

Note that I view this as a LIVING document [hence the designation as "DRAFT"]. It is in constant flux, based on experience and input.

— Michael Hsieh, February 27, 2012

[DRAFT]

What I ask of lab members and of myself.

Michael Hsieh

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Finding a Project.

Two brains are better than one, especially when creativity is the task. My hope is that everyone will engage in a period of intense and collaborative thinking when they join the lab and periodically thereafter to conceive of a project that is:

- original
- important
- interesting
- complements other projects in the lab
- meshes with the overall direction of the group and its funding base

I will help shape the project to meet these goals but expect that each person in the lab provides the creative spark behind their respective projects.

Work Ethic.

I expect all to be self-motivated and for the number of hours worked to never be an issue. A flexible time schedule is one of the many perks of our lifestyle. I ask, however, that all members be in the lab for at least a majority of the usual workday (9:30-6) so that interaction with your colleagues can occur for their and your benefit. In other words, I ask that people do not routinely spend the bulk of their workday outside those hours (e.g., come in at 1 and leave late in the evening). Weekends are primarily for relaxing and recharging but keeping the momentum going at work is important and I suspect many will stop by the lab and/or do some work at home to move projects forward.

Absences.

Please let me know if you will be out of the lab for more than one day and the duration of and general reason for that absence (e.g., vacation, conference [I know I *should* know but not easy to keep track of multiple people's meeting plans], etc.). This is so that if someone is not here I/we know that it is not because of an accident and we can also plan conversations appropriately, know when you're back to dig out reagents, etc.

I expect lab technicians, research scientists, and postdocs to comply with BRI's regulations regarding vacations. The lab does NOT shut during the winter holidays and you are welcome to work for whatever portion of this period you choose but most take off a good portion of this time or at least shift into "sustain the

momentum” or “weekend” mode (i.e., not necessarily be completely away but not working long hours each day).

Please leave contact information for emergencies (e.g., cell phone or email) whenever you take time off.

Notebooks.

As you will all know or come to know, past members’ notebooks are a crucial resource. I am required by NIH rules to keep these for several years and they must be usable for verifying data in any publication, should questions arise. You are welcome to make copies of your own notebooks to take with you when you leave but the original must remain here.

My general guidelines are:

1. Use a separate notebook for each project.
2. **Date** every experiment.
3. Indicate the overall **purpose** of the experiment.
4. Record full details of **materials and methods**.
5. Include “back of the envelope” **calculations** (i.e., don’t use the back of an envelope, paper towel, etc.) so that these can be checked if there is a problem (ranging from how you made a 10 mM stock of some reagent to how you made a reaction mix).
6. Present the key **results** and/or refer to any electronic database with the results. Include all original data (e.g., gel photos, FACS plots, etc.).
7. Describe your **conclusions** – write this for your, my and future lab-workers’ benefit. Talk to us! State **lessons learned**, even if negative. Put models in to help you and others think about the work.

Please use a bound lab notebook (sturdy spiral notebooks are OK) so that you can include data in various forms. I like to use one side of the paper for the formal notes and one for the rough notes/calculations/etc.. Printouts, photos, etc. should be attached to lab notebooks using staples, glue, or tape. No free papers should be inserted into lab notebooks.

Shared Reagents.

We cannot afford for everyone to have his/her own tube of everything. Additionally, if everyone removes an aliquot that is, likely, more than actually needed (“just in case”) then we will end up with lots of small tubes with small amounts that end up wasting materials. So, with very rare exceptions, please do not set up your own stash of samples of common reagents.

Unique Reagents.

Please store all unique reagents (i.e, RNA-related) in a box that is clearly marked with your name. Please date everything as YYMMDD format. This is enormously helpful in figuring out the value of what’s in a tube, be it a purchased reagent or a home-grown one (it allows us to look up in your notebook more about it, differentiate between different versions of something and, in some instances, figure out who the tube might belong to).

Please place your name or initials on every tube of truly important/unique reagents (like plasmids, parasites, etc.). We spend a lot of time trying to figure out who owns a given tube and I’m worried about throwing something precious out when a nameless tube shows up somewhere. Obviously, this is not necessary for aliquoted tubes of ROUTINE reagents that are in YOUR box.

A word about labeling. Numbers on the tops of tubes should be underlined so that there is no confusion regarding orientation (i.e., so that “6” and “9” cannot be mixed up). All tubes should be in sturdy racks, or better yet, labeled boxes. Boxes in the -80 freezer should have a waterproof card inside repeating the labels on the outside, since freeze-thawing can lead to outer labels peeling off or becoming illegible.

Talks.

Unless you have given essentially the same talk before, please plan to practice with whomever from the group can come. Likewise, please try to make time to attend a practice talk and give input. Since most of don’t like to be hypocritical, it is useful to criticize and then apply those criticisms of others to your own talk (I do, all the time). I also recommend inviting someone from outside the lab to the talk to catch the omission of things that we all take as “given” but others don’t (e.g., use of lab-specific jargon, system-specific “insider” knowledge, etc.).

I have truly never been anything other than proud to listen to a presentation from someone in the lab. That doesn’t mean we can’t all improve our presentation skills and I will provide feedback for both the practice talk and the actual talk. I will try to apply the FAST feedback principle (Frequent, Accurate, Specific and Timely).

Please provide me with an electronic copy of your talk; these are invaluable summations of your work and a nice complement to the more detailed lab meeting presentations. I also draw on these talks to assemble my own talks since, shockingly, I don’t generate data myself...

Papers.

The earlier you start writing a paper that you think is ready, the better, just to be sure that we don't realize that a key experiment is required very late in the process with a consequent delay in submission.

Please be sure I receive a final copy of a manuscript when submitted to the journal and all submitted revisions.

Regarding authorship, as a rule of thumb, to qualify as a co-author on a paper I expect the contribution of at least one entire figure (not counting supplemental figures), or a significant contribution to writing the manuscript (an entire draft, or extensive writing/editing for multiple drafts). Again, this is merely a general principle and as PI I have the final prerogative (and burden) of deciding co-authors on papers. If you have concerns about authorship for a given paper I am always happy to have a frank and open discussion on a one-on-one basis.

The Community of Science.

Here are some points regarding the "community of science" I would like to foster in the lab. First, I want to promote openness and cooperation. All of you have unique skills and knowledge and can benefit from helping each other out. We can all be more productive if we cooperate rather than compete.

I expect all lab members to be good lab citizens, meaning that you clean up after yourself when using common equipment, and keep your desk and bench organized enough so that items don't get lost. Good organization also improves lab safety by keeping sharps and toxic reagents secured, etc.

Finally, our scientific integrity is the most important quality we can have as scientists. I have a zero tolerance policy for data fabrication, sabotage of colleagues' work, and other unethical behavior.. Please do not ever feel that you are pressured to have "positive results" when experiments don't work. I will never be angry if you honestly report that assays were unsuccessful. Let the science tell the story.

Posters.

LESS IS MORE. Many people, myself included, find posters hard to take in because the space is dimly lit, noisy and full of distractions. As a result, they should not be a paper that you reformat to a poster, with tons of words and details. Instead, they should be very light, generally in bullet format and with relatively few words.

People passing by need to see a short summary to decide if this is something that they want to take the time to look at in detail. Conclusions are also essential.

I like to review posters to help provide input and to be sure that I know what we are saying/showing publicly.

Please send me final copies of all posters electronically for archiving.

Congresses.

Meetings can be invaluable for the information gleaned and contacts formed.

Attendance at sessions is clearly key and I strongly recommend taking good notes as the amount of information flowing in can be overwhelming and impossible to retain.

Using the abstract book as what you take notes in works well in many cases but sometimes, an old-fashioned notebook is best.

Possibly the most important aspect of conferences is meeting new people. The resulting network will enormously facilitate your research both in terms of information learned and the ease of obtaining reagents when those occasions arise. To meet people you may need to GET OUT OF YOUR COMFORT ZONE!! I strongly recommend sitting at meals with people you don't know. Meaning, don't hang out with folk you do know! Introduce yourself to those you sit next to and ask, "what do you work on" and be prepared to do likewise although I suggest answering with "I work on HOW or WHAT..." – pose it as a question you are answering so you don't just say "I'm trying to knock-out..." Another good conversation-starter at meetings is asking someone "What's the most interesting (coolest?) thing you've heard so far?"

Safety.

We work on infectious human pathogens. Your safety, and the safety of your labmates and other institute members, is paramount. I expect all lab personnel to use all required personal protective equipment for experiments.

Please do not open doors using gloved hands. You may have touched toxic chemicals or infectious agents with your gloves and could transfer them to door knobs. Even if you know you have not touched anything hazardous, your labmates and other institute members don't know that.

Behavior in the lab.

I expect all to be supportive of one-another and professional in all interactions with everyone in the lab and in all professional encounters.

Humor is a matter of taste and culture. Please be sensitive to others who may "laugh along" but underneath be very uncomfortable. Please be sensitive about swearing and "off-color" jokes, especially those that might be interpreted as sexist, racist, etc.

It is crucial that the work environment be safe and free from all harassment or discrimination.

Seminars.

I believe that communication within an institution is invaluable in making the most of the community of scientists we are a part of. Selfishly, there is much to be learned from others, often unexpectedly. In addition, input to others is always useful. Hence, I attend as many seminars as possible, be they internal or external speakers. I ask you do the same, especially when the topic is related to our group's work (bladder biology, including cancer, and urinary tract infections).

Lab Retreats.

When we arrange laboratory retreats, I expect all to attend except in extraordinary circumstances. I feel very strongly that the whole point of being in a lab is to benefit from the collective wisdom and knowledge of others and the lab

retreat is a key time to share that. If you think you know more than others, then share your brilliance. If you realize you don't, then go to learn as well as help others.

Scheduled one-on-one meetings.

I set aside a half hour to meet with everyone weekly. I will try to give as much notice of any change as possible but occasionally, I learn of a meeting or seminar that I need to attend on short notice and ask your understanding. I expect the same of you and will likewise understand if things unavoidably change. Sometimes I am coming from the other side of the DC/Maryland area and will be a few minutes late but will always try to call if it will be more than a few minutes. Sometimes, a meeting in my office will be on the verge of some scientific epiphany and I may ask for another few minutes when you come to my door. I promise not to abuse your gift of a few more minutes to me and one of your colleagues. If my door is locked and you're not sure if I'm with someone, always feel free to knock- it is possible I'm working on something that needed concentration and am anxiously waiting for your arrival.

Weekly written reports. Please:

1. Send an update that describes your progress since our last formal meeting by the night before (or, at the latest) 7:30 a.m. in the morning on the day of our scheduled one-on-one meeting. I use the time after breakfast to read these and actually THINK about the work. It is MUCH harder to do that when the report comes just a few minutes before our meetings.
2. Name the report – YYMMDD-xxMHmtg where xx are your initials.
3. Include date at top of report you send (so when I print and place a copy in “your” binder, I have the date).
4. Start with project name and **goal** – one sentence. Obviously, this won't change most weeks but it is very helpful to me and probably not bad for you, to see what you are really trying to accomplish with the work.
5. Include any recent results in graphical format.
6. Describe short-term experimental plans.
7. Powerpoint works extremely well as a format for the data.

Spontaneous conversations. The scheduled meetings are only the *minimum* of the interaction I expect to have with you. Always feel free to stop by. If my door is open, come on in. If it's closed then consider the bar raised in terms of how important the conversation needs to be but don't consider this an absolute “do not disturb”; I won't be shy about saying I'm in a meeting (in case it's not obvious when I open the door).

Lab Meetings.

Attendance. I expect all to attend all lab meetings they are in town for except in truly extraordinary circumstances. Doing otherwise is extremely disrespectful.

Participation. I am forever impressed by the benefit of collective thinking. Please share your thoughts with the group. I have many times seen a “stupid” idea

spark another idea that sparked another that turned out to be truly key to a person's project. Don't be shy about sharing "stupid" ideas – they may not be so insane and will help the creative process. Likewise, please be mindful that everyone in the room deserves an equal opportunity to talk. Some are more reticent to do so and need some "space" to offer an opinion. Please don't dominate the conversation and feel free to continue giving input after the meeting, one-on-one with the speaker.

Presentation. I expect these to be:

Professional. Obviously, they can be informal but that does not mean unprofessional. Be proud of your work.

Clear. Introduce the **question**, even if you're sure everyone must remember it from the last meeting. Odds are they don't and it can never hurt to remind them and you of the real point of the experiments. Remind us of any key aspects of schistosome and/or bladder biology that underlie your work. The life cycle will sometimes be relevant but don't show such if it's not.

Rigorous. It is crucial that you be the most critical of your own data. You will never hang for understating a conclusion; you may (metaphorically speaking) for overstating it.

Time-aware. Only you know what you hope to teach and learn from others. Be mindful of the time and don't hesitate to say, "that's very useful input but I'd like to continue this particular conversation off-line and now move on as I need your help with some work I've yet to describe even more."

Graduation (Ph.D. students only)

I expect all PhD students to graduate in less than six years.

I hope that all PhD students will be able and want to attend the School of Medicine graduation each June. It is a privilege for me to attend and "hood" such individuals and unless essentially impossible for me to be there, I will be! Please let me know if you will attend. I am comfortable with "walking" through graduation before all University requirements have been met but **ONLY** if the thesis committee agrees that you are ready to defend your thesis **AND** a date for the defense has been set.

Finishing in the lab.

Upon completion of your time in the lab, I ask the following:

Leave lab notebooks in an organized and accessible form. That means labeling on the outside by project and indexing all notebooks with date/topic/page so that others don't have to leaf through every page to find something. As above, you are welcome to take a copy of your notebook but the original must remain with me.

Leave a list of all reagents that might be useful to others, appropriately indexed and accessible to others. Please physically show at least one other lab member where your reagents are located.

Discard all materials that could truly be of no use to others.

Help me think about the direction your project should take in the future.

Write up any unpublished results in a timely way and take responsibility for doing such once away.

"Check in" periodically through life. I care about all who have ever been in the lab and hope to maintain some level of contact forever. In addition, I am required to

provide current status information to funders on a periodic basis (e.g., for training grants). And, lastly, it is fun (and a challenge) to keep the “Lab Alumni/ae” website up to date so that you all can keep in touch with each other and prospective applicants can see what kinds of careers people take as they move on. And, for the record, I am proud of every individual’s chosen direction. Without exception.

What I expect of myself.

I will:

- provide you with scientific and professional guidance that furthers your progress toward **your** professional goals.
- treat all equally.
- pay all equally using a transparent pay structure such that all with comparable credentials and experience receive the same, regardless of their personal situation.
- be professional at all times and always err on the side of discretion in how I handle all situations and information.
- respect your time.
- give credit where credit is due, especially in public presentation of any work done in the lab.
- not be the “slow-step” in getting manuscripts submitted.
- be a life-long mentor to the extent you choose to engage me in that role.