

## ADVISING PHILOSOPHY

Bryce Binstadt, MD, PhD

My overall mission is to help each of my advisees achieve their individual goals and for my laboratory to achieve its common goals. Science is fun, but it is also frustrating and hard work. I seek to support my advisees in their pursuit of great science.

### Research:

- I expect my advisees to work with me to develop focused research questions.
- I expect my advisees to publish high-quality, peer-reviewed manuscripts.
- I expect my advisees to read and understand the relevant background literature and historical context of their research area. Broader reading in related (and unrelated) areas is encouraged.
- Research should be rigorous and reproducible.
- My laboratory functions as a team. All lab members contribute importantly to the team.

### Authorship and Data ownership:

- Advisees in PhD training programs will be first authors on manuscripts pertaining to their primary project. However, multiple lab members and external collaborators typically contribute to each manuscript. Authorship and order of authorship will be discussed openly among all lab members.
- Data that advisees generate will be used in my own grant proposals.
- Advisees must keep accurate records of their research. These records will remain in the laboratory or appropriate storage facility after the advisee leaves the laboratory.

### Stipends and Funding:

- I commit to securing stipend funding for each advisee, with the assistance of the graduate program. Multiple sources of funding will be explored (individual research grants, training grants, fellowships).
- The process of writing a grant proposal is an essential task for scientists. Advisees are expected to seek individual funding (e.g. NIH F-award). I will work closely with advisees to develop and submit fellowship proposals.

### Writing:

- I work on a 1:1 basis with each advisee to develop writing skills, for both grant applications and manuscripts.
- Manuscripts and grant proposals consist of pieces/portions. I expect advisees to write routinely over a period of time, and to submit the pieces/portions to me frequently for feedback. I will

provide prompt feedback. Advisees should not wait to have a complete product before seeking feedback from me.

- Advisees are encouraged to attend grant-writing workshops.
- Suggested Reading: [Do I Make Myself Clear?: Why Writing Well Matters](#). By Harold Evans.

#### Meetings:

- I will meet individually with each advisee on a regular basis, typically once per week. I will respond promptly to emails.
- Advisees are expected to attend all lab meetings.
- Advisees are expected to attend weekly Immunology Supergroup and to present their findings annually in that forum.

#### Seminars, Research Conferences, Meetings:

- Advisees should attend the MICaB Invited Speaker Seminar Series and relevant invited speaker seminars in other forums.
- Advisees should attend the MICaB Student Speaker Series. MSTP students should additionally attend MSTP Grand Rounds and other MSTP-specific seminars.
- Advisees are expected to attend local, regional, national, and sometimes international meetings to present their work and to establish professional ties/networks. Multiple funding mechanisms exist to support meeting attendance and travel, and I will work with advisees to identify these funding sources.

#### Independence:

- I have numerous responsibilities that limit my availability in the lab. Advisees therefore must be able to function independently and with the assistance of other laboratory members. Advisees should seek me out in person or by email when additional guidance is needed – I will respond promptly.

#### Monitoring Progress and Career Trajectory:

- Advisees should meet with their thesis committee at least annually.
- Advisees should make their career goals/plans known to me before joining the lab. If career goals/plans change, I need to know. My role is to help you to achieve your goals.

#### Communication Skills:

- Advisees are strongly encouraged to gain skill in public speaking. The Center for Immunology currently is hosting a seminar series focused on public speaking.
- Suggested Reading: [Talk Like TED: The 9 Public-Speaking Secret of the World's Top Minds](#). By Carmine Gallo.

### Personal Life and Wellness:

- There is more to life than work. Advisees need to take time for themselves, in order to ensure physical, psychological, and social well-being.
- Sleep. No one benefits from sleep deprivation.
- Effective time management and efficient use of one's time are essential to success in science. Numerous resources to improve time management are available, and I will freely share my own tactics.
- I am always available to discuss personal issues of advisees. It is easier for me to provide overall guidance to advisees if I have insight into their life outside the lab.
- Advisees should be aware of the [mental health and wellness resources](#) at UMN.

### Timeline:

- I expect PhD advisees to complete their PhD training in ~ 5 years, and for MD/PhD advisees to complete their PhD training in  $\leq 4$  years. Each advisee should have at least one first-authored, peer-reviewed research manuscript prior to completing the PhD degree.

### Professionalism and Conflict Resolution:

- Advisees should behave professionally and treat all others with respect. Anything else will not be tolerated.
- Advisees should speak to me if there are concerns about interactions with other lab members. If there are concerns about interactions with me, please reach out to the graduate program DGS or other program leaders. The [Student Conflict Resolution Center](#) is a helpful resource.

### Additional Suggested Reading:

These are books I like because they provide insight into what it is to be a scientist.

- [Factfulness](#). By Hans Rosling.
- [Advice to a Young Scientist](#). By Peter Medawar.
- [The Emperor of All Maladies: A Biography of Cancer](#). By Siddhartha Mukherjee
- [Lab Girl](#). By Hope Jahren.
- [Microbe Hunters](#). By Paul De Kruif.

We have discussed this advising statement and understand the expectations and responsibilities that come with entering into this advising relationship for PhD training.

\_\_\_\_\_ Date: \_\_\_\_\_

PhD student

\_\_\_\_\_ Date: \_\_\_\_\_

PhD advisor