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Weill Cornell Medicine Graduate School of Medical Sciences A partnership with the Sloan Kettering Institute

WorthWEILL

Message from the Dean



Pelcome to the Weill Cornell Graduate School, as the entering class of 2019! The graduate school is central to the academic missions of Weill Cornell Medicine and the Sloan Kettering Institute, and we welcome you to this community of scholars, engaged in vibrant, cutting edge research in more than 50 areas of biomedical science.

You will be embarking on one of your most rewarding experiences over the next several years; the graduate school is committed to providing you with formal training in critical analysis, to foster innovative thinking across disciplinary boundaries, and to ensure that you are skilled in self-directed learning. I encourage you to work closely with your Program leadership who are dedicated to assisting you and providing curricular and research guidance.

At the Graduate School, we are committed to the success of our students, and helping them to begin to shape their professional career trajectories. I would encourage you to participate in the amazingly rich intellectual environment of Weill Cornell, Sloan Kettering Institute, and our academic neighbors, through seminars, symposia and workshops. You will be provided with more information about accessing these during orientation. Our Office of Career Services is an important resource, offering career coaching, and career development workshops.

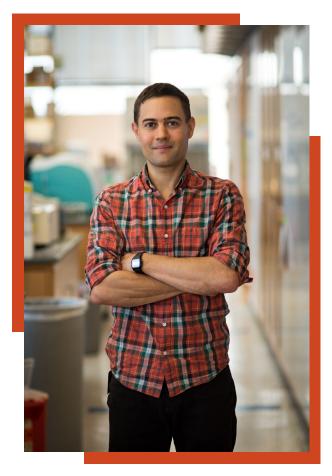
We also recognize that your graduate years are ones of significant personal growth, which encompass many opportunities beyond that of academic work. Our student body hails from many nations and personal backgrounds and experiences, and this rich diversity enhances our graduate school and academic center. Our Office of Diversity and Inclusion, and the numerous deans of the graduate school, are here to guide and support you during your academic journey; your wellbeing is critical to your personal and academic growth. In addition to their research, our graduate students are also involved in and direct many extracurricular activities, including those that support the community at large, and provide outreach to middle school through college age students to promote interest in STEM careers. Our new Feil Family Student Center, opening this fall in LC200, and our new student lounge in Lasdon Hall, serve the many student group activities which occur throughout the year. The Graduate School student leadership, through the Graduate School Executive Council (GSEC), is an important voice and a rich source of information about not only the school, but our neighborhood and NYC in general. In addition, the College offices are here to assist in promoting the interests of graduate students in areas such as financial aid, health care, counseling and housing.

Lastly, I look forward to meeting all of you in a variety of settings, including orientation events, monthly "dinners with the dean", our "Science and Society" seminar series, and other networking opportunities. Our goal is to provide you with the support, commitment and engagement of two institutions, and more than 250 faculty, to help you succeed in this next phase of your training and academic journey.

Barbara Hempstead, M.D., Ph.D.

hen Steven Josefowicz, Ph.D. was growing up, his family moved around a lot in order to forward his sister's violin career. And as his family did what they could to help his sister advance her career, Dr. Josefowicz found his own. "While I had a supportive family, opportunities, and good schools," he says, "the focus on my sister's early career

meant that I 'flew under the radar' to some extent and was able to explore diverse interests without heavy-handed direction." After sampling several fields, he found inspiration in science in his 20s.



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A major factor in deciding to start my lab at Weill Cornell was recognizing what a singular scientific community we have here in the Tri-I neighborhood. The students are smart and motivated and the heart of the vibrant community here.

Dr. Josefowicz was born in Toronto, Canada but spent most of his childhood in Southern California and Philadelphia. Though he saw himself as a "late bloomer" academically, Dr. Josefowicz was admitted to UC Berkeley where he sampled different majors including bioengineering, computer science and premed. He also found many distractions including rock climbing and lightweight crew, but even the distractions had value. "Crew taught me something of the power of commitment, hard work, and teamwork," he says. "I can't overstate how crucial cooperation and teamwork is to success in research. So whatever the source, I'm glad that I was well-primed to enjoy working as a team with others."

t was during his junior and senior years that Dr. Josefowicz discovered immunology while struggling through pre-med. "I caught the bug and found a reason to work hard. Medicine wasn't the path for me after that," he says. "I wanted to dig in on mechanisms and understand the complexity of the immune system. The whole-organism, system-level aspect of immunology fascinated me."

After earning a bachelor's degree from UC Berkeley, he spent three years as a research technician working in the area of human immunology and HIV at UC San Francisco. Dr. Josefowicz credits the exposure to group meetings, seminars, and discussions about science for interesting him further in a career in basic research. "The collaborative and passionate environment there among human immunologists and HIV researchers helped me feel that I was a contributor and part of a team even as a very junior scientist," he says. "Among those encouraging colleagues was Doug Nixon, so it's a fun coincidence to be his colleague again — in another highly collaborative environment — here at WCM."

He began his Ph.D. training at the University of Washington in 2005 under the tutelage of Dr. Alexander (Sasha) Rudensky. His research focused on mechanisms of immune tolerance and the differentiation and function of regulatory T cells — dissecting how our powerful immune systems can effectively combat pathogens while tolerating our own tissues, food, and commensal microbiota. "My Ph.D. studies was a very exciting time," he says. "One especially enjoyable project was a collaboration with my wife, Rachel. The 'job' is so consuming and comes home with you all the time — the understanding, support, and advice of a partner or friends and family is important."

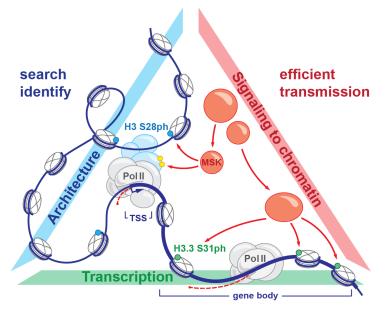
Dr. Josefowicz joined Well Cornell Medicine in 2017 and is currently an Assistant Professor in the Department of Pathology and Laboratory Medicine, Division of Experimental Pathology. He also has appointments in the Immunology and Microbial Pathogenesis (IMP) Program and the Physiology, Biophysics, and Systems Biology (PBSB) Program.

My postdoctoral fellowship in the laboratory of Dr. C. David Allis at The Rockefeller University focused on epigenetic mechanisms underlying cellular differentiation and stimulation events in the immune system. My work as a graduate student with Dr. Rudensky on epigenetic regulation of T cell differentiation and lineage commitment were catalysts, guiding my future research direction into biochemical epigenetic mechanisms that enable cells to interpret the 2-meter long jumble of DNA in a meaningful way to make informed cell fate decisions and respond appropriately to extracellular cues. Dr. Allis is one of the pioneers in the field of epigenetics. I enjoyed his vibrant lab as a crossroads of smart postdocs from diverse backgrounds finding common ground in chromatin biology and epigenetics.

All of the research projects in my lab are at the intersection of immunology and epigenetics, focusing on questions of epigenetic regulation of transcription. Some of the fascinating epigenetic challenges that the immune system solves are (1) selective interpretation of the genome to instruct dozens of immune and blood cell lineages; (2) an ability to induce inflammatory response genes rapidly and to highlevels in response to pathogen sensing or tissue damage (and this feat occurs at select genes among tens of thousands in a 3 billion base-pair, 2-meter long genome); (3) an ability to encode cellular epigenetic "memories" for adapted future responses, as in immune defense (but this type of augmented memory may also contribute to hyper-reactivity and inflammatory disease, or immune cell exhaustion). We study these important phenomena at the molecular level using biochemical and epigenomic methods and at the level of the organism and disease

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The best motivation is chasing down questions that really mean someting to you. Every day isn't a gamechanging experiment. using mouse models and with studies of patient samples. My hope is to uncover epigenetic mechanisms underlying rapid cellular responses in inflammation. Relating to human health, my lab has projects focused on epigenetic regulation in cancer and inflammatory disease.



rapid and robust assembly of transcription machinery A focus of the Josefowicz lab is understanding "signaling to chromatin" or how information is transmitted from outside the cell to select genes in chromatin in order to direct an appropriate cellular response. To understand this process, the lab approaches the topic from three angles (represented by each side of the triangle): (1) signaling cascades and kinases that efficiently transmit information to regulate chromatin at target genes; (2) chromatin architecture and the arrangement of genes in 3D space can define which genes respond, while changes in biophysical characteristics of chromatin can regulate chromatin interactions and recruitment of the transcription apparatus; (3) hundreds of factors must assemble and work coordinately on chromatin to drive rapid, high-level transcription through inflammatory genes. The lab enjoys the challenge of spanning phenotype and mechanism using a mix of epigenomics and biochemical methods together with study of animal models and patient samples.

The best motivation is chasing down questions that really mean something to you. I enjoy daily reminders about the fascinating topics we study — the epigenetic decoding of a single genome for instruction of complex life and the programming of organisms with trillions of cells and thousands of distinct cell types with the ability to respond rapidly to environmental cues and insults. And work on what excites you most. That excitement translates directly into enjoying the hard work, thinking more actively about your science, and having better ideas. Of course, at times it's necessary to do onerous experiments and fill in the gaps. Every day isn't a game-changing experiment.

It takes hard work and constant "on your toes" thinking, questioning, and troubleshooting to be "good at" science. In my opinion this is impossible in a vacuum. It's inspiring to be surrounded by so many others who provide an excellent example of this — in my own lab, my department, graduate program, and the larger Tri-I community.

A major factor in deciding to start my lab at Weill Cornell was recognizing what a singular scientific community we have here in the Tri-I neighborhood and in the immunology community, especially the Immunology and Microbial Pathogenesis program that brings together MSKCC, HSS, and WCM researchers. The students are smart and motivated and the heart of the vibrant community here. They tie labs, collaborations, and graduate program communities together, even across institutes. This is part of the reason why the three institutes in the Tri-I community really feel like one. The senior research faculty at Weill are an especially supportive and collaborative group. Besides being of direct benefit to my lab and our research program, this also sets the positive tone for the research community as a whole.

My advice for Ph.D. students is to take advantage of this amazing community while you are here. Interact with your peers, go to seminars, explore and take advantage of the high density of top science. Find what makes you "hungry" and feed

it! Set aside time to think and discuss your research and career at a high level with peers and mentors. If you need support or help, seek it out; your community wants to provide you with what you need to succeed. Define and commit to your philosophical approach to research and the principles that you want to propagate. In my opinion, while science is competitive, engaging in open discussion of ideas and results, collaborative projects, and helping others whenever you can makes for the most fulfilling and productive environment.



Now that I have my own lab, I hope to provide a fun and motivating environment for my team where we're all excited to work together on questions that we believe are important and novel.



During graduate school in the Rudensky lab, I was learning so much, working with brilliant people, and never doubting that what we were working on was important and novel. Now, with my own group, I hope to provide a fun and motivating environment for my team — an environment where we're all excited to work together on questions that we believe are important and novel.

I enjoy activities that enable me to step back from the relentless to-do lists but still have a chance to think at a higher level about my science, the lab, and life. With a complicated and stressful career, a little distance and perspective can make a big difference and I recommend that young scientists find opportunities for this. One of my favorite ways of accomplishing this is a long early morning run, no podcasts, no music, just going where my mind senses it needs to wander. It's remarkable how important the thoughts I tend to have in these times are. What I enjoy most is spending time outside of the city with my family — my MD/PhD colleague wife and two daughters, age 4 and 6.



Starting graduate school or moving to a new city (or both) can be extremely exciting, but can also be stressful. As we prepare for the 2019-20 academic year, WCGS's staff, faculty and your fellow graduate students are here to help you make a smooth transition to grad school life — both academic and non-academic. Here is some basic information to help you get started!

We look forward to meeting you as you begin your graduate journey, and wish you success in your academic endeavors.



Looking for someone to talk to?

Did you know as a student you have free access to...

Weill Cornell Medicine Graduate School of Medical Sciences



Personal and professional issues

Contact: Assistant Dean of Student Affairs, Dr. Judith Cukor

212.821.0627

juc2010@med.cornell.edu



Counseling services

Contact: Student Mental Health Program, Dr. Richard Friedman

212.746.5775

rafriedm@med.cornell.edu



For more information visit: nyp.org/clinical-services/pastoral-care or mskcc.org/experience/patient-support/ counseling/spiritual-religious-care

For further information, visit: gradschool.weill.cornell.edu/student-experience/accessing-student-support-services

JORDANA THIBADO, Ph.D. Student Physiology, Biophysics, and Systems Biology

n May 2019, Jordana Thibado, 4th year graduate student in the Physiology, Biophysics, and Systems Biology program was named the recipient of the Weill Cornell Graduate School Student Service Award for her distinguished service and leadership in the graduate school and Tri-Institutional community.

Over the last three years, Thibado has shown an extraordinary level of commitment as co-president of the Tri-Institutional Outreach Committee (TOrC), which brings together graduate students from Weill Cornell, Memorial Sloan Kettering and Rockefeller University to promote public awareness and understanding of science by leading outreach initiatives throughout New York City. The organization focuses specifically on engaging kids in science — from inspiring curiosity in kindergarteners to giving high school seniors a glimpse into the life of a scientist. "Our mission is to increase accessibility to science with the ultimate goal of inspiring the next generation of scientists," Thibado says.

Beyond research, Thibado's commitment to outreach has deep roots. While she has been actively engaged in outreach programs as a volunteer since her undergraduate years, she notes TOrC leadership has provided her the opportunity to direct the planning process. "I'm motivated to do this work because of my own experience receiving mentorship from my dad and other scientists as I was growing up," Thibado explains. "Without them, I would not have thought that I could be a scientist and I'm grateful to Weill Cornell for promoting an environment that supports student-run initiatives and values community engagement."

BY CHOICE or BY CHANCE

Jordana Thibado's scientific journey started at a very young age. She was born in Philadelphia to an accountant mother and a graduate student father, and moved to Fayetteville, Arkansas when her father got a job as a professor at the University of Arkansas. Thibado says having a physicist father ignited her curiosity as a child.

For much of her childhood, topics at the dinner table included Newton's theory of gravity and the twin paradox of special relativity. Thibado's fondest memories are of visiting her father's lab. "I remember watching with wide eyes as a marshmallow placed in a vacuum chamber slowly grew to enormous size and then shrunk down to a dwarf version of its original self," she notes. "A bouncy racquetball dunked in liquid nitrogen unexpectedly shattered when dropped, like glass."

Thibado states that though her family always encouraged her



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I continue to be impressed by the commitment that people have for pushing boundaries in science and medicine, and the opportunity to be part of this community is thrilling to me. to pursue a career in science, her career interests fluctuated while growing up. "But they always centered around doing work that I felt could make a positive impact on the world," she says.

It was her experience at a summer academic camp called Arkansas Governor's School where she took neuroscience and quantum mechanics courses that helped Thibado narrow her pursuit to scientific research. She also worked in her father's lab for a couple of summers in high school but her interest in research truly began during her undergraduate studies at the University of Arkansas.

In her freshman year, Thibado joined Dr. Roger Koeppe's lab to conduct biophysics research. Her work focused on investigating protein/lipid interactions and ionizable side chain behavior by using model peptides synthesized in the lab and examining their tilt and orientation using solid-state deuterium NMR spectroscopy. "This basic research is critical for increasing our understanding the function of membrane proteins, such as potassium channels, acetylcholine receptors and others," explains Thibado.

Thibado credits Dr. Koeppe for encouraging her to present her work at every opportunity and apply for fellowships. As such, she was awarded a state-sponsored research fellowship for her work and traveled across the country twice to present at the Biophysical Society meetings. Along the way, she learned that an affinity for science might be in her genes. By the time Thibado graduated with a B.S. in Biochemistry in 2016, she had 3.5 years of research experience and a first-author paper.

RESEARCH

n her first year, Thibado was named a National Science Foundation Graduate Research Fellow which now funds her current work focusing on neurotransmitter-gated membrane proteins called metabotropic glutamate receptors that modulate neuronal communication throughout the brain. "Although these receptors are recognized as drug targets for neuropsychiatric disorders like schizophrenia and depression, no drugs targeting these receptors have ever progressed to market," she says.

Despite that first-year recognition, everything wasn't smooth sailing. "The most challenging part of my time as a graduate student so far has been switching labs during my second year," she says. "I came to find that the lab I joined wasn't as good of a fit as I had thought so I made the difficult decision to leave just as qualifying exam preparation was starting. My program director was incredibly supportive and I quickly conducted another rotation, assimilated into a new lab, and still passed my qualifying exam on time."

It may have been difficult, but there was a lesson to take away and pass on to others. "My advice is to keep an open mind when you're conducting rotations," she says. "I think the most significant factor in choosing a lab is your connection with the PI and the lab members. Even if you love the science a particular lab is doing but you're not communicating well with the people in that lab, it may be difficult to be successful there."

Due to her understanding of the basic properties of membrane proteins in a model system that she acquired as an undergraduate, her approach in the Levitz Lab is biophysical: "The lack of available treatment for metabotropic glutamate receptor-related diseases motivates my desire to understand these receptors so that we can develop better therapeutics," Thibado explains. "To help bridge this gap, I use biophysical techniques to inform on receptor structure, dynamics, and function at the molecular level."

More recently, her work with fellow Ph.D. student, Vanessa Gutzeit has been published in eLife.

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Left to Right: Amanda Acosta, Jordana Thibado, Vanessa Gutzeit

WHY WEILL CORNELL

Thibado's decision to join WCGS was inspired by the students' and faculty members' passion for science. Furthermore, she is attracted to the close proximity to Memorial Sloan Kettering and Rockefeller University, as well as other universities in NYC. "This makes Weill Cornell a particularly exciting place for collaboration with many diverse scientists," she says. "I continue to be impressed by the commitment that people have for pushing boundaries in science and medicine, and the opportunity to be a part of this community is thrilling to me."

When Thibado arrived in New York City in August 2016, she recalls, "After spending 20 years of my life in Arkansas, I couldn't imagine what it would be like to move to NYC and start a brand-new chapter. I remember being incredibly intimidated when I first started at Weill Cornell."



But it was nothing like what she imagined. Instead of feeling overwhelmed, she made lifelong friends both in her program and lab — "What I did not expect was how open and friendly everyone would be!" Thibado shares that not only have they supported each other through the challenges of graduate school — from difficult classes to selecting a thesis lab to passing their qualifying exams and beyond — but they have also run races, traveled, celebrated each other's weddings and more. "I was also lucky to meet my boyfriend of two years at Weill Cornell, who just graduated with his Ph.D. in May."

FUTURE PLANS

Thibado has high aspirations on increasing access to STEM education in underserved communities and addressing global health challenges. She intends to apply her problemsolving skills in a community-focused position, especially in a non-profit sector that will allow her to continue her efforts in community outreach after she completes her degree.

Outside of the lab, you can find Thibado lifting weights in the gym or running in Central Park. And she has recently added boxing to her wellness routine. In addition to fitness, she enjoys touring the New York area. "From exploring Brooklyn to biking around Governor's Island to berry-picking in Beacon, or hiking in the Hudson Valley, New York keeps surprising me with the diversity of things to do and see," says Thibado.

FUN FACTS

Thibado says both of her parents are one of 11 children. "I come from a huge extended family and I have 34 first cousins. Everyone is spread out across the country, so I pretty much always have a place to stay when traveling."

GET INVOLVED

Being involved is the best way to get the most of your graduate school experience. Student clubs and academic initiatives reflect the community here at Weill Cornell. We hope that you find a group that best represents who you are and what you love. But if you don't, start your own! Visit <u>Student Clubs and Initiatives</u> on the WCGS website for details.

- Accelerating BioVenture Innovation
- Badminton Club (GSEC)
- Bench to Bedside Initiative (BBI)
- Craft Club (GSEC)
- Early STEM Outreach Club (GSEC)
- Hockey Team (GSEC)
- Music and Medicine
- Science & Education Policy Association (SEPA)
- Soccer Cub (GSEC)

- The Science Communication Club (GSEC)
- Tri-I Outreach Committee (TORC)
- Volleyball Club (GSEC)
- WCMC Book Club (GSEC)
- Weill Cornell Biotech Club (WCBC)
- Weill Cornell Softball Team (GSEC)
- Yoga Club (GSEC)

Looking for academic or other support?

As a student you have free access to...

Weill Cornell Medicine Graduate School of Medical Sciences



Academic or lab support

Contact: Your Program Director gradschool.weill.cornell.edu/academics

For any additional concerns: Student Ombudsperson, Dr. Henry Murray



hwmurray@med.cornell.edu



International student services

Contact: Sr. Coordinator for Student Success, Chrissie Kong

212.746.4018

sok2016@med.cornell.edu



Disability services

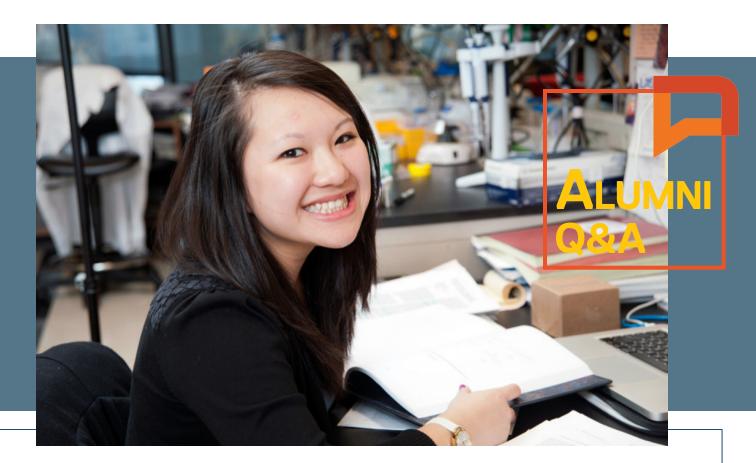
Contact: Associate Dean for Student Affairs, Dr. Dana Zappetti

212.746.1058

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daz9001@med.cornell.edu

For further information, visit: gradschool.weill.cornell.edu/student-experience/accessing-student-support-services



was her support system plus her unrelenting devotion and persistence that propelled Danica Chiu, Ph.D. '16 to discover her full academic and personal potential. As a first generation Chinese-American, Dr. Chiu blazed her own path as the first in her family to achieve a graduate degree. According to the native Brooklynite, she first aspired to be an artist even though her curiosity in medicine started at a very young age. "I studied painting since 10 years old and went to a specialized art high school, Fiorello H. LaGuardia High — the inspiration behind the film 'Fame'," says Dr. Chiu. "At the same time, my curiosity in medicine was spurred on as I watched my father suffer from a rare debilitating form of rheumatoid arthritis."

N ot long after Dr. Chiu started college, she and her family were involved in a car accident that left her mother completely paralyzed. Due to her family hardships, Dr. Chiu volunteered in hospitals and completed several clinical summer internships. "I realized how much there is left to be discovered in medicine," she says. "Though initially it wasn't my plan, I was driven into a career in research because I wanted to understand the complex relationship the human body has with health and disease."

While Dr. Chiu struggled during her undergraduate years at Carnegie Mellon University, her time at CMU was a transformative experience that helped solidify her career trajectory in science. Instead of allowing the lack of advanced math and science courses in her high school years to become de facto gatekeepers, Dr. Chiu says she was a frequent user of office hours and group study sessions. "I also had a lot of great professors and counselors who encouraged me to persevere even though it sometimes seemed like I couldn't catch up to my peers." Additionally, she was exposed to a variety of different research fields such as chronic pain, cancer, obesity and osteoporosis, which ultimately helped narrow her interest to cancer biology in graduate school.

r. Chiu received her B.S. in biology in 2010 and joined the Pharmacology program immediately after her undergraduate studies. While at WCGS, Dr. Chiu's research focused on understanding the novel

non-canonical role of transcription factor HIF-1alpha as a modulating subunit of gamma-secretase in cancer using unique 2D and 3D in vitro cellular assays, recombinant protein engineering and chemical biology approaches. "This work ultimately demonstrated that HIF-1alpha induced gamma-secretase activation led to aberrant Notch signaling which consequently resulted in aggressive cancer cell phenotypes," she explains.

r. Chiu completed her dissertation in the lab of Dr. Yueming Li in 2016 and is now a scientist at Regeneron Pharmaceuticals.

•• Studying at WCGS meant that the research experience is within a hub of the best research institutions and prestigious hospitals, which gave a unique translational perspective to the research being conducted. 99

Please tell me about your current position and what is a typical day for you?

I was a post-doc for approximately three years and was promoted to a scientist at Regeneron Pharmaceuticals recently. As a post-doc, I was fortunate enough to enter the exciting field of immune-oncology. My project focused on studying the mechanisms of activity and resistance of CD3-bispecific antibodies, which engage a T cell to target and cancer cells within a solid tumor microenvironment. My experiments during my post-doc was completely different than what I was conducting in my Ph.D. as it involves in vivo work with transgenic mouse models, immuno-phenotyping, and tissue histopathology. As a side project, I was also able to collaborate with bioinformaticians to design and execute an ongoing single-cell sequencing project to study T cell transcriptomes in different tumor microenvironments.

Now, as a scientist, I draw directly from my post-doc work to help evaluate CD3-bispecific antibody candidates in preclinical models to inform decisions on whether to move drug candidates forward. My day generally involves balancing lab work, making presentation decks and participating in meetings — it is definitely a lesson in prioritization and time management.

Why did you choose Weill Cornell Graduate School of Medical Sciences for your Ph.D.?

Other than the academic excellence and depth of didactic training, being a part of the Tri-Institutional community was a huge advantage over other graduate institutions I considered. As such, studying at WCGS meant that the research experience is within a hub of the best research

institutions and prestigious hospitals, which gave a unique translational perspective to the research being conducted. I also felt that the faculty was very diverse. So there was a culture of acceptance of all different types of careers after graduate school, in academia, industry, consultancy, etc.

When you first started the Ph.D. program, did you know what you wanted to do after grad school?

I knew I wanted to do a post-doc whether it be in academia or industry. I wasn't done learning and I felt like I had just started to refine my research interest in the field of cancer biology. I knew I was committed to a career in drug development and was open to any position that would advance my training in translational research.

How did your career plans or goals change by the time you were finishing your Ph.D.?

My goal was to always be in research that contributed to the development of new cancer drugs. In that sense, my career goals haven't really changed at all. However, the biggest pivot in my career is going from chemical biology background to immune-oncology in my post-doc. Towards the end of my Ph.D., I realized how fascinated I was with the concept of arming one's own immune system against cancer and believed that it can change the landscape of cancer treatments for patients. I decided that I would pursue a training in the field of immune-oncology.

How did you transition into your current position?

As I was defending my thesis, I began looking for industry

post-doctoral positions. I knew that I wanted to understand the scientific decision-making process and clinical strategies behind drug development. Although landing an industry postdoc seemed out of reach, Regeneron's application cycle was open and I decided to go for it. Unlike most industry postdoctoral training programs, Regeneron's post-doctoral training program does not require you to choose a mentor/lab until after you've accepted the position. This meant that there was more freedom to choose a lab based on your interest and not necessarily your previous experience, which was instrumental in helping me break into the field of immune-oncology.

What's your favorite part of your current job and why?

My favorite part about my post-doc was the incredible mentorship I've received. It really is ingrained in the culture here to train young scientists. I have been able to enter a new discipline in cancer research and also learn completely new technical skills. The scientists here come from all different disciplines but because of the collaborative environment, I am able to draw from their expertise to move projects forward. As a scientist, I love the innovative and fast-paced environment. All research discovery is done in-house on our campus, so it is very exciting to witness basic research progress into clinical candidates.

Don't be afraid to put yourself out there even if you don't think you are qualified. Being a successful scientist means being able to solve problems with scientific rigor and think critically which are skills that graduate school already prepares you for.⁹⁹

Share with us some of the challenges you're facing.

Learning how to balance responsibilities in the lab and attending necessary meetings is a challenge in time management and delegation. Since a lot of industry relies on the efforts and progress of multiple groups, keeping up with the progress, data and competitive landscape is definitely a skill set I am working on.

Were you involved in any organizations or activities while in grad school that helped lead you to where you are now?

I was involved in the Vincent du Vigneaud Symposium every year either as a presenter, alumni chair or symposium chair. It was a valuable forum for me to present my work to those in different departments and fields of study. It taught important communication skills and self-advocacy which is very valuable in industry. In addition, co-chairing the symposium taught me skills of leadership and delegation since the symposium is a coordinated collective student effort. This experience taught me where my weaknesses were in communication, decision-making and delegating. It gave me a chance to recognize, correct and refine these skills — they are especially important to build a successful, flourishing career in an industry environment.

Additionally, I also mentored high school, college and graduate students in my lab. This experience was particularly dear to me as I've received a lot of valuable mentorship that helped me get to this point in my career. I have since then also participated in the college-mentorship program at Regeneron, hoping to pay it forward to those trying to forge similar career paths.

In your opinion, what are the main skill sets you need for a postdoctoral position in industry?

I think the main skills necessary for this job include strong critical thinking and strong communication. Completing your Ph.D. means that you have probably spent many hours troubleshooting experiments that just won't work, finding alternative methods to answer your questions, putting in countless hours trying to analyze and make sense of data, and finally being able to package it all and present it to an audience. Honestly, this is the most important skill set one can have as a scientist in industry.

In a fast-paced industry environment, you are likely working on multiple drug targets that you may have limited familiarity with. The critical thinking and problem solving skills that I developed in grad school taught me how to ask the right questions, seek expertise and find alternative routes to move projects forward. Furthermore, presenting my research in departmental meetings, grant reviews and conferences developed my communication and presentation skills which is important since a large part of the job is being able to present data to upper management and collaborating groups. Effective and clear communication is key to making these partnerships work.



Being involved in the Vincent du Vigneaud Symposium every year has taught me important communication skills and self-advocacy — they are especially important to buid successful, flourishing career in an industry environment.

Knowing what you know now, would you still go into your current job?

Absolutely! I've never been more challenged but fulfilled by the work I do. I love seeing the direct contribution I have into drug development for patients. I also really like the fast-paced environment of the work that I do. Since scientists work on multiple projects in a given timeline, you are constantly challenged and never bored by the work you do.

Where do you see yourself going from here?

I love industry. I'm very excited to be in the fast-progressing field of immuno-oncology. I want to continue to gain more experience in preclinical drug development to understand what is key in developing a successful drug. The industry environment provides valuable firsthand experience in the early stages of research but also exposure to the strategic steps towards clinical testing. There are a lot of exciting opportunities at Regeneron, so I hope that one of these will lead to the clinical development of one of my targets.

What advice would you offer to others interested in the same career path as yours?

Don't be afraid to put yourself out there even if you don't think you are qualified. I went from studying art to finally finding my place in immuno-oncology. Being a successful scientist means being able to solve problems with scientific rigor and think critically which are skills that graduate school already prepares you for.

The biggest challenge is being able to successfully adapt your expertise to new problems while being able to self-advocate and communicate that to a potential employer. I suggest reaching out and forging connections with people in industry, which not only provide industry specific insight into the job but also valuable advice on your resume, cover letter, or your application.

Lastly, do a few informational interviews with scientists from different pharmaceutical companies to understand what industry positions really entail. Being knowledgeable about the job makes you a more informative and prepared candidate.

What do you like to do in your spare time?

I love travelling. I think seeing the world broadens my horizons and balances me out as a person. And I love experiencing the culture and food in these different places. It's hard sometimes to remember that there is life outside of the lab. In the few years I've been lucky enough to visit Vietnam, the United Kingdom, South Africa, and Hong Kong. When I am not traveling, I spend time hiking and exploring New York with my pup Chloe, who I rescued a couple years ago. Most weekends, I also spend some time trying out new recipes. I find cooking very cathartic.



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Editor-in-Chief: Chrissie Kong

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