THE JOURNEY
One student relates climbing Half Dome to the graduate school experience

WHAT CAN YOU BE WITH A PHD
Rethinking alternative careers

WRITE ON
Graduate school teaches us to think, but we should learn to write too
One of the most popular aspects of our graduate school training is our Open Program. While many students enter graduate school with a specialty in mind – often based on their research experience – the advantage of an Open Program is that students are allowed (and here, encouraged) to explore other fields. For example, in our program, 1st year students wait to select a training discipline, or track, until they have taken several courses, completed two or three laboratory rotations, and selected a faculty mentor for their PhD thesis work. They have a full year to make final decisions.

In the past year, Sackler has expanded its scope, incorporating new training tracks of Biomaterials Science, Biostatistics, and Epidemiology. As we recruit students interested in these new training tracks, we are faced with balancing the unique background of each student with the spirit of the Open Program. Specifically, how can the curriculum of an Open Program satisfy students with varying interests and backgrounds? For example, a student may have a Master’s in mathematics but minimal familiarity with molecular biology. Another may have worked as a technician for several years with only some experience reading primary literature.

To address this challenge, we require all incoming students to take Introduction to Research, which starts immediately after Orientation with an immersive lab experience called Research Adventure. The six-week course was developed to introduce students to molecular biology topics. Since we have expanded our training scope, we will begin to incorporate other disciplines to be inclusive of all students. The Introduction to Research course is intended to not only help incoming students begin graduate school with the same basic knowledge, but to also provide them with a sense of community, as this is the only time when the entire class is together. The course begins with the popular Research Adventure week followed by paper discussions, and lectures. The Research Adventure is an intensive, hands-on research experience, where students perform a structured project in a faculty’s lab, preferably in a topic different from their previous research. This exposes them to new possibilities that perhaps they may not have considered. For example, someone with a background in developmental biology could be in a computational biology laboratory for the first time!

We are continuing to figure out best practices to keep the spirit of the Open Program alive while accommodating the different interests and backgrounds of our students. This past year, we began offering two optional non-credit courses for incoming students – one provides background to those who may not have had courses in biological sciences and the second provides additional tutelage to those who may benefit from a refresher course. Both are meant to assist students who may feel they need additional preparation for graduate school coursework. Both courses received positive reviews.

As always, we look to our current and prospective students for feedback and suggestions!

Naoko & Susanne
You can find Dr. Naoko Tanese in the Skirball 3rd Floor Administration area

The rest of the Sackler Administration can be found in MSB 228
Hey Sackler!

We hope everyone is coming back full of energy and excited to start the New Year with us! We had such a great time these last six months on student council and we are looking forward to many more fun activities and social outreach for the rest of our term! We started out this year with our traditional orientation week with activities such as the boat cruise, barbeque dinner, games night and a mix and move to end the week! In October, students were able to show us their artistic prowess through pumpkin carving and a costume party where everyone danced the night away. We continued our bi-weekly happy hours and in an effort to give Sackler student clubs more exposure, we have been showcasing their initiatives – if your club wants to participate, please let us know!

We are looking forward to meeting prospective graduate students and sharing with them what makes Sackler such a great program – the groundbreaking research, friendly administration and the active student population. Stop by the happy hours on Fridays at Albion to meet these amazing students and keep an eye out for our emails for more ways to get involved. This spring, we will bring back our usual happy hours in addition to the annual spring formal, a baseball game, and brewery tour. We plan on creating and participating in more community outreach activities this spring – please let us know if you have any ideas for volunteering! If you have ideas for any events, or general comments and questions, feel free to contact any of us at any time. Your class liaisons are also available to bring any questions you may have to us. Thank you for a great couple of months. Without your support, Sackler wouldn't be the same!

We are looking forward to a spectacular year!

SSC

2017-2108
Instantly, water filled my eyes. I had just conquered my 22-year-long goal on my bucket list – hiking Half Dome. This milestone in my life coincidentally occurred while I was crossing off another item on my bucket list – getting my PhD in Developmental Genetics. Surprisingly, these two journeys had more in common than I thought. But I’ll get to that later.

Half Dome is the most iconic attraction in California’s Yosemite National Park. The strenuous, yet gorgeous, hike to Half Dome is 19 miles long round-trip, and it took my friends and me a total of 14 hours to complete. It would not be wise to underprepare for this hike. There is an overall elevation gain of approximately 4,800 feet along the trail, and this hike is by far the most physically demanding and most dangerous day hike in Yosemite.

I completed the first third of this hike with my dad when I was 6-years-old. Ever since that day, reaching the top of Half Dome was the number one dream on my bucket list. This was no easy feat though. To even begin to contemplate hiking Half Dome I needed to win the lottery for the permits. The actual cables on this granite rock are dangerous and several deaths have occurred, so the park regulates the number of people allowed to climb the rock each day. Every year, for the past 4 years, I entered my name in the lottery. I will never forget the day that I sat down at the computer and opened my email. The word “Congratulations!” was all I needed to see before my heart felt like it was going to pop out of my chest. I won! I was finally going to hike Half Dome.

I had three months to train for this hike. Lucky for me, I chose NYU School of Medicine for grad school, so my training options were endless. A short 1.5-hour ride on the Metro-North Railroad takes you right up into areas with gorgeous hiking paths and scenic views. Several of my friends joined me since the tree leaves were turning colors and the Hudson River was full of life. I slowly broke in my brand new hiking boots, for which my feet later thanked me. And, I filled my pack with four liters of water and lots of food to mimic the actual day.

Before the hike, I flew home to California, spent the night at my parent’s house, then got in the car with my friends and began the five-hour drive to Yosemite National Park. We stayed at Half Dome Village, which is as close to the start of the trail as you can get. At this point, my nerves kicked in. I was constantly checking the weather. If there is rain in the forecast, which there was, you are not allowed to climb the cables up the rock because it gets slippery. The park also worries about lightning since it is the tallest rock in a wide-open area.

We wanted to start the hike early so we could ascend the rock before noon, which is the most common time for storms to begin. I didn’t come all this way, and wait all these years, to get turned away because of rain. My alarm went off at 3:30 in the morning, and I
Back in 1995, Chelsea did the first part of the Half Dome hike with her dad at the age of 6. This was the day that hiking Half Dome was added to her bucket list.

The hike leading up to the enormous rock was stunning. We began the hike under the stars at 4:00 in the morning. In the distance, we could hear the roar of Vernal Fall, which was signaling the sun to wake up. For a few hours, it felt like we were the only people in the world. We were secluded in the middle of nature—all alone with our thoughts. A couple of miles into the hike our heavy hiking packs reminded us that this was going to be hard work. Through exhaustion, sweat, and sore feet, we finally made it to the base of Half Dome by 10:00 in the morning. The sun was shining and a cloud couldn’t be found in the sky. The relief lasted a few minutes, but then I saw the cables going straight up that rock. Relief quickly turned into fear as a pit was building up in my stomach.

The journey up the cables of Half Dome is hard to put into words. It was the scariest thing (next to my qualifying exam) I have done in my entire life. There is a wooden plank about every 10 feet and two giant metal cables going up the rock. There is one path to ascend, and this same path to descend. You are not hooked in. If you fall, you fall to your death. Keep in mind that breathing becomes more difficult as well due to the high elevation. You are carrying a heavy pack on your back for miles. Your feet are already tired from hiking uphill for hours, but now you are about to demand more from them. As I looked up at the cables, my palms began to sweat. I was convinced that this path reached an angle of 90 degrees. (Of course this was not reality, but my eyes were telling me otherwise.) I slowly lead the group—up, up, and up. I was keeping my eyes on the prize and reminding myself that this would make my 6-year-old self so proud.

With one last step, I did it! I reached the top of Half Dome. My hands were shaking as tears streamed down my face. I quickly forced myself from getting too emotional, as it made it even more difficult to breathe. Crisp, fresh air filled my lungs as I took in the breathtaking view. What an accomplishment!

This entire achievement made me realize how similar this experience was to grad school.

Applying to the Half Dome lottery was like applying to grad school and patiently awaiting the response. Getting into grad school felt like winning a lottery because we are all competing with brilliant people for a limited number of spots. Equivalent to planning the 14-hour hiking day, I had to prepare to move across the country for grad school. You have to make sure you are ready to begin a long, yet rewarding, journey. Your first year of grad school is like the hike leading up to the base of Half Dome. You are taking classes and doing rotations as you navigate yourself to your goal—joining your thesis lab. The largest hurdle to face in order to continue on your journey is passing your qualifying exam at the end of your second year. My qualifying exam was the Half Dome cables. It is intimidating and requires focus, but once you complete it you feel as if you were on top of the world.

Getting to that point is far from the end though. You still have to save enough energy for the rest of your trek back home. The end may not be in sight, but you just conquered a major hurdle on your journey.

The next couple of years of grad school are all about staying motivated, collecting data, and creating a story from your experiments. This is similar to heading back down the cables and the rest of the journey back home. You proved to yourself that you can do it, but you need to stay on track and motivate yourself to the end. Currently, as a fifth year, I have learned to make the most of my time while navigating through this journey of grad school. There will be several bumps in the road, like getting drenched by waterfalls or blisters on your heels, but once you make it to the end, you are rewarded with something that not many people are capable of achieving—your PhD.

It is a lot of work. It is daunting at times. But getting to the end of your PhD is like conquering a mountain.

“So many of our dreams at first seem impossible, then they seem improbable, and then, when we summon the will, they soon become inevitable.” – Christopher Reeve

Chelsea Maniscalco is a 5th year PhD candidate in Jeremy Nance’s lab studying primordial germ cell morphogenesis in the C. elegans embryo. She is originally from Northern California, but decided to move to New York City for grad school to explore the opposite coast. When not in lab, you can find her going on adventures and crossing things off her bucket list.
RESEARCH AT WORK

Evelyn Litwinoff, a recent Sackler graduate, sat down with me to discuss her paper, graduate student struggles, and her new career path

By Kristen D’Elia

With record numbers of Americans qualifying as obese, the problems that come with this diagnosis, such as diabetes, heart disease, and cancer, are on the incline. Interestingly, some of America’s obese population is considered “metabolically healthy” and do not develop these issues. While obesity is normally accompanied by inflammation in fat tissue, the “metabolically healthy” part of the population may be protected because they do not develop inflammation.

About five years ago, when Evelyn Litwinoff joined Dr. Ann Marie Schmidt’s lab at NYU Langone, she set out to investigate if a broken recycling system, autophagy, was at the root of this inflammation in obesity.

“When we talk about inflammation in fat, it is not like what you think of when you get a red, swollen welt on the bottom of your foot after you step on a rusty pin. Inflammation is simply the influx of immune cells.

In obesity, fat cells reach their breaking point and can no longer hold additional lipids. The lipids start floating around which is toxic to the body. Immune cells are then thought to come rushing in because they think there is a pathogen. The immune cells sense something is wrong since these lipids can’t be contained.

Since autophagy is like a recycling system that degrades things, many in the field thought the inflammation might result from an impairment in the degradation of these lipids.”

Evelyn looked to a mouse model with a mutation in an autophagy related gene, ATG16L1. She fed these mice low and high fat diets for 3 months and assessed changes in a number of parameters related to obesity, diabetes, and inflammation. These results were published in Obesity Research and Clinical Practice in November.

The ATG16L1 mutant mice, when compared to their normal siblings, had no differences in body mass, glucose sensitivity, insulin sensitivity, food consumption, fat mass, lean mass, macrophage lipid content, or adipose tissue inflammation when on either diet.

“Long story short, there is no connection between autophagy and obesity... This paper supports the current state of the field. It is another piece of evidence we can put in our pockets to say autophagy doesn’t make a difference in these cells and we should not pursue it as a therapeutic option.”

While it seems evident that autophagy is not involved in this process, Evelyn shared that clinicians should become more aware about the inflammation that comes along with obesity.

“Basic researchers are increasingly interested in inflammation in obesity, but when you move into the clinic no one is talking about it...  When clinicians think about inflammation and macrophages they think about infection, but it is not the same thing in obesity because this inflammation is low grade and chronic.

Addressing low grade inflammation in humans is largely overlooked therapeutically because I don’t think we yet understand what the inflammation is doing and how is it causing insulin resistance.”

Evelyn explained that over the course of her PhD, several papers came out also investigating the connection between autophagy and obesity. These studies use mouse models with deletions of other autophagy related genes, such as ATG5 and ATG7. The conflicting evidence seemed dependent on the obesity model used between studies. Now, the field generally supports the idea that autophagy dysfunction is not involved in the inflammatory process in obesity, but Evelyn went on to say how she still felt her results should still be published.

“We thought there was still a place for this paper because ATG16L1 has a separate connection to inflammation in addition to its role in autophagy. It is known to play an active role in Crohn’s Disease [an autoimmune inflammatory bowel disease that reduces productivity and quality of life in over 750,000 Americans], so I could reshape my paper and still get it out there.”

Hearing how quickly an interesting question in the field can be answered strikes fear in every graduate student’s mind. Another graduate student nightmare could be found in Evelyn’s piles and piles of negative data from the first two years of her thesis work. I asked her if this was disheartening, and she had some advice for grad students facing the same dilemma.

“I was certainly disappointed. Most of my PhD was ‘there’s no difference, there’s no
difference, there’s no difference. For the first two years after qualifying exams, it was frustration because I thought, ‘How am I supposed to finish if I can’t show anything?’ Some point in my 4th year, I realized negative results are important and should be published. I think grad students, especially, should be encouraged to publish them because you are getting your footing in this time and you are still understanding how the lab works. You always hear this story about the hard working (and also lucky) grad student who discovered this amazing thing that led to Nobel Prize work, but you can also put hard work in and get negative results. You should be able to show that to the field.”

Evelyn went on to tell me she actually worked on two projects during her PhD: one that was completed and published demonstrating there was no difference and a second that started getting really interesting positive results just this past year. She wasn’t able to finish fleshing out this new story before she defended, but has handed the project off to another lab member.

“I don’t regret putting effort into getting those negative results. I couldn’t do any of the methods I used to collect this recent interesting data had I not learned the techniques in my initial project.

One of my biggest pieces of advice: you will get negative results, don’t get discouraged by them. Look at all the work that you did to get those results and just publish them, even if it is a paper in a tiny journal. Show the world what you did!”

Even faced with loads of negative data and a field that changed quickly during her PhD, Evelyn was able to successfully publish, defend, and find a job within the last year. She will be starting work at a medical communications company in early 2018. She described her new position.

“I will be helping pharmaceutical companies do a variety of different communications jobs. The company calls it ‘science storytelling.’ It involves things like making slides for them to present their research at conferences, helping them get drugs approved by the FDA, and talking to doctors to find out what they need for their patients and communicating it to the companies.”

Evelyn joked about getting used to the new acronyms outside of academia– where PI now means ‘package insert.’ She also explained how she felt a job in communications was more fulfilling for her than a continued research position.

“I always enjoyed talking about science and how my results fit into the field much more than pipetting. I did love bench work when I first started and I still think it is still cool when learning a new technique, but it can get monotonous fast. When I was writing my dissertation, I enjoyed writing the introduction and discussion more than the results– which is backwards for a lot of people.”

I want to sincerely thank Evelyn for taking the time to discuss her research with me. Here at the Messenger, we have no doubt she will thrive in her new position since she always wonderfully communicated the science here at NYU with her own “Research at Work” pieces over the years. Congratulations and good luck, Evelyn!”

Evelyn will be trading in her masks and pipettes for business attire for her new career in medical communications.

Evelyn and her lab mates pose in their dissection attire.

Evelyn and labmate, Julia Derk, seem to take pipetting very seriously.

Kris ten D’Elia is a 3rd year PhD student in the labs of Jeremy Dasen and David Schoppik studying neural circuit properties of vertebrate locomotion. Outside of the lab, she loves photo documenting her adventures around and outside NYC and is on an infinite quest to find the next best dessert.
Rethinking "alternative careers"

By Alla Peselis

Early this past November, over 1,500 academics, including graduate students, post-docs, and faculty members, came together at NYU Langone for the bi-annual largest PhD career symposium in the country. What Can You Be with a PhD (WCUB) conference, a two-day symposium held in the (usually) spacious Farkas Breezeway, was organized by the NYU School of Medicine Postdoctoral Affairs office. Additionally, a consortium of 14 other universities and research institutions from around the New York City metropolitan area supported the gathering.

It is not surprising that this conference, mostly geared towards scientists but welcoming to academics in other disciplines, has reached such high attendance. WCUB featured 23 different career path sessions with over 90 speakers and panelists in six workshops ranging from hints on improving your CV and resume when first searching for a job to negotiating your salary package once offered. There was also a “Schmooze or Lose” workshop, where you could practice business etiquette and networking skills.

While there were some panels featuring careers in academia such as “Careers in Teaching and Education” and “Faculty Positions in Academia,” many more were geared towards using your PhD outside of the academic track. There were panels on careers in industry, government, medical science liaison, consulting, publishing, and more. For researchers interested in future paper submissions to an academic journal, there was a panel to help elucidate the decision-making processes within journals. If instead you were not interested in submitting papers to a journal, then there was a panel describing how to become more competitive when applying to your first job outside of academia.

WCUB has also attracted Nature Publishing Group as a partner, and featured 17 exhibitors from various industries who set up booths and were recruiting graduates. Besides the booths of some of the biggest companies in the northeast such as BCG and McCann, there were also those from around the country, including St. Jude Children’s Research Hospital focused on cancer research and based in Memphis, TN, or KWS, focused on plant research and based out of St. Louis, Missouri. You could chat with the recruiters to find out about their companies, and sign up for their mailing list to receive more information. If you are thinking of completely leaving the country, there were even booths sponsoring research opportunities in places like Denmark, Germany, and Brazil.

At this year’s WCUB, the American Association for the Advancement of Science (AAAS) also sponsored complimentary headshots taken by a team of professionals. Conference attendees were able to work with a makeup artist and pose for a photographer. Professional headshots are particularly important for those working on putting together a more polished online profile. The time slots were filled up almost immediately upon being announced, demonstrating the demand and appeal. Fortunately, the photographer had time to squeeze in individuals that did not have a chance to get their own time slot; that is how I came to get my picture taken at this years WCUB, illustrated in this article.

I had the opportunity to go to WCUB in 2015, when I was a third-year student and unsure of my next step. At the time, the conference was a great chance to explore the potential career trajectories available to me. Now, as a fifth-year student, I was able to take advantage of this knowledge and attend panels that were central to the paths I want to pursue most. While some may say that the conference mostly featured “alternative careers,” I would argue that they were simply careers.

One of the seminars that I attended which highlighted this point best was the ‘Next Gen PhD: Where PhD’s Land, and How to Get There’, given by the keynote speaker, Melanie Sinche. She is the recent author of new research, which explores career trajectories and opportunities for PhD’s. Her talk pointed to a vast number of directions taken by PhD’s thus far, and it was an inspiring message to treat your PhD as mental training for the many exciting opportunities that await you.

Over half of PhD’s end up pursuing careers outside of academia, and that number is growing. With more and more resources for career development being offered here at NYU as well as the plethora of information that can be found online, young scientists are often choosing to forgo the academic track. Instead, they can take their skills in problem solving, analysis, and communication, and use them to change the world in ways other than through independent laboratory research. After all, is that not what we all hope to accomplish—to make the world a better place to live? •
GO BIG OR GO HOME?

A comparative look at larger versus smaller conferences

By Stephanie Rogers

Overwhelmed.

That’s the only word I can think of to describe the feeling washing over me as I stare down at the massive hall containing at least 45 rows of posters and countless booths from scientific companies and programs. A banner above me reads Welcome to the Society for Neuroscience Annual Meeting. I whip out my phone to check the app, where I combed through the posters and sessions to select the ones I wanted to see the most. My day is meticulously planned out – all 5 of my days are as a matter of fact – to ensure that I don’t miss any of the science that is relevant to me.

The Society for Neuroscience (SfN) conference is one of, if not the, largest conferences in neuroscience, with approximately 30,000 attendees, where labs performing neuroscience-related research from across the globe attend to present their latest work. It’s a great experience, a place to learn the state of the field and to learn about any advances in technology that, ultimately, you could apply to your work. You are exposed to many scientists, not just those in academia, and can expand your professional network in unexpected ways. However, the disadvantages of such a large conglomeration of scientists is that often times intimate conversations about science are difficult to manage, particularly if you are not familiar with the person you wish to speak with beforehand. At SfN, I sometimes found I was interested in a poster, but the presenter was constantly surrounded by other, equally eager listeners. If I wanted to have a true conversation with the presenter about the work, I would have to jostle down the name and contact information of the author and send a quick email note.

Compare this experience with a Gordon conference, where each conference is restricted to research on a single subject within a field, such as epilepsy, and is limited to 200 attendees. You spend five days at a Gordon conference as well, but there are far fewer people in attendance than SfN. In addition, almost everyone attending is staying at the same hotel. Your week is also meticulously planned out, but this organization stems from the fact that only one event occurs at a given time. You attend lectures with other participants, eat all your meals together, and perform work related to one another. Additionally, the conference planners organize events for attendees during break hours so you can bond with other presenters. Overall, Gordon conferences feel more intimate, and you really get to know the researchers in your field. Through attending a Gordon conference, I made friends in the epilepsy field from across the globe that I am still in touch with after two years.

Both large and small conferences offer unique advantages to students who attend them, but both likewise have their limitations. Larger conferences can give you a birds-eye view of the entire field, and introduce you to new methodologies that you might not have heard of yet. They offer a chance to showcase your work to a large audience and expand your scientific network not only across nations, but across sub-disciplines. However, attending these large conferences can often feel overwhelming and the sheer volume of people makes it more difficult to have an organic scientific discussion with the presenters.

Smaller conferences, on the other hand, offer you the opportunity to really get to know researchers in your sub-discipline. Scientific discussions over lunch or drinks occur more naturally, since a smaller population of researchers is concentrated in a single place and is spending most of their free time together. At these small conferences you’ll get access to the advances in your sub-discipline, but not much beyond this, and typically mostly academic researchers attend (although there are exceptions). Depending on what you want to gain from a conference should help decide what type of conference you attend. In my own adventure as a PhD student, I have found that I tend to enjoy the smaller conferences more, as I really get to build relationships with fellow scientists from across the globe.

Stephanie Rogers is a 3rd year PhD student in Gyorgy Buzsaki’s lab studying the contribution of cortical inputs on hippocampal oscillations. When not in lab, you can find her at the theater or hunting down an Instagram-worthy meal.
GRADUATE LIFE IN THE SKIRBALL INSTITUTE

One student describes the perks of being a graduate student in the Skirball Institute

By Tuğba Çolak-Champollion

Upon completion of the required rotations and coursework, a graduate student’s thesis lab becomes the student’s bubble. The student tends to stay in this habitat throughout day-to-day life. That said, there are many opportunities to get out of your surroundings and mingle with the habitants of other buildings through scientific seminars, Sackler activities, happy hours, and project collaborations.

My bubble is the Skirball Institute for Biomolecular Medicine – more specifically – Skirball 4th floor, as a member of the Developmental Genetics community. You can find out about our annual symposia, weekly seminar series and internal talks, which are great resources for graduate students, on Skirball’s website, but I will tell you mostly about the non-scientific part of being a trainee here. The life of a graduate student in the Skirball Institute has many perks!

Skirball Retreat: In mid-October, the annual two and a half day Skirball Institute retreat takes place at a resort in Lenox, Massachusetts. Labs from all four Skirball floors and some labs from the other buildings participate in this scientific retreat. The participants leave the Manhattan chaos early on a Tuesday morning and drive into beautiful fall foliage by lunch time.

The formal part of the retreat consists of PI and trainee talks, as well as, trainee poster presentations. Science talks continue informally during meals and coffee breaks.

The retreat is a great opportunity to catch up with the research of your neighbors and to be exposed to topics outside of your subfield. A significant amount of the data presented is unpublished work, which is thrilling. Imagine you are among the first 100 or so people to hear about these results in the world. Poster sessions are also an occasion for the trainees to get feedback on their work from scientists outside of their field. We have labs studying immunology, structural biology, neuroscience, cell biology, and developmental genetics. The presenters receive a wide array of questions on their projects. At the end of the retreat, awards are given to the best PI talk, trainee talk, best ten posters, and to an outstanding collaboration between labs.

In addition to talking about science, there are many fun activities to do during the allocated free time. Some of the popular activities include biking, running, relaxing in the sauna, yoga, chatting with colleagues on the patio while enjoying the fall foliage, and napping. We also have three organized non-science activities. The first one is the Skirball Olympics where teams compete against each other in games such as potato sack, wheel barrel, hula-hoop, and egg-on-spoon. Our director, Dr. Ruth Lehmann, is particularly fond of the latter game and she competes every year. If you have good coordination, try to challenge her. The second event is the talent show. There are many scientists among us with secret talents. The community has enjoyed the Classical Geneticists’ musical performances, videos on student-post-doc life produced by the Nance Lab, stand-up shows, and family feud. The talent show is followed by a dance party where you may be lucky to see your favorite PI’s show their moves (the open bar during the poster session helps).

Friendly administration and Luke: The administration employees are super friendly. Sometimes graduate student life feels hectic and unmanageable with deadlines, strictly-timed experiments, and meetings. You may find yourself running around like crazy ants. The admin employees are the antidote to this frantic life. They are serene and compassionate. They help you with the technical details of complicated grant applications. They also help you find a pointer for your lab presentation, which you likely finished preparing five minutes before you give it. Moreover, the 4th and 5th floor admin offices have a guest member, Luke. Luke is a fluffy Australian Shepherd whom you can see on lucky days. He likes treats and pets. He also has a liking for the food that is catered for the seminars – but he is not allowed to have any.

Friendly administration and Luke: The administration employees are super friendly. Sometimes graduate student life feels hectic and unmanageable with deadlines, strictly-timed experiments, and meetings. You may find yourself running around like crazy ants. The admin employees are the antidote to this frantic life. They are serene and compassionate. They help you with the technical details of complicated grant applications. They also help you find a pointer for your lab presentation, which you likely finished preparing five minutes before you give it. Moreover, the 4th and 5th floor admin offices have a guest member, Luke. Luke is a fluffy Australian Shepherd whom you can see on lucky days. He likes treats and pets. He also has a liking for the food that is catered for the seminars – but he is not allowed to have any.
You keep finding cookies and all sorts of free food on various floors: I remember times when I saw a table with leftover cookies and cheese on two different floors on the same day. If you pick up a cookie each time you see one, you will soon start to realize that your waistline is sneakily growing. Unfortunately, these are examples of sweet delicious American baking, hardly resistible.

Skirball happy hour: Every Thursday afternoon, Skirball labs organize happy hour on a rotating schedule. The lab on duty serves drinks and snacks of their choice. The happy hour brings the lab personnel of all four floors together once a week where people chat merrily over beer and high calorie food (Popeye’s fried chicken has been featured several times in the last month). You can hear people asking each other about antibodies and sports games. You can also catch up with the latest gossip in other labs. Some weeks, a group of table tennis enthusiasts brings a full size tennis table to the open area in our building during happy hour. The logistics of how this tennis table is brought is a mystery to me. Is it hiding in one of the labs when it is not in use?

With its lively scientific and social life, Skirball is a great home for a graduate student. A wide range of exciting scientific projects are being pursued, collaboration is valued, and members of our community like to have fun and help each other. So – dear interviewees come and visit us!

Tüjba Çolak-Champollion is a 6th year PhD student in Holger Knaut’s lab studying the mechanisms of collective cell migration in zebrafish embryos. Tüjba enjoys yoga and hiking in her free time.
SACKLER AROUND TOWN

Art Run 2017

Source: Marques Jackson @fillesgarconsny

Source: Marques Jackson @fillesgarconsny

Source: Marques Jackson @fillesgarconsny
SACKLER AROUND TOWN

Archery

Coffee with Sackler

Jingle Bell Jog 2017
By Kristen D'Elia

A PhD is often referred to as "a degree in thinking." Our training develops the ability to think critically and creatively about a scientific problem. This skill is necessary for successful careers in academia and industry, but success in science requires another skill often over looked. Written communication.

The reasoning skills that come with a PhD education are futile without the proper tools to convey those ideas through both verbal and written communications. Obtaining your degree requires some level of communication: you must present your results to your committee periodically, defend your thesis, and write a manuscript for submission. There are often other recommended types of communication such as presenting at institutional retreats or international conferences, and writing a grant to get your own funding.

While these requirements hone your skills for communication of your specific research project and field, it is wise for students to engage in more general communication exercises during their time in graduate school. Being able to explain not only the logistics of your project, but the importance of your field and science research in general, is vital to thrive in many PhD careers.

Writing is a fundamental component of careers on and off the bench. Academically-focused writing is essential for postdocs and faculty to gain funding and recognition for their work. Academic researchers must clearly write goals and the technical details used to accomplish them in their grant proposals and publications.

The importance of effective written communication is also prevalent in many careers away from the bench. Jobs in publishing and medical communications are just a few of the fields with strong written communication among their top resume buzzwords. Some PhD's may even make writing scientific content for general audiences their career as freelance science journalists.

Academic writing has taken a front seat in my graduate education so far. I have written three different NIH style grant proposals for classes and my qualifying exam. I have written a "News and Views" type article that gives an academic perspective on a recently published research article- a "fake" one for a class and a "real" one that will be published in Current Biology later this month.

Let your PI know you would be interested in helping them out with a review or grant proposal. They are often overwhelmed with these writing responsibilities and may have an opportunity for you to pitch in.

All graduate programs are not equal, but from my experience most classes taken by medical science PhDs are lecture, discussion, and presentation based. Only a few of my graduate school classes required any sort of written communication. Of the ones that did, all written assignments were in the form of grant proposals or academic papers. This helps future postdocs and PI's brush up on the writing skills they will need to apply for funding and publish their work.

With most curriculum failing to introduce how communication must differ when talking to scientists outside our fields or to non-scientists, graduate students should look for opportunities to broadly exercise their writing skills. Explaining your own research to the public will be helpful for those in academia to showcase their work to wider audiences. This skill will also allow those who leave the bench to prepare for interviews that often ask for a brief summary of their research.

There are ample opportunities to flex your writing muscles here at NYU with workshops offered for free to students. I have taken a shorter science communication workshop at the medical center directed by a freelance journalist, as well as, the popular science communication workshop for graduate students and postdocs at the NYU School of Journalism. Various seminars will often pop-up if you keep a keen eye on the steady flow of e-mails we receive.

Outside of courses, various groups around the NYU community provide writing opportunities. NeuWrite is a collaborative group of scientists and journalists from NYU and the local NYC area. Members come together to workshop their own science articles. These pieces have been published in well-known science publications and general journals. You can also write for the Sackler's graduate student newsletter, The Messenger (shameless plug).

Random opportunities to write can also be found in unexpected places. I recently wrote a chapter introduction for a neuroscience imaging art magazine called Interstellate, opening that my PI discovered via Twitter.
Taking a course or participating in a writing group in graduate school can allow you to build a portfolio. This portfolio can come in handy if students decide to leave the bench and enter the non-academic world with samples of their own writing. Some PI’s also take a more active role in science communication and can use their portfolio to pitch freelance pieces for various journals and news sources.

Many may think if they understand the science, writing will come easy, but this is not true. Learning to write clearly for different audiences is not intuitive. It must be learned and, importantly, practiced. And even if you excel in one style of writing, trying out other forms will improve your skills overall.

Have strong opinions about a science-related topic? Write an Op-Ed. Have a fun science-related personal anecdote? Write a narrative. Excited about some brand new research and think you can explain it well? Write a piece for a general audience. Think you can explain basic scientific tools and content simply, without jargon? Write an explainer.

And even if you answered “no” to one of these questions, attempt that type of article anyway. It will be challenging. It will take effort. But you will have learned something from the process and you will be a better writer for it. Writing more often, whether it be academic articles or pieces for a general audience, will improve your verbal communication skills as well.

So some advice to grad students everywhere: write, write, write. Writing as often and as varied as possible will help you in whatever career path you decide to take. Write about fascinating science. Write advice on surviving a PhD life and thriving in academia. Write about what you know. Write about what you think. Even, write about writing.

What is Interstellate?

I had the opportunity this past October to write a chapter introduction for Volume 2 of Interstellate. This magazine is an outreach initiative aimed at promoting neuroscience awareness through art. It is curated by Caitlin Vander Weele, a PhD Candidate at Massachusetts Institute of Technology, who wanted to make an outlet for scientists to showcase the beautiful images they create in the lab that don’t find their way into a publication. Scientists from around the world submit their images to be included. Interstellate’s mission statement includes goals of outreach and education, as well as, celebration and art.

GOOD NEWS! Interstellate is expanding its magazine to include images from ALL disciplines of science in its next volume. They are now accepting images for Volume 3. Contribute at interstellate.com/submission. While you are on the website, check out volumes 1 and 2 of the magazine, available for free. Science/art nerds rejoice as Interstellate is also working on getting an online shop up and running to sell prints and other merchandise displaying the images.

Kristen D’Elia is a 3rd year PhD student in the labs of Jeremy Dawson and David Schoppik studying neural circuit properties of vertebrate locomotion. Outside of the lab, she loves photo documenting her adventures around and outside NYC and is on an infinite quest to find the next best dessert.


*authors contributed to work equally
AWARDS & HONORS

Kate Allaway, NIH NRSA
Rachel Bandler, NIH NRSA
Greg Brittingham, NSF GRFP
Matt Keller, NIH NRSA
Lena Lau, NIH NRSA
Naomi Lopez-Carabello, NSF GRFP
Alex Penev, NIH NRSA
Alla Peselis, NIH NRSA
Phillip Thomas, HHMI Gilliam Fellowship

STAFF

Editor
Cynthia Chen
Assistant Editor
Kristen D'Elia
Staff Advisor
Lisabeth Greene
Contributing Writers
Tugba Colak-Champollion
Kristen D'Elia
Chelsea Maniscalco
Alla Peselis
Stephanie Rogers

GRADUATION DEADLINES

May 2018 Graduation Deadlines

Register on ALBERT at home.nyu.edu from October 9, 2017 to February 4, 2018

Preliminary dissertation deadline: March 16, 2018
Final dissertation deadline: May 4, 2018

Resources for thesis preparation and the graduation checklist are available on our student community thesis defenses and graduation page, which you can access using your Kerberos ID.