**Trainee Orientation Document**

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**Overview**

It is my responsibility to provide you with the resources, mentoring and support you need to carry out and publish high-quality research and assist you in achieving your career goals. I am here to serve you and help you be the best version of yourself.

It is your responsibility to be passionate about your work and advance your career by doing the best, most reproducible science possible.

Every person and every project has different needs that change over time. Please keep me updated on your scientific and personal aspirations. If you need anything (a piece of equipment, more time with me, collaborators, etc.), ask and I’ll do my best to provide.

**My responsibilities and traits**

In addition to the above:

* My main role is to keep everyone happy, productive, and funded. I will work with everyone to deliver this. If a member is systematically lacking either of them despite our best efforts, I will also do my best to help them find a better place.
* I will have a 1:1 meeting with you every week, however you are free to walk into my office anytime outside of this time if you have a question or want to ask, or show me something in the middle of an experiment or analysis. I will always have time for you. If I am in a meeting or doing something that takes lots of concentration I will signal so and come and find you as soon as possible.
* I will do my best to find exciting projects for each one of you, provide you with the resources and mentoring to execute them, and involve you with collaborative projects that you may contribute to based on your skill set and level of interest. However, I will not enlist anyone for any project without first probing their level of interest and availability.
* I will support your career development by introducing you to other researchers in the field, promoting your work at talks, letting you attend conferences as finances permit, and helping you prepare for the next step of your career, whether it’s a post-doc, a faculty job, or a job outside of academia.
* I am not a micro-manager, and I will not excessively manage anyone unless they specifically ask for it. I want you to think independently and critically, and eventually evolve into a scientist capable of independent decision making. However, I will not be absent either: I will be around as much as I can, and make sure I attend to everyone's needs (e.g. providing feedback on project ideas, conference posters, talks, manuscripts, figures, grants) as quickly as I can.
* The synergy in the lab is more critical to me than one person’s productivity. Therefore, I will take everyone's opinion into consideration before accepting a new member to the group (except rotation students, interns, and visiting scientists with short planned stays).

**Lab culture and expectations**

Please help me create and maintain a vibrant research environment that is intellectually stimulating, rigorous, productive, collaborative, fun, emotionally supportive, and conducive to learning and personal growth. This will allow each of us to become not only better scientists, but also better citizens.

Many things in this section are open to discussion. There can be exceptions; we just need to talk about them first. It is our best interest to avoid not delivering something from this list systematically and quietly.

* Maintain the highest level of scientific integrity (it’s OK to make mistakes -- honesty will *always* be rewarded)
* Be willing and available to assist other members in the lab in both formal and informal ways and solicit help from me or other lab members if you are stuck.
* Give lab members ample credit when it comes to acknowledgements or authorships on papers (always err on the side of generosity)
* Actively participate in lab meetings. Present when it is your turn during our lab meeting, and attend each presentation to listen to others. For paper discussions, come to lab meeting having read the paper and prepared with comments and questions to contribute.
* Present a Research in Progress (RIP) seminar at ISB and UW Dept. of Immunology once a year. Additionally, be there to support your colleagues at their presentations.
* Attend talks at UW and ISB, especially the Immunology faculty seminars (Immun 573) and ISB’s institutional guest seminars. Do this regardless whether you think it is relevant and worth for your time, especially if you are a PhD student or a postdoc. Even the talks that seem to be least relevant to you will play a role in your progress by helping you develop a broader vision. This will also make you a good citizen of our institute and department.
* Be regular in attendance. This is critical for the group’s synergy and for the personal development of everyone (family must come first and life events take priority). Each member represents a significant fraction of our group. For this reason, we aspire to be around regularly to maximize our time together. Being in lab is a good way of learning from others, helping others, building camaraderie, having fast and easy access to resources and people you need, and being relatively free from distractions at home (e.g., your bed or Netflix). As a guideline, we agree to be in the lab between 9 am and 5 pm (or 10 am and 6 pm) every non-holiday week day. There are always exceptions and these times are not written on stone. Depending upon your role and project (computational, experimental, managerial) remote work (1-2 days a week or as needed) is okay. Keep me apprised of your schedule. Regardless of your role, my primary concern is that you get your work done and I will never keep tabs on your time as long as you are making good progress and being productive.
* Be responsive on email and/or Slack during work hours (except when on vacation, maternity/paternity leave, or sick leave).
* Follow and efficiently use the lab calendar.
* Be on time for your meetings and commitments: respect that others have packed days and everyone’s time is valuable. Give sufficient heads-up if you need to reschedule.
* Become an expert of the lab’s literature and the literature in your specific area of research. I expect you to know what the lab has published, and actively read and master the literature relevant to your work.
* Familiarize yourself with the lab’s IACUC (Institutional Animal Care and Use Committee), BSC (Biological Safety Committee) and BUA (Biological Use Authorization) protocols. Never perform any experiments involving animals or biological agents without first checking that they are approved on the lab’s protocols. When in doubt feel free to ask me.
* Reach out to me when you need help. In addition to technical and intellectual difficulties, science life can have steep ups and downs. Even when you are excellent at what you are doing and on the right track, doubts can be quite challenging to overcome. I wish you to let me know if you are going through a rough patch. Check out [Uri Alon’s TED talk](https://www.youtube.com/watch?v=F1U26PLiXjM) about the scientific process, its triumphs and challenges.
* Don’t overwork. Look out for your mental health and take time to cultivate your life outside of work. Academic life can be stressful. Arrange vacation time. Keep me in the loop if you feel burnt out.

**Commitment to excellence**

Hold yourself to the highest standards in terms of reproducibility, innovation, and clarity. With gentleness and compassion, hold other lab members to these standards as well. Let’s work together to produce high quality science that our colleagues can look up to.

**Meetings**

Besides the group meetings, every member will at least have a 1-hour slot per week to have a private meeting with me. Unless I am traveling or sick, this is time reserved for you. During the times of travel, I will do my best to meet you through Skype if you are willing. The purpose of these meetings is to review the state of your research, discuss new data or ideas, think through troubleshooting and bottlenecks if any, prioritize experiments or analyses for the coming week(s), and broadly make sure that your project(s) is on track. Depending upon several factors, sometimes these meetings will be very short and sometimes we will need the entire hour. My goal is not to burden you with meetings however I would like to stay apprised of your progress. If you’d like a formal meeting schedule beyond this period of time or occasionally reschedule or skip a meeting, let me know.

We will meet formally once a year to touch base on your progress and plans. My objective with these meetings is to make sure you are effectively working towards your career goals. When the time comes for you to start looking for another position, we can discuss how to put together your application and how to best highlight your strengths.

**Timelines and productivity**

**Postdocs:** I expect that you have at least 3 full years where research in this lab is your primary focus (this can vary slightly depending upon whether you are experimental or computational). I expect that you will have at least 1-2 first-author manuscripts submitted before moving on to your next position.

Most postdocs should apply for at least one fellowship at the beginning of their time in the lab. While the likelihood of winning a fellowship is low, the effort required for fellowship applications is minimal compared to the potential gains. They look great on a resume and will help demonstrate your ability to win independent funding. And if you get them, you’ll be helping out the entire lab as well as yourself (because you’ll free up funds previously allocated to you). If you are interested in gaining grant writing experience, please let me know and we can discuss proposal opportunities.

Realize your maximum potential. I believe in the great things that you will do in the lab and beyond. I would not have invited you to join if I did not. Take this opportunity to develop your own independent line of research if you feel that long-term academic research is your calling.

**Graduate Students:** I expect that you have at least 3-5 full years where research in this lab is your primary focus. I expect that you will have at least 1 first-author manuscript published and others submitted before moving on to your next position. We should meet 1-2 years before your estimated graduation date to discuss your next career stage so that we can secure an optimal situation for you after you graduate.

Most graduate students should apply for at least one fellowship at the beginning of their time in the lab. Once you are 1-2 years in and have preliminary data, applying for a F31 is a great option. It’s a valuable experience, and best to get it early. As stated above, the likelihood of winning a fellowship is low, but the effort required for fellowship applications is minimal compared to the potential gains. If you are interested in gaining grant writing experience, please let me know and we can discuss proposal opportunities.

Graduate students should take full advantage of this time to learn new skills, take courses, and go to seminars. It will be rare in the future to have so much protected time to learn. That being said, try not to overcommit yourself -- your research and dissertation work are your first priorities.

**Lab Staff:** I expect that you will accomplish the specific tasks listed in your job posting and help train others as you become more experienced. This is a critical part of your own training.Take opportunities to develop your skills and goals.Be flexible and help make sure that the lab is firing on all cylinders at all times. This may include protocol work, returning orders, ordering new equipment, helping out on specific projects, and leading projects if you have the desire to do so. I will do my best to equitably distribute these tasks. The needs of the lab will be constantly evolving as will your responsibilities, opportunities and abilities. We will work together to define your evolving role in the lab depending on your skills, preferences, and talents.

**Interns and short-term visitors:** I want you to have a have a positive learning experience in our lab. You will likely work under the mentorship of a postdoc, graduate student or other staff in the lab. I expect you to treat the internship very seriously, as you would with any other important career opportunity or class. Be committed to your project and the learning experience. Punctuality, actively learning and completing experiments or analyses related to your project, dependability, having an excellent work ethic and maintaining a high quality of work are a must.

**Informal and formal mentorship and collaboration**

Research Scientists, Postdocs and senior graduate students play an important role in the education of more junior trainees (high school, undergraduate, and newer graduate and technicians). This is a critical part of your own training. You should be willing to help other members of the lab and informally advise them on their work (e.g. show them how you organize and strategize, give them advice on methods, share protocols, chat with them about science, etc.). I hope that you will be heavily involved in at least one project beyond your main project in collaboration with another lab member. Experience in mentorship and collaboration will be useful to you when moving forward in your career. If you see a student/postdoc struggling and/or hear that they are having personal trouble, please bring this to my attention right away.

More formal mentorship experiences can also be arranged. Undergraduate or high school students often reach out asking for formal internships with our group. You are welcome to mentor an intern (depending on your workload) and design projects for them. Internships can take many forms. The only requirement is that they must present their projects at least once at lab meeting.

**Working with collaborators**

Please let me know before you reach out to a potential collaborator and CC me on key emails. When contacting collaborators, you are representing the lab, so please be courteous and professional.

If someone is asking you to do something outside of the lab, tell them to ask me first. This is not only to protect you, but also to protect the lab and its intellectual mojo.

**Conferences and Presentations**

I will provide financial assistance for you to attend about 1 big conference per year and multiple small, local ones as finances permit -- we should strategize together about which meetings make the most sense. Try to apply for travel awards. I expect you to practice talks in front of a group at least once before presenting for wider audiences, (including department seminars in your initial years). You represent the lab and its members when you are at meetings inside and outside of the institute. Make your fellow labmates proud with your excellence.

**Documentation of experiments and analysis**

Be sure to document your wet-lab and dry-lab work so that another scientist is able to reproduce your experiments/analyses. I prefer that this documentation be digital, rather than analogue. Keeping a physical lab notebook is great, but please transfer relevant information into a digital format that can be easily shared with others. Documenting your computational work (e.g. ipython notebooks or R markdown) on a Github repository is a great way to keep track of your code with version control.

**Sharing data and code**

Writing code that is useable by others is hard, but I hope we can work together to minimize duplication. Take the time to write basic documentation and highlight potential pitfalls. The first attempt should be to use, improve, and extend existing pipelines in the lab rather than to create new pipelines. Barring any major legal hurdles, all code and data involved in a peer-reviewed publication should be made freely available to the research community and be directly referenced in the publication itself (regardless of journal policies). Unpublished data and code can be made available to lab members and collaborators, as needed. I encourage you to make your code publicly available when preprints are uploaded.

**Communicating your science to the public**

I encourage people to write blog posts and popular science articles to highlight your work to a broader audience. I would prefer that you share these summaries with myself and other lab members for feedback and edits prior to publication (always best to have another pair of eyes take a look). Blog posts can be published on our [lab website](https://subramanian.isbscience.org/), and we can also look for opportunities to publish posts on other platforms. You should feel free to talk with journalists about your work, but try to let me know beforehand. Always be mindful that you are representing the lab. Be engaging, but try not to over-hype your results.

**Project ownership when leaving lab**

If you embark on a project of your own design when in the lab and want to extend in this direction for your own academic career, please bring this up with me in the early stages so that we can plan accordingly. I will be as flexible as possible to ensure your ongoing success.

*This document draws heavily from lab orientation documents written by the* [*Meren*](https://merenlab.org/culture/)*,* [*Shalek*](https://shaleklab.com/diversity/expectations/)*,* [*Leiberman*](http://lieberman.science/) *and* [*Gibbons*](https://github.com/Gibbons-Lab/manuals-and-policies#trainee-orientation-document) *labs, which I have used as inspiration. This is a living document that is subject to change.*