

Advising Statement: Hai-Bin Ruan, Ph.D.

I strive to provide trainees with a constructive environment in which they can develop their scientific skills that allow them to achieve their career goals. Being a guide, I help trainees navigate through activities, requirements, and steps needed to achieve their degrees/goals. Being an adviser, I share my experience in research, writing, and professional integrity to help trainees become scientifically independent. Being an evaluator, I explicitly communicate expectations, have weekly meetings to provide feedbacks, and review academic progress annually. Being a supporter, I motivate trainees by sharing my enthusiasm, encourage the effective use of time by helping develop schedules and plans, and support diverse career paths by providing advice and letters. Last but not least, I hope, as a friend, I give personal support and caring that trainees often need to deal with financial, health, and family problems. This document outlines my advising philosophy, and expectations and responsibilities for my trainees and for myself.

Research:

- I expect trainees to work with me to develop a research project. Although I will help initiate this, especially for new students, the best and most successful research is done by trainees who take “ownership” of their research.
- Trainees will be actively involved in all aspects of the project, from literature search, hypothesis generating, experimental design, reagent purchases, data generation, analysis and presentation.
- Research should be rigorous, reproducible, and performed in line with ethical standards.
- I will identify distinct projects for each trainee; however, modern biomedical research is a team sport and I encourage cooperation between trainees, in terms of both practical and intellectual contributions.
- Typically, trainees are working on two distinct (but related) projects, which provides flexibility of pursuing the most tractable and exciting research direction.
- Science doesn't always follow a simple schedule – trainees may frequently need to be prepared to come to the lab on weekends or odd hours to achieve their research goals, as dictated by the underlying scientific questions.

Graduate Stipends and Funding:

- I have the primary responsibility to provide for adequate funding of both the research and stipend for my trainees.
- I expect my trainees to participate in the writing of grant proposals, including writing their own fellowship proposals. While successfully obtaining funding is not a requirement, writing fellowships is viewed as an important training exercise.
- While such applications are written by the trainee, I will work closely with them to refine and submit their proposals.

- Preliminary data from trainees often goes into my research grant proposals, and I work with trainees to see how their work is used as a basis for new studies.

Authorship and Data Ownership:

- I expect my trainees to publish high-quality, peer-reviewed first author publications. As the first author, trainees are expected to prepare a first draft of the manuscript.
- Discussions about authorship should occur early in a research activity that is likely to lead to a publication (NIH guidelines [here](#)). Research projects in my lab are sufficiently diverse that it is clear who will be first (or, occasionally, co-first) author on a publication, based on being the major source of experimental data, an active role in design and interpretation of experiments, and drafting the manuscript describing this work.
- Published and preliminary data generated in the lab are the property of the lab and can be used in publications, grant proposals etc. during training.
- Each trainee must maintain an up-to-date lab notebook that I have access to at any time, to clearly show when and what work was done, using what methods. Original lab notebooks are the property of the lab.
- Electronic data (included raw and analyzed) should be shared with me and designated lab members through Google Drive.

Reading and writing expectations:

- I expect trainees to keep up with the literature. Trainees should set aside time for reading primary literature every day and discuss those publications with me. I will also forward you papers to read periodically. ([Request access](#) to Ruan lab shared reading folder)
- I expect trainees to write drafts of abstracts and manuscripts and I will work closely with them to develop their writing skills on subsequent drafts. Trainees are encouraged to attend writing courses/workshops offered at the U.
- Any written documents (abstracts, applications, etc.) that pertain to our research should be approved by me prior to submission.
- I will be available to listen to practice talks and provide input on slide presentation and verbal communication.

Meetings with advisor:

- I will ensure that we meet regularly, at a mutually agreed upon intervals (usually weekly in addition to lab meetings). I recognize that this interval will vary with each person's needs and change at specific times during the course of training.
- To maximize the value of these meetings, trainees should come prepared. Data should have been analyzed, with initial interpretation and follow-up studies outlined. Data can be shown as printouts or on-screen.

- I am readily accessible for contact in person, by email or telephone. It is my goal to read and respond to all work submitted to me, normally within a day or so, unless constrained by my other responsibilities.

Seminars, Research conferences, and meetings:

- I expect my trainees to participate in all laboratory group meetings.
- I expect my trainees to regularly attend seminars and programs related specifically to their research and graduate program. Examples are IBP seminar series, MICaB seminar series, Immunology supergroup meeting, Metabolism and Metabolomics Club, Pharmacology Seminar series, and FScN Seminars.
- Trainees are expected to actively participate meetings by asking questions, brainstorming ideas, and providing feedback.
- I expect my trainees to seek out opportunities to meet with invited external speakers. This is an outstanding networking opportunity.
- I expect my trainees attend and, in later years, to present their research findings at local, regional, national meetings at least once a year.

Independence:

- Taking ownership of your research project entails achieving a degree of independence, in terms of both technical versatility at the bench and an active role in directing the project. This develops over time but is critical for success.
- Part of this independence arises from seeking collaborative input from others in the lab, the department, or other groups at the UMN and beyond.
- This is a two-way street: as you master your research project, others will come to you to consult and collaborate – I expect all lab members to be collegial, professional, and willing to support each other's research.
- Don't be reticent about suggesting new ideas that build on your project – after discussion, some of these may be pursued while others shelved, which is part of the process for identifying fruitful research directions.

Professional Career Development:

- I will support the professional development goals of my trainees, and work with them to help define what those will be and how to best achieve them.
- I recognize that we all need mentor teams. I will help my trainees identify and seek out external resources that will help them reach those goals if they are not part of the laboratory expertise or that of graduate program training.
- I expect my trainees to complete the annually required IDP Progress Report and use this as a tool to guide their professional development.

Communication skills

- Presentation of data in regular lab meetings and discussion of articles at journal club meetings are expected.

- For formal presentations at departmental and national/international meetings, I will meet with the trainee to discuss their preparations and feedback after their talks. Trainees are encouraged to also seek input from other colleagues.
- Trainees are encouraged to participate in the “Red seminar series” for guidance on effective presentations.

Monitoring Progress and Assessments:

- I expect graduate students to fulfill all the requirements of their programs, including working with program coordinators to sign up for courses, schedule annual committee meetings and submit annual review forms.
- I will support students as they prepare for their qualifying exams, including allowing time for developing their written proposal and prepare for the oral exam.

Timeline and Time Management:

- Students in my lab are expected complete their PhDs within 5-6 years of joining the program (3-4 years for MSTP students).
- The timeline for postdoctoral fellows is more variable and is dependent on their career goals.
- I expect trainees to commit the time needed to complete their research work. This can be highly variable depending on the stage of the project. Trainees often need to work outside normal office hours to achieve their goals, but we can discuss how to tailor the work schedule with the trainee’s other obligations.

Personal Life and Wellness:

- I encourage trainees to assess their physical and mental wellbeing – and they should not hesitate to contact me if they have work-related or personal issues.
- I ask that trainees notify me well in advance of time off for vacations/holidays and develop plans to cover ongoing experiments and lab duties.
- I will share my scheduled travel with you, so that you can plan accordingly for meetings or mentorship activities.
- We often have social events within the extended lab group – this can be a great opportunity to bond with colleagues outside the lab environment and all trainees are welcome (but not pressured) to attend.

Professionalism and ethics:

- Trainees must complete all required Responsible Conduct of Research and other ethics training.
- All trainees should treat everyone in the work environment with kindness and respect. Harassment or discrimination against colleagues will not be tolerated.
- I will monitor and sustain the fiduciary and ethical standards in my group, in compliance with institutional and federal regulations.

- Trainees will be expected to be a good lab citizen and take part in cleaning up after themselves in the lab, as well as taking up shared “lab maintenance” duties.
- I expect trainees to support efforts for recruiting new personnel by participating in graduate program recruitment events or meeting with postdoctoral candidates.
- If you feel uncomfortable about a situation at work, you should bring these concerns to me, members of your committee or other trusted faculty. UMN has excellent resources on conflict resolution (<http://www.sos.umn.edu/>).
- If instances of sexual misconduct, discrimination or retaliation are disclosed to me, I will report these to the appropriate UMN authorities for investigation.

Advisor statement on Diversity:

The Ruan laboratory is committed to fostering and maintaining a culture of equity, inclusion and diversity and to providing an environment in which all members of the lab can strive to achieve their full potential. Commitment begins with the admission that systemic bias and discrimination are as much a part of the academic and scientific environment as they are of society at large and that a conscious and sustained effort is needed to identify, and combat, such bias. Our commitment, thus, extends to -

- a) actively facilitating a culture where any member of the group can speak up, ask questions and be heard and feel included, regardless of background or ability
- b) celebrating the unique capabilities of each member and using these to improve our interactions and to strengthen our science
- c) mentoring in a manner that respects and supports needs, styles and career goals of individuals without discrimination