Support in Personal & Professional Development

Focus on the individual and the scientific output.

Encourage your PhDs to "compare themselves with themselves".

Avoid high pressure to publish.

Encourage your students to build up a wide network of people to collaborate with and to socialize on a personal level.

Be willing to guide students not just academically but also in their professional development.





WELL-BEING IN PHD EDUCATION

Based on feedback from MIM PhD students in 2023

Fairness & Inclusion

Be fair and treat everyone equally.

Effective Communication & Feedback

Communicate in a kind, benevolent, clear, authentic and respectful way.

Address difficulties and criticisms at an early stage.

Make explicit agreements on all major aspects of supervision.

Give clear feedback.

Working Structures

Help in structuring the PhD time.

Discuss the time and frequency of meetings.

Agree on working hours, daily presence, holiday arrangements.

Exemplify and promote a good work-life balance.

Discuss the scope and objectives of the project that can be met in 4 years.

Write down any changes made to the research plan to ensure that they are clear.

Well-being in PhD education: How to create a healthy working culture and support your PhD students to prevent mental health issues and manage stress

Based on the internal evaluation of the MIM PhD Program on mental health in 2023, we herewith share ideas on how to create a good and healthy workplace. It is intended as an inspiration for our PIs and we hope that everyone will take responsibility for promoting a pleasant and productive working environment that has a positive impact on the career and mental health of our PhDs.

Below, we have listed the main concerns of our PhDs and offer approaches on how to proactively address them to prevent or minimise the development of discomfort. This document serves as a working sheet that can be improved over time based on your experience and feedback.

The role of the supervisor is to encourage, challenge, and support the student to ensure a healthy development of the student's skills and career. The supervisor and students mutually contribute to this development. We emphasize that constructive and open communication is the key to achieve this goal.

Student concern #1:

Role ambiguity – uncertainty about the role in the study and the expectations of the supervisor

Approaches to solve concern #1:

Clarify mutual expectations and independence

At the beginning of a PhD, both parties should discuss the working relationship. An effective instrument for <u>making explicit agreements</u> on all major aspects of supervision is provided by the Aarhus University¹: the student and the PI independently outline their expectations of supervision. The expectations are then compared, aligned and discrepancies discussed and solved. This method helps to minimize uncertainty and conflicts.

The ideal <u>balance between support and freedom</u> can differ greatly among PhDs. Very close supervision may be well-intentioned, but PhDs often interpret micromanagement as a lack of trust and increased pressure. Conversely, some PhDs prefer clear guidelines and can feel disoriented by having too much freedom. Thus, a personalized mentoring style often works best. To find the right balance, expectations about the level of independence should be discussed early on and across various stages of the doctoral process.

Student concern #2:

Uncertainty about the research topic: lack of structure and no clarity about expected milestones

Approaches to solve concern #2:

Define the project boundaries and set realistic milestones

Discuss the <u>scope and objectives of the project</u> as early as possible. Projects should be clearly defined and delineated from other projects in the group to avoid internal competition. Set realistic milestones. The PhD student should be able to develop during the PhD. Thus, set smaller milestones first to allow a sense of achievement, and steadily progress to larger milestones.

Help your PhD student to <u>develop an overall plan and timetable for the research project</u> to ensure that objectives can be met in 4 years. The timeline should include the different activities PhD students are involved in, such as teaching, course work, etc. Assist your doctoral student in the preparation of a compelling research proposal². This document will be discussed at the first committee meeting (ETH: aptitude colloquium). Use the subsequent committee meetings to adjust and refine the research plan. New objectives should be clearly explained in the committee meeting report.

Discuss the <u>scope and frequency of meetings</u> and clarify the aim of these meetings. Regular specific feedback sessions are crucial, to both provide motivational input on aspects where progress has been made and to identify remaining challenges. Once more, remember that the PhD work is a continuous journey and challenges should be increased in a stepwise manner so that the doctoral student can acquire new levels and competences over time.

¹ Aligning expectations: tools to make explicit agreements

² <u>Doctoral Plan_template (ethz.ch)</u>

Student concern #3:

Work-life imbalance (long working hours, limited free time)

Approaches to solve concern #3:

Maintain a healthy work-life balance

Discuss and agree on daily <u>working hours and presence time</u>. Clarify that a PhD often requires extra efforts (e.g. longer working days and weekend work) based on experimental setups. At the same time, allow for flexibility by permitting reduced presence after a long workday or weekend as compensation. The mutual aim should be to maximize self-motivation and productivity and not the hours spent in the lab.

Discuss the <u>holiday arrangements</u> at your institution/group. Encourage PhDs to take vacations. Vacations must be taken within the given calendar year and one unit should consist of at least two consecutive weeks³⁴. Taking time off is important for good physical and mental health, as well as to spark new motivation and productivity⁵.

Similarly, encourage your PhDs to be active outside the lab (pursuing hobbies and spending time with friends and family). Especially for international PhD students, it can be difficult to set boundaries between academic and personal life. A PI's supportive attitude for a healthy work-life balance fosters an environment where students feel valued and motivated to achieve their goals.

Student concern #4:

Impostor Syndrome (doubts regarding abilities and strengths)

Approaches to solve concern #4

Help with overcoming Impostor Syndrome – the good and the bad side of having doubts⁶

Most of our PhDs suffer from the imposter syndrome (IS) at some point. They have doubts regarding their abilities, strengths, and self-identity. This can undermine motivation, productivity, and mental health and result in poor academic performance. Signs of IS may include not asking questions, hiding insecurity and weakness in knowledge, avoiding risks and difficulties, and reducing contacts with colleagues.

Pls should offer support in such situations. Encourage your PhDs to "compare themselves with themselves" and let them see how they have progressed over time rather than comparing themselves with their peers. When giving feedback, stay concrete, stick with the data, and work to create dissonance between the evidence and your PhD's self-assessment⁷. Focus on the individual and the scientific output and affirm your PhD student as a professional and as a human being. IS occurs very

³ Information_sheet_Uniform_implementation_working_hours.pdf (ethz.ch)

⁴ Vacation | UZH for Staff | UZH

⁵ Ten simple rules to improve academic work-life balance | PLOS Computational Biology

⁶ Tips for Coaching Someone with Imposter Syndrome – International Coaching Federation

⁷ Mentoring Someone with Imposter Syndrome (hbr.org)

commonly in academia and even among successful PIs. Talking openly about how widespread this phenomenon is and perhaps sharing personal experiences can help to reduce the syndrome.

Finally, IS can also be reframed in a positive way if it is not too pronounced: "The good news for someone with this syndrome is that a healthy dose of self-doubt might be helping them achieve more. They realize and accept that they don't know everything. They assume that their constraints need to be supplemented by learning and are typically more willing to work hard to get better." ⁶

Student concern #5:

Concerns about future career and employment prospects

Approaches to solve concern #5:

Provide advice and guidance in career questions

Worries about the future career are a major concern for many PhD students. It is important that PIs not only provide academic advice but also support the professional development of their students.

Pls can support their students at various levels. 1. Offer specific meetings to solely discuss career options and answer questions. PhD student often wait too long before they think about their next career step. Proactive discussions and agreements on timelines can be a big help. 2. Encourage students to invest in transferable skills (teaching, mentoring, presentation skills, statistical skills, etc.). Such skills can make the differences when searching for jobs outside academia. 3. Support students in their networking activities. Allow them to participate in workshops and conferences within and outside the university to build a wider community. Also introduce the student to your own network, which may be an invaluable resource for your PhD student to identify postdoctoral research and other job opportunities.

Student concern #6:

Pressure to publish ("publish or perish")

Approaches to solve concern #6:

Set realistic publication targets achievable within 4 years

The need to publish can create a huge strain on the PhD student and the PI alike. While a measurable, peer-reviewed research output is indispensable in academia, small changes in how to manage the publication process can make an important difference for the well-being of everyone. 1. Incorporate the publication concept into the overall planning (see solutions for concern #2). 2. Do not let students compete for first authorship. This creates a toxic and stressful atmosphere. Instead offer collaborative projects with shared first authorships or agree on students taking turns for first authorships when multiple publications are involved. 3. Consider alternative scientific outputs, such as writing reviews, co-authorship through assisting the project of others (with manageable efforts) or presenting results at conferences. All these options can have a positive impact.

More literature:

Mental health of graduate students sorely overlooked (nature.com)

Perfectionism, impostor phenomenon, and mental health in medicine: a literature review – PMC (nih.gov)

Principles_of_good_assessment_and_feedback (au.dk)

Additional student concerns:

Finally, many of our PhDs do not experience <u>fairness and equity</u> in their group (35% somewhat or strongly disagree that, "all members of the group are equally treated"). Avoid favoritism and ensure that all students are treated fairly and in a comparable manner. Ensure equal opportunities to participate in courses and conferences, access consumables, and meet with you.

Our PhDs wish that "difficulties and criticisms are addressed at an early stage".

One of the key qualities to build a positive and productive relationship with students is communication. 28% of our students somewhat or strongly disagree that "my supervisor has a nice way of communicating (kind, benevolent, clear, authentic, respectful).