you have a clear idea which project goals are (currently) particularly important and why?
- Which goals can be realistically achieved until the next TAC Meeting?
- (How do you intend to schedule the completion of your project and the writing of your thesis?)
- Do you feel comfortable documenting your results and how they were obtained, i.e. would someone else be able to reproduce your research based on your documentation?

Presentation of data

- Have you had enough opportunities to present and discuss your project?
- Do you feel comfortable to present and discuss your project? If not, where do you think does that come from?

Motivation & independence

- Do you feel fully in command of your project? If not, why is that and what do you need to take command?
- Do you occasionally, or even regularly, lack the motivation to work on your project? Is there any particular
 activity or issue that drains your motivation?
- What could be done and what could you do to maximise your motivation?

Supervision

- Have you met your supervisor regularly and do you feel sufficiently supervised and mentored?
- Do meetings with your supervisor tend to me productive? In your opinion, could you and your supervisor improve the productivity of your meetings? If so, how?
- Have you been supported by your co-advisors? Do you feel comfortable approaching them? In which areas could they support you?

Lab & resources

- Do you have access to all necessary resources to achieve your project goals?
- Have you obtained the support from members of your lab/group that you need to accomplish your goals?
- Do you need or would you like to collaborate with someone to advance your project and/or to expand your skills? Do you need support to establish such a collaboration?

Personal development

- Which scientific and professional skills have you recently obtained?
- Are you satisfied with the obtained skills or are there additional skills which you would like to train or be trained in? Can you think of suitable ways to train these skills, such as cooperation with local colleagues, research stays in other labs/groups but also courses and workshops?
- Would you like to (actively) attend any upcoming scientific meetings? Do you need any recommendations
 or advice how to take part?

Critical thinking & scientific literacy

- Can you keep up with the literature related to your project?
- Do you set aside enough time to read and digest relevant publications?
- Do you feel comfortable identifying the relevant literature for your project?