

Q&A

The power of perpetual collaboration: An interview with Elçin Ünal and Gloria Brar

Here, Elçin Ünal and Gloria Brar tell us how the Br-Ün Lab came to be, the cons, but mostly the pros, of running a joint lab and things to consider, as well as their philosophies in research and mentoring a diverse group of scientists.

The current team-based Br-Ün lab developed from a Group Lab vision of a highly collaborative research environment in which the laboratory is managed by three to five permanent scientists (the principles) who share common research interests but also possess unique technical skills and research experience. The principles ought to be compatible, believe in the idea that scientific progress can be achieved through highly motivated and skilled people working together, and be driven by scientific curiosity rather than a chase for individual trophies, recognition, or fame. With several experienced scientists in the lab performing research, riskier research directions could be explored without burdening students or postdocs who have inherent time pressures and may prefer less risky primary directions. Expansion of research directions through testing of new ideas and continuous group discussions of potential research directions would be a natural part of a Group Lab set-up. This structure would also enrich training because students would be trained by a complementary panel of scientists, leading to a more well-rounded trainee and a more comprehensive mentorship atmosphere. The Group Lab structure is inherently collaborative and interactive, and also, opportunities for collaboration with outside investigators would be enhanced by the larger scientific network that stems from the group rather than any one individual. Elçin Ünal and Gloria Brar here discuss how their lab emerged from this set of theoretical ideals and how although they haven't been able to integrate all of these aspects completely yet, the central principles are big a part of how their lab works and what they strive for.



The Br-Ün lab

Before we begin, tell us a little bit about yourself. Gloria, where are you from? Where and what did you study? And who did you work with previously?

G.B.: I grew up in Wisconsin and went to college at UC Berkeley. In fact, I pretty much only applied to California schools, based partly on a vision of this state as constantly sunny and warm (which any San Francisco resident will tell you is not quite correct). Then, I went to grad school at MIT and had the great honor of working with the incredible, indescribable Angelika Amon, who instilled in me a love of meiosis and is probably the single person most responsible for my career trajectory. I next moved on to a postdoc position with Jonathan Weissman at UCSF, also an amazing mentor but in very different ways than Angelika. The idea that there

are many ways to do this job well is one that I really like about academia and one that I have interpreted to allow myself to focus on my strengths rather than trying to perfectly emulate giants like Angelika and Jonathan.

What motivated you to become a scientist?

G.B.: I was familiar with laboratory research from a young age because both my parents are biologists and worked the kind of non-standard hours typical of scientists. My dad worked at a plant biotech company and my mom worked as a senior researcher/lab manager at UW Madison. When they went into the lab on the weekends, my brother and I would often tag along and I remember it being so fun. In particular, I loved parafilm, watching the DNA loading



Elçin Ünal (left) and Gloria Brar (right)

dye sink into agarose gels, and drawing on whiteboards. And my parents really liked their jobs, which I think led me to believe that this was something I might like. They never pushed me (or my brother, Victor, now a physics professor at UW Madison) into science, though, and always just stressed that we should do something we loved. Getting into a lab and doing research myself was when I realized the problem-solving aspect of research science fit very well with my personality and interests.

Is there anyone in particular who helped guide you on your path?

G.B.: I've had the good fortune of having exclusively great mentors. I worked for a summer as a high school student in the lab of David Brow at UW Madison and as an undergraduate in the lab of Gary Firestone at UC Berkeley, both of whom were extremely supportive. In the Brow lab, I worked with a postdoc, Anisa Kaenjak Angeletti, and I'm still in awe that she agreed to mentor a high school student with zero skills or concept of what real research entailed. And what sticks with me was that she was really nice to me *and* gave me fun things to do! In Gary's lab, I worked with a PhD student, Hanh Nguyen, to whom I owe a huge debt of

gratitude. She was hard-working, smart, driven, fun, and had overcome a lot more than I had to get to the point of a PhD. Just watching how she did science was inspiring, but I was also touched by how much time she took out of her extremely busy schedule to help me learn techniques and understand the bigger picture. In many ways, Hanh is probably the one most responsible for leading me to grad school. Then once in graduate school, I rotated in the Amon lab with Andreas Hochwagen (now a professor at NYU), who inspired me based on his many interesting ideas and also his generosity of mentorship. As I mentioned above, Angelika and Jonathan made an enormous impact on my career and I wouldn't be where I am without their mentorship and support, but the day-to-day help and mentorship from lab members is often underappreciated (or perhaps underacknowledged) and I know it made a huge difference in my career.

Tell us about any barriers you faced in pursuing science as a career

G.B.: I've been very fortunate to have had few barriers and a lot of supportive mentors. I should say that from graduate school onward I did occasionally experi-

ence being underestimated based on my gender and possibly aspects of my appearance and mannerisms, but for many years I didn't see this as a negative. I actually thought it gave me a chance to really impress people, by working hard to far exceed their (sometimes) very low expectations. But as a PI, experiencing situations in which it is clear that someone thinks I don't know what I'm talking about is professionally problematic in ways I hadn't anticipated (but that seem obvious in retrospect). This can be disheartening at times, although it's rarely (if ever) an issue for me in our department, which has many outstanding female scientists who have paved this road for me and others, and are very generous with their time and advice.

Elçin, tell us about your journey and who helped you along the way

E.Ü.: I was born in Turkey, where I spent the first 22 years of my life across four different cities—Balıkesir, Zonguldak, Antalya, and Ankara—each beautiful in their own unique ways. Growing up, I've always been in awe of the living world. However, I didn't have the slightest clue that biology could be pursued as a profession until midway through high school, when an incredibly inspirational and supportive teacher, Mustafa Yildirim, encouraged me to apply to the Molecular Biology and Genetics Department at Bilkent University. Albeit very selective, the department didn't have a track record of graduates at the time since it was just established. So, this was a rather high-risk pursuit on my end but ended up being one of the best decisions I made in my life.

During my junior year at Bilkent, I applied for summer internships abroad with the hope of learning some bench skills and pursuing research for real rather than reading about it. I contacted ~100 PIs, composing individualized emails requesting to work in their labs. Only one of them, Dr. Gary Ostrander from Johns Hopkins University in Baltimore, wrote back and told me that I could work as a volunteer in his lab. Thanks to this opportunity and financial support from my father, I was able to work with Dr. Jeanette Rotchell, a postdoctoral fellow in the Ostrander lab. Jeanette was an exemplary mentor. She was very kind and patient with me but also extremely diligent

and tactfully assertive. I learned a lot of practical lab skills from this summer experience at Hopkins. Even though I was far from formulating my own scientific questions or hypotheses, I did realize that I loved working in the lab—it felt like I was in my element.

Thanks to the strong recommendation from Dr. Ostrander, I was accepted to Hopkins Biology Graduate Program the next year. Then came a second life-changing quest: moving across the Atlantic Ocean to Baltimore on my own and leaving all family behind. Here, I'd like to give a big shout-out to my mother for her reasoning, encouragement, confidence, and endless emotional support throughout the years, which undoubtedly helped me grow as a person and a scientist.

I started graduate school with very limited research experience but with lots of naive ambition, scientific hunger, and curiosity. At the end of the first year, I joined Dr. Doug Koshland's lab at the Carnegie Institution, which was affiliated with the Hopkins Graduate Program that I was part of. Doug was an amazing mentor; his genuine interest in science, unassuming personality, creativity, and ability to think outside the box generated a very dynamic lab environment. There, I studied the regulation and function of the cohesin complex, an essential structural component of eukaryotic chromosomes, during DNA damage response (in collaboration with Jim Haber's and Michael Lichten's labs). I also studied how the chromatin tethering activity of cohesin is regulated during the cell cycle and in response to DNA damage (in collaboration with Jill Heidinger, a graduate student in Doug's lab).

At Carnegie, I greatly benefited from a small, yet diverse and collaborative scientific environment. Carnegie training was particularly invaluable since both formal and casual scientific discussions were an inherent part of day-to-day life in the form of seminars, progress reports, journal clubs, and social hours. The institute-wide participation in these events was an integral part of the culture, and the resulting discussions were often confrontational, with a decent level of skepticism, yet they were extremely engaging, fun, and stimulating. What made these meetings so unique and successful was the

extensive fostering of communication among different labs and the small size of each research group, which served to maintain a close community. The Carnegie-style training and Doug's mentorship were instrumental in my scientific development.

My interest in chromosome structure led to a fascination with the process of meiosis, a unique cell division that exhibits specialized chromosome dynamics. In addition, I became interested in germ cells and quality control in the germline after attending several seminars and progress reports at Carnegie and Hopkins. I knew that I wanted to pursue my postdoctoral research addressing a fundamental question that brings together these components. At the same time, I did not want to leave budding yeast as a model system, since I liked its simplicity, speed, and tractability, as well as the ability to design sophisticated and well-controlled genetic experiments.

I was fortunate to meet Dr. Angelika Amon at a FASEB Meeting during my fourth year in grad school. I noticed her in the back of the room with her infamous loud whisper. I had no idea who she was until she took the stage and delivered a brilliant talk on causes and consequences of aneuploidy. After the session ended, I worked up the courage to ask her a few questions. To my surprise, she was extremely receptive and encouraging. At the end of the conversation, she said: "You should apply to my lab as a postdoc," and that was her first piece of great advice for me; many more would follow in years to come.

In Angelika's lab, I sought to investigate how meiosis (and its associated differentiation program) affects cellular fitness, in particular the question about whether resetting of lifespan occurs during meiosis. Furthermore, in collaboration with Matt Miller, a graduate student in the Amon Lab, I also studied a key regulatory event that is essential for meiotic chromosome segregation: temporal restriction of microtubule-kinetochore interactions.

Angelika set high standards; at the same time, she managed to build a community, a science family that was tightknit, supportive, and invested in one another. With each scientific problem that Angelika chose to study, she made

it clear, exciting, and accessible. Likewise, each person that Angelika recruited, she made sure that they were rigorously trained and well supported, even long after they left the lab. I feel incredibly fortunate to learn from the many facets of her exceptional leadership and to be a member of her science family.

How and why did you come to run a joint lab? How did you first meet?

E.Ü.: I first met Gloria at a HHMI meeting in Janelia Farm about fourteen years ago. At the time, we were both senior graduate students. I was potentially interested in working in Angelika's lab as a postdoc, but meeting with Gloria and observing her rapport with Angelika really helped solidify my decision to pursue the Amon lab more seriously. From that first meeting, I also recall Gloria as being extremely quick-witted, yet she did not come off as arrogant. On the contrary, she was very down to earth, funny, and interesting to talk to. In Angelika's lab, we overlapped for only about nine months but kept in contact after she started her postdoc in Jonathan Weissman's lab at UCSF. She also visited Cambridge about once a month since she had a collaborator at the Broad Institute. Through these visits and other social and scientific interactions, we became very close friends (I consider her as part of my immediate family) and scientific partners over the years.

G.B.: I was in my last year of my PhD in the Amon lab and Elçin interviewed for a postdoc there (and ultimately joined). I already knew of her and her work from papers and conferences so I knew she was intellectually impressive, but I also remember being blown away by how kind and fun she was, which I hadn't expected. We became friends quickly and kept in touch when I went to UCSF. We even found an excuse to collaborate and then at some point it became clear that we would be on the academic job market at the same time. My first thought was "Damn, there goes my chance of getting a job!" but Elçin, the idealist, had a very different reaction and proposed the team lab idea. I loved the *idea* but was highly, highly skeptical that any department would get on board with it. But as is often true, Elçin was right. Thank goodness.

E.Ü.: The idea of a team-based lab environment initially came about while I

was a postdoc at MIT, through various conversations I had with members of the Amon lab, in particular Leon Chan, Matt Miller, Jeremy Rock, and Gloria, whenever she visited. The original concept, Group Lab, was far more ambitious and not quite realistic, since there was and still is neither an academic structure nor a funding system to support its establishment and sustainability. Nevertheless, it has been so much fun to dream about, and it has certainly helped Gloria and I formulate a more feasible plan to launch our joint lab (The Br-Ün Lab). Our overall philosophy of research and mentorship is still in alignment with the original founding principles of the Group Lab, but we now have a more practical version of it.

Personally, here are my top three reasons as to why I value a joint lab. First, I very much enjoy the collaborative aspect of research as I truly believe that science is best performed when bright and like-minded people with different expertise, complementary skillsets, and personalities join forces. Second, such synergy not only enhances the quality and rigor of research but also allows for the expansion of scientific ideas and projects as communications become more seamless. Finally, such space provides an ideal training environment for the next generation of scientists and a more fail-safe approach to mentorship.

Where is the lab based? How long have you been there? Can you tell us about the application process for becoming independent and setting up the lab together?

E.Ü.: Our lab is located at UC Berkeley in the Department of Molecular and Cell Biology. We officially started in January 2014, though I moved to the Bay Area in October 2013 to help Gloria with the lab setup and oversee renovations. Before going on this journey, we consulted with our PhD and postdoc advisors, as well as some other faculty at MIT. There were varying views in terms of risk versus feasibility, but overall people were highly supportive about the idea of a joint and collaborative lab. Gloria and I had a shared document, where we kept track of all our applications and progress, and often communicated with one another for updates. We went through the initial application process independently, but

once we started hearing back from the same schools about second visits, we introduced the joint lab idea and informed the departments about our unconventional “two-body” situation. In the end, we had a handful of joint offers and some individual ones, but Cal MCB was the clear winner.

For me, it was love at first sight (I’m sure Gloria has her own story to tell). Berkeley was the last school that I visited during my job interviews in 2013. From the moment that I stepped into Cal territory, it was very different than any other place that I interviewed before: the campus was huge, but at the same time felt very vibrant and welcoming. The department was the largest that I have seen thus far, with more than 80 faculty. Instead of feeling intimidated and tired, I was completely energized and inspired at the end of my two-day visit. I knew then that this was the place I would love to be a part of and set up our joint lab. And I feel extremely fortunate that it turned into reality. Thanks to Berkeley MCB for making our dream turn into reality!

G.B.: This is a common (great) question we often get and it doesn’t have an entirely satisfying answer, I fear. Basically, we applied and interviewed separately and just kind of let the gossip get around (as it does in academia) that this was something that was of interest to us. We did eventually both push for it, once it was clear that we wouldn’t lose all chances of employment if we did, but I often think that we mainly got really lucky in how it all worked out. I like to say that if you ran that simulation 100 times, I think 99 of those go the other way. It is worth noting, though, that my fear of letting this idea out there early on was pretty misplaced. Almost everyone we talked to about it was really supportive and most said something along the lines of “Cool, I wish I’d done that!”

Tell us about the research in each of your labs. Is it completely overlapping? What drew you to this area of research?

G.B.: It’s not totally overlapping but there are some very common themes. We are both interested in meiosis and, more generally, the forces that shape a differentiating cell. My primary interest is in gene expression and the mechanisms that

allow the exquisite coordination that we see during meiotic differentiation. Essentially every protein encoded by the yeast genome is made just for the window of time that it functions during meiosis, which requires an enormous amount of regulation at every known level and also involves new types of regulation that haven’t yet been uncovered. We want to know how this occurs and what it can tell us about the set of protein functions that are important in meiosis. I have loved meiosis since I was a grad student and I realized how many amazing things happen in a meiotic cell that we don’t understand. Here is an ancient differentiation program that is so important to organismal fitness and survival and yet we know so little about how it works. A big bonus is that the community of people who study meiosis are interesting, generous, and supportive, and this makes it all the more fun to study. In the case of gene expression, I became especially interested in this as a postdoc. I was fortunate to be in the Weissman lab when Nick Ingolia was also a postdoc there and saw first-hand the influence that his development of ribosome profiling had on the gene expression field. Suddenly, we could confirm long-held models based on detailed study of only a few genes. And at the same time, there were so many big surprises, including a lot of regulation that didn’t fit long-held models. I think it is an especially exciting time to dive into gene expression studies, starting with some of these big surprises that have led to big, interesting questions.

E.Ü.: Gloria’s and my research interests are mostly in alignment, with the overarching goal of understanding the regulatory and functional principles of meiotic cell differentiation. On the other hand, the individual projects in the lab themselves are generally non-overlapping, but rather complementary. That said, we have had successful collaborations previously (for instance on LUT1-based gene regulation) and I hope to be a part of many more in years to come!

In terms of research, my trainees primarily focus on cellular rejuvenation, organelle remodeling, and gene regulation aspects of meiosis. Because meiotic differentiation contains endogenous pathways that prevent age-associated damage from being passed onto progeny,

we think that a deeper *and* broader understanding of this program offers unique insights into the biology of aging as well as potential therapeutic avenues to combat age-associated diseases including cancer and neurodegeneration. Accordingly, the big question emerges as follows: how is the fitness of gametes ensured during their production such that they contain the appropriate nuclear and cytoplasmic content to make healthy progeny? We address this question in two frameworks: first, in the context of gene regulation, with the aim of understanding how the essential meiotic processes that ultimately drive cellular rejuvenation are controlled by the meiotic transcriptional program. Second, we study meiotic differentiation in the context of aging, with the aim of understanding how gamete formation promotes cellular rejuvenation and how meiotic cells ensure that age-associated damage such as protein aggregates and dysfunctional organelles are prevented from being transmitted to subsequent progeny. We further extend our studies to multicellular and human cell line systems, whenever possible, with an eye on therapeutic potential of our findings.

How has running the lab together influenced your research and the directions each of your work has taken?

G.B.: I can't say for sure since there's (thankfully) no proper control, but many points of synergy have emerged at every stage thus far. It's very clear to me that I have benefited repeatedly from watching the way that Elçin thinks about and tackles scientific problems, which is very different than my style. I don't want to steal Elçin's line here, but she likes to say that we are a nice case of complementation and I have always loved this way of thinking about it.

E.Ü.: It has certainly helped me expand my research program and be creative in ways that I have not anticipated previously. Furthermore, it has cultivated a certain level of courage and confidence in me for going after questions that extend well beyond my expertise. I have a natural inclination to follow where science leads, but with the joint lab setup, more of such projects have turned into success and joyous discov-

eries. Overall, it has been a truly net positive experience.

How does running your joint lab work logistically? What is divided and what is shared? How do you navigate this?

E.Ü.: In terms of personnel, we have a shared lab manager and lab helper, who aid with organizational matters, and make lab function daily through reagent ordering, media prep, equipment maintenance, etc. This year, Gloria and I have also recruited our first joint student, who will be working on a new collaborative research project that we are all super excited about.

Most of our large equipment, consumables, and reagents are shared and things run overall smoothly in the lab, thanks to our wonderful lab manager, Christiane, and many fantastic trainees who help with the lab chores.

We hold joint group meetings and social activities and often synchronize in terms of departmental retreats, supergroups, and conferences. Unfortunately, it has been a long time since we had an in-person event for such events due to the pandemic, so all of us are looking forward to revamping our scientific and social interactions as the UC campus opens in the fall semester.

What are the pros and cons of running the lab together? What are the important personality traits that allow you to work well together?

G.B.: Some major pros are the complementarity of our perspectives, the ability to have a group that studies diverse topics but doesn't feel too big, the ability to make hard decisions together, and the improved training that I think we can provide. For the latter point, I think that our trainees appreciate having PIs with different strengths who can offer different viewpoints on projects and data. One minor con is that having to make so many decisions together can occasionally be logistically complicated, in the case of lab meeting scheduling, for example. And another occasional con is the issue of imbalance. For example, it took me longer to publish our first paper than it did for Elçin. This was intensely stressful for me and made me feel like I was failing, much more so than if I'd been running

a lab alone. Although I think we all know that comparing ourselves to others isn't constructive, it's hard to avoid completely, and our parallel careers make for many chances for us to each to have this type of situation arise in grant scores, awards, etc. On the other hand, having a close and supportive friend in the neighboring office is also immensely helpful in almost all circumstances, including these types of frustrations.

E.Ü.: The biggest pros for me are covering my blind spots, since Gloria and I have very different personalities, and apply complementary approaches to solve biological problems. I see this aspect as a huge positive beyond scientific prosperity, because it allows me to learn different perspectives and viewpoints, thereby becoming more flexible and open-minded. I would like to think that my emotional intelligence has improved considerably since starting the joint lab, and that I have learned to become a better mentor. It's of course a continuous learning process.

I do value Gloria's input on various matters, from little to big decisions. I do find these decisions to be more balanced than the ones I make on my own. Even the occasional disagreements we have ultimately become valuable learning experiences for me. In addition, Gloria certainly provides a level of stability since everyone else in the lab, with the exception of Christiane, are with us for a maximum of 5–6-year period. Finally, having a scientific partner who is constantly supportive goes a long way!

One aspect of our partnership that I am still tinkering is how to integrate the differences in our scientific communication styles into productive conversations with all our trainees. Based on my upbringing, and the environments I was trained in, including Carnegie and the Amon lab, I have come to develop a constructive, yet rather confrontational questioning style, which I realize can sometimes be taken personally and internalized, rather than being perceived as a beneficial input. This is not necessarily a con per se, but more so an issue that we might not have thought about if we were working individually and one that gives us an opportunity to find a way to best motivate our lab members and make sure they feel comfortable with embracing different

styles of communication, which I think is ultimately important for a rigorous training.

What do you look for when you hire students and postdocs?

G.B.: I think every case is a bit different and I usually just first look for someone that I enjoy talking about science with. As a scientist, it's always especially great when someone is curious and likes to ask questions. Beyond that, I think a general trend among our group members is enthusiasm, interest in solving fundamental biological puzzles, and interest in working within a collaborative group.

E.Ü.: The primary things I look for in a trainee are genuine curiosity, self-motivation, perseverance, and attention to detail. I've found these personality features to be strongly correlated with long term happiness in my lab. It's also important to me that the trainee is a compassionate human being and has a functional working relationship with other members of the lab. Finally, trust forms the core principle in all my mentor-mentee relationships, though it does take a longer time to establish it, especially from the trainee end. I do very much like it when my trainees start to challenge me scientifically; I take this as a sign for their growing skepticism and self-confidence, which I find to be crucial aspects for an independent scientist.

What kind of environment do you look to foster in the lab? Is there anything you try to replicate or avoid from your own experiences or that you have learned over the years?

G.B.: First and foremost, we want people in our group to be supported, helpful and respectful. No matter how smart a lab member is, if they treat others poorly, this can be toxic and we do not want that. I think that we both loved the degree of organization in the Amon lab and so have tried to incorporate that here, as well, with databases of just about everything, which make everyone's life easier. As far as training atmosphere, I care a lot about fostering excitement in small and big aspects of projects. Basically, I think that despite inevitable small failures and frustrations, science should be fun. I also care about helping trainees identify

and leverage their strengths, while helping them improve areas that they don't view as strengths. Oftentimes, young scientists believe that they have to fit some theoretical mold to be successful, but I think that success and happiness in science come from each person finding a combination of training and project that fit their personality and goals.

E.Ü.: A healthy mix of welcoming, yet rigorous, training environment is something I strive to provide. In this regard, inclusivity and belonging are very important to me, but I also like to train my mentees such that they become open-minded, skeptical, and highly receptive to criticism. After all, what would science be without the critical lens?

Aside from supervising their research, how do you help to develop and mentor your students and postdocs as scientists?

G.B.: This is something that we try to tailor to each lab member and so the most important thing is to find out what each person wants to get out of their time in the lab and then for us to work hard to help them achieve this. In my regular meetings with trainees, we discuss experiments, data, and next directions, as well as anything else they are interested in talking about, including short and long-term goals. These types of goals vary a lot among lab members but may include, for example, computational training, undergraduate mentoring, or more writing experience. One thing that I encourage for everyone, regardless of their stated goals, however, is conference attendance and presentation. I think conferences, especially small ones, are such a great way to get to know a field, including the personalities and the latest ideas that haven't yet made it to publication. And this is also a great way for leaders in the field to get to know up-and-coming members. The loss of these in-person experiences has been one of many difficult aspects of the last year and a half, but I'm so glad that it looks like they'll be back in the next year.

E.Ü.: I cater a mentoring approach suited for different personality types and learning styles. Furthermore, since deep and broad thinking skills together are necessary for scientific success, I encourage my trainees to become profi-

cient in both. I meet with my trainees on a weekly or bimonthly basis where we discuss the current progress of their projects. I provide critique, assist with troubleshooting and make sure to connect them to the right person if I cannot be of assistance. As part of these meetings, we also discuss career directions and steps they can take to pursue these goals. I provide my students with information regarding professional matters such as public speaking, manuscript preparation, grant writing, interactions with fellow scientists and preparations and strategies for job interviews. I encourage my trainees to write their own manuscripts and review the manuscripts of their fellow lab mates, as both are invaluable parts of their scientific training. In preparation for their future careers in research, education or elsewhere, I encourage my trainees to be mentors for undergraduates. This experience not only prepares them to be successful teachers, but it also improves their communication skills. I support my trainees in these endeavors by providing advice on how to properly mentor their undergraduate mentees, technicians, and rotation students. Thus far, this strategy has worked extremely well for my lab as it has created an effective training culture that is self-perpetuating. Finally, I encourage my trainees to participate in activities outside the lab for outreach and for opportunities that foster their career trajectories as well as for maintaining a balanced lifestyle and good mental health.

So how do you adapt your mentoring style to different people?

G.B.: This is really important and mostly a process of adaptation over time for me. I do always try to ask new lab members what works for them in terms of mentorship, but I think that often people don't know exactly what works (and what doesn't) early on and so I try to be explicit that we can start with a default plan and adjust at any time according to what is working (or not). The initial default is to meet weekly and for me to be fairly involved early on, but meetings can be moved to less frequent (or lab members can pop by my office any time), and I follow their lead in the detail with which they want to discuss experiments in these meetings. This same principle applies to other aspects of mentorship, and our

department now has regular IDPs (individual development plans), which are helpful in starting conversations about topics that might not otherwise come up organically, like new skillsets that a student would like to gain in a given year. I think the key idea that isn't always clear to trainees is that what's best for them is generally best for me too. The most important thing is for trainees to feel comfortable talking to their PI about issues of importance to them, and I strive to foster an environment in which this is true.

Does mentoring end when a student leaves the lab? How do you maintain your relationships with your students and postdocs after they have left?

E.Ü.: Of course not! I keep in touch with my trainees long after they leave the lab. Once you're a member of the Br-Ün lab, you'll always be a part of the team, even if you're no longer working in the lab. I communicate with my trainees via email, phone, and Zoom as well as in-person visits to lab or lab socials. We also have an alumni channel on Slack to keep in touch with previous lab members. Considering past and current, we have worked with an amazing group of trainees, who are not only passionate about their science but are also highly collaborative and supportive of each other. We feel extremely fortunate to be scientific coaches for such a team!

G.B.: Absolutely not! In fact, I was still getting reference letters from my graduate PI (and a thesis committee member) a few years into my faculty position and so I know first-hand how critical this extended support is. Lab members come to feel like family and so aside from wanting to support their careers, I want to hear from them, to know that they are happy and to hear life updates. There's no particular structure to maintain these relationships for me, it's mostly through email check-ins, but now I'm wondering what other types of structures exist and how we can implement them!?

How do you juggle all of your responsibilities? How has running the lab together helped?

G.B.: These are great questions. I guess the short answer is that the juggling is

hard and having Elçin as a team member has helped me immensely. The long answer is that I have come to believe that perhaps thinking of it as juggling is problematic and instead I think it's useful to accept early on that it is not humanly possible to do everything that you want to do as a PI and do it well. So, I would instead advocate for thinking about what is most important to you (and/or what makes you the happiest) and putting your energy into doing that set of things very well. This will likely mean that you may feel like you are failing at other things—for example, perhaps you can't write all the review papers you'd like to or help out on as many commitments—but the hope is that you will feel more satisfaction in general at the things you are succeeding at than if you tried to tackle everything full-force. I am now a parent to two toddlers and this idea keeps resonating with me more and more, since in that capacity I am also making decisions that would have seemed unthinkable in my previous life, like "Should I wear this shirt with spit up on it or change and show up to the meeting late?" With managing work and home stuff, working as a team with Elçin has become essential to me. Often, it is because she is so helpful and supportive in practical ways, but it is also just great to talk through challenging decisions with her since some of the hardest responsibility juggling is really about decision-making.

E.Ü.: Running a joint lab certainly helps with shared responsibilities. However, I have additional responsibilities in the department, and at times, these become a major focus and require a relatively high effort and time commitment. If only I had the luxury of doing these additional tasks in a joint setup...

What advice would you give young scientists looking to set up their own labs? And how would you recommend finding a scientific partner? What is important to consider?

G.B.: Most importantly, you have to like and respect each other. My husband refers to Elçin as my work spouse and this is really true—we make many trivial and important decisions together, we sometimes disagree on trivial and important

things, there's often an asymmetry in responsibility, and there are just many chances for conflict. It's hard to know the challenges that each of you individually will face in this job and then those unexpected challenges usually have to be managed together. So, if you don't really like and respect each other, I'm not sure the advantages would outweigh the disadvantages. Luckily, that's not an issue in our case!

Looking back, what advice would you have given yourself at the start of your career? Is there anything you would have done differently?

G.B.: Well, I think I got extraordinarily lucky to be here so I'm not sure I'd really change anything in my choices, but I don't think I realized at the time how important my choices of mentors were. I did agonize over these decisions, but I don't think I was necessarily considering the most important factors and may have just been fortunate that I made great choices through a flawed process. When I advise others now on lab choice, I say that the most important thing is that you like your mentors. There will be ups and downs and scientific and personal challenges and you need to find someone that you can communicate with and who will support you. Of course, you have to like the science, but there is so much cool science out there and it's possible (perhaps necessary) to find a situation that will give you both a great mentor and a cool project. I think that choosing a lab solely based on one scientific project of interest, which is common, is often a mistake.

The one piece of advice that I have continually given myself since I was in grad school is: "Relax, it will be okay." This job, and academia in general, involves a lot of deadlines and faux crises and it's helpful to be able to step back to ask yourself whether the current one will really seem that important a year from now. It doesn't mean that you don't take it seriously if the answer is "no," but maybe just don't lose sleep over it.

What's next for the Brar and Ünal labs?

E.Ü.: Well, I'm super excited to be able to go back to in person group meetings

soon!! It's been difficult to cope with the pandemic-induced isolation, while trying to stay engaged from a distance. I'm also excited that the campus is opening soon as I can't wait to give lectures in classroom and start going to seminars in person. Pretty much everything that I took for granted prior to the pandemic, I now have a huge appreciation for. Gloria and I are also embarking on a new project

that investigates the role of stress response transcription factors in meiotic rejuvenation. I look forward to seeing what the future holds for this as well as other projects in the lab.

G.B.: So many cool projects! We are now working together on a project examining the roles of stress-responsive pathways on the natural rejuvenation that accompanies meiosis, which I'm really

excited about for many reasons, including that it merges our interests in a new way. I'm also very excited about investigating the protein degradation mechanisms that act on almost every protein expressed in meiosis, and the remodeling of protein complexes that we see occurring naturally as part of the meiotic differentiation program. I could go on and on...

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