

*Dr. Mary Goll*

*Mentoring Philosophy:* As a mentor, I have learned that it is critical to understand and respond to the unique learning styles and training needs of each member of my laboratory. Therefore, I take the time up front to talk with every trainee about their goals and expectations for our mentoring relationship. Then together we agree upon communication strategies and training benchmarks for the coming year. These strategies and benchmarks are included in a written document that serves as a form of mentor-mentee compact. Communications strategies are reevaluated and new benchmarks are set annually when we go over trainee IDPs, or sooner if needed.

I have also come to appreciate the importance of assuring that all trainees in my lab have the foundational skills they need to succeed. Therefore, I spend a significant amount of time in the first year ensuring that trainees entering at all levels have good research habits and a strong command of the literature. In addition to research discussions and wellness check-ins, we have regular conversations covering best practices for experimental design, record keeping, communicating research, developing a reading practice, and effective time management. In addition, all laboratory expectations and routines are explicitly stated in our laboratory manual, and I go over this material with every trainee when they join the lab.

For postdoctoral trainees, my goal is to quickly identify and remedy any foundational deficiencies and then to help them to transition toward performing research with increasing levels of independence and creativity. Postdocs are encouraged to initially take on two projects, one being a clearly defined off-shoot of a project already underway in the lab that they can rapidly start producing additional data for, and which is very likely to lead to authorship on a publication within the first two years. In parallel, postdocs are encouraged to come up with a second project of their own that fuses their own unique interests and skill sets with those of the laboratory to develop a passion project. These projects are often riskier, and postdocs typically take on primary intellectual ownership of them from their inception. Projects are developed over regular meetings with me. Funding by an NIH R35 for established investigators allows me to support a variety of projects so long as they relate to chromatin regulation in the context of development and/or disease.

I strongly believe that independence within a carefully curated support structure provides the best chances of trainee success. All trainees in my lab participate in weekly lab meetings and are scheduled for weekly one on meetings with me. While a small amount of time is always devoted to checking in on progress, and experimental design, I try to emphasize a culture in these meetings that is focused primarily on big-picture science and professional development. Importantly, these meetings always begin with a wellness check-in. As individuals progress toward independence, these meetings always remain on my calendar, but individuals are given the freedom to decide when they want to take advantage of them, and when they'd rather have more space to grow their ideas and think about their results on their own.

I have also learned that when trainees are not meeting the benchmarks that we have set together, there is almost always a barrier to success that they are reluctant to share. Therefore, I place significant effort into developing trust with my trainees, so that they feel comfortable sharing their challenges and asking for guidance. We emphasize mental health and well-being resources, and the idea that individuals can be successful in science while also being kind, maintaining healthy lifestyles, and prioritizing appropriate work-life balance. We emphasize a culture where setbacks are normalized, and trainees recognize that often what might seem like momentary failure is really a sign they are taking appropriate risks and challenging themselves.

*Conflict resolution strategies:* I try to set a culture of regular, open communication within my laboratory. Lab members are viewed as partners in their training, and in most cases, I find honest discussion allows for the development of mutually agreeable solutions to arising challenges. Classic strategies including clarifying the source of problems, using active listening, and reviewing options for resolution empower trainees to direct conversations toward positive conclusions. I also encourage trainees to identify peer mentors and mentorship relationships with faculty beyond my lab, providing additional avenues for working through challenges before they become conflicts. I believe trainees are ultimately in charge of their own destinies, and in cases where there are conflicting views, so long as I do not see the potential for lasting harm to the trainee or my laboratory, I will generally defer to the trainee after extensive discussion. In the event of a true conflict, I will encourage the

postdoc to meet individually with other faculty members in our chromatin group for advice, and then we will all convene as a group to identify an acceptable solution to the conflict.

*Mentoring plan:*

In my experience, effective mentorship plans must be developed in collaboration between the mentee and mentor, taking into account the mentee's preferred communication/learning styles, background preparation, and training/professional goals. Therefore, it is difficult to outline a realistic plan for a hypothetical future trainee without meeting them and discussing these things. However, below are some general components that are often present in my trainee mentorship plans.

In general, trainees have the opportunity to meet one on one with me weekly to discuss progress, project/training goals, professional development, and general well-being. Trainees are given opportunities to develop their oral communication skills through presentations at weekly lab meetings, chromatin club group meetings and local symposia such as the developmental biology retreat. I encourage trainees to develop writing skills through writing fellowships and papers. We have a culture of peer editing in the laboratory, and trainees develop additional writing skills by helping to edit each other's writing and my writing. Trainees are given opportunities to expand their professional networks by meeting with genetics seminar speakers and attending meetings. Typically individuals in my laboratory are encouraged to attend one regional and one national/international meeting every year. We also participate in a monthly international web based discussion group focused on early embryogenesis and the material to zygotic transition. In the beginning, I encourage trainees to attend meetings that I will also be at so that I can facilitate introductions. When appropriate I am open to giving my speaking slots to more senior trainees to help provide them with increased exposure. Trainees are also encouraged to attend career development opportunities on campus that are appropriate for their goals, and when such opportunities are not otherwise available on campus, I use my network of contacts outside the university to help facilitate needed professional development opportunities. In many cases, mentorship experience is a component of professional development and all trainees have the opportunity to mentor undergraduates in the laboratory. When this happens, discussions centered on effective mentorship become a regular additional part of weekly one on one meetings. All members of the laboratory must have an Individual Development Plan, which we revisit annually at an extended meeting devoted to reflection and goal setting for the coming year.

My laboratory has a cultivated culture of teamwork, respect, and inclusivity. Trainees in my laboratory come from a diverse array of ethnic, socioeconomic, religious, and cultural backgrounds. We respect all trainees regardless of their beliefs and personal lifestyle choices. Kindness, hard work, and high ethical standards are acknowledged and celebrated alongside results and awards. These standards are non-negotiable.

My laboratory is currently in a post-pandemic rebuilding phase. For the next phase of my career, I think an ideal lab size for my group will be ~3 graduate students, 2 postdocs, a technician, and 2-3 undergraduates. Currently, my laboratory consists of 3 graduate students, a technician, and 2 undergraduates. I am currently in the final discussion phases with a postdoc candidate that I will likely hire for a July 1 start (Visa issues require this start date, and my understanding is he won't be able to apply to the FFIRE because of this timeline). A second postdoc recruited through the FFIRE program would bring my group in line with ideals. All members of my laboratory identify their own set of research questions embedded within the larger interests of the group. Individuals lead their own projects, but typically share developed reagents and methodological skill sets to support each other. In addition to first-author papers, it is very common for individuals in my group to serve as co-authors on additional lab papers as a result of these supporting roles.

Our laboratory is deeply integrated into the fourth-floor chromatin group in the Davison Life Sciences building. We meet weekly with the laboratories of Dr. Bob Schmitz, Dr. Zack Lewis, and Dr. Brad Nelms. Members of our groups also regularly interact and collaborate on the floor. This means that postdocs in my laboratory will have opportunities to develop strong connections with other faculty who can serve as informal mentors and job references. They are also integrated into a larger community of students and postdocs for scientific discussions and personal enrichment. In particular, the Schmitz laboratory typically has several postdocs among its members.

