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

FALL 2020

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# MESSAGE FROM THE **DEAN**

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

our fall semester begins, we welcome new and returning students to our research campus, recognizing our mission to build a diverse and interdisciplinary community of scholars, and to empower our students to pursue their research passions, leading to transformative breakthroughs.

am tremendously proud of the resolve and resiliency of our community during the COVID-19 pandemic. Our scientists and students dedicated themselves to developing new diagnostic strategies for COVID-19 and supported front line workers, delivered meals to vulnerable groups, and tutored public school children. Our students maintained strong academic progression with thesis defenses and manuscript and grant submissions. This included 68 Ph.D. students who completed their Admission for Candidacy Exam and 30 students who defended their thesis over ZOOM, plus a record number of fellowship applications. We also celebrated the accomplishments of all of our graduates with virtual commencement and convocation in May. Some examples of the tremendous dedication of our students during the COVID-19 pandemic are shared with you in more detail on the following pages.

Over the last few months, we have also had to critically face the racism and inequities that exist within our society and our academic spaces. We started with challenging conversations on sensitive issues with students, faculty, senior leadership and our staff members. To address concerns that arose, the Graduate School has put together a new Social Justice and Anti-Racism Task Force with broad representation from each graduate program. This Task Force is charged with addressing systemic racism and inequities in our Institution and proposing solutions. I encourage you to read more about these efforts, below. The Graduate School is committed to charting this new course together and we invite you to join in.

This past summer, our students, faculty and staff collectively developed a thoughtful approach for the fall semester, with a hybrid curriculum for Ph.D. students, and a combination of hybrid and remote curricula for our Masters degree students. This combination of virtual lectures with in person lab experience for our Ph.D. students sought to continue research to broaden our understanding of this virus and to advance the health sciences through medical research, while placing a safe working and learning environment at the forefront. Despite challenges, the pandemic has provided an opportunity to reimagine how we can shape graduate education now and post-COVID. A new and highly successful mentorship seminar series, group sessions on building resiliency and fostering support, and effective partnership of curricular offerings at affiliated institutions facilitated by remote learning, have been some of the programs to enhance the experience for our students.

This is a challenging time without precedent. As highlighted in the articles below, our students, faculty and staff have been resourceful and inspirational. I am honored and excited by the dedication of our institutions and our faculty, and the commitment of our students to become the next generation of leaders in the biomedical sciences.

# CONSEQUENCES of COVID-19 on the CLINICAL TRAINING of PHYSICIAN ASSISTANT STUDENTS

By Gerard J. Marciano, Ed.D., PA-C & Randi B. Silver, Ph.D.



t was late January 2020 when a senior Physician Assistant (PA) student, pursuing a clinical rotation in Shanghai, was advised to cut her rotation short and return to NYC. Shanghai is just over 400 miles from Wuhan, where the COVID-19 outbreak first emerged. The student flew home and self-quarantined for two weeks once back in New York City, while looking forward to continuing her clinical rotations in anticipation of graduating in May.

Fast forward to March 2020. The PA Program was sailing smoothly through the academics and clinical training for its three student cohorts. The most senior group was nearing graduation. The second class was in the midst of completing the second of 15 clinical rotations, and the newly matriculated third class, were engaged in the fundamentals of medicine and the basic sciences in preparation for their clinical experiences. This scenario changed abruptly on March 9, 2020, during the upward trajectory of the SARS-COVID2 pandemic in New York City. Most significantly, student's clinical rotations were put on hold. This action was understandable; it enabled the hospital to preserve scarce PPE for the front line health care providers.

Because the PA program curriculum is compressed compared to the medical school curriculum (26 months, PA program versus 48 months, med school), the inability to complete the required 15 clinical The preseverance and the dedication of the PA program faculty and staff to their students and their herculean efforts resulted in the successful completion of the required clinical experiences for the PA class of 2020.



Class of 2020: Physician Assistant White Coat Ceremony on March 5, 2018

Photo credit: Ashley Jones

rotations for the 2020 graduating class was challenging and impactful, forcing students to work closely with PA leadership to continue academic progression. Post-graduation licensing boards were scheduled, job interviews were undertaken, and importantly, jobs secured.

In response to this difficult situation, the PA program faculty and staff, in collaboration with the graduate school and medical college leadership, worked tirelessly to secure additional clinical rotations in metropolitan hospitals and health care clinics, both in New York and across the country. The silver lining is that we were able to experience new clinical venues. Importantly, the perseverance and dedication of the PA program faculty and staff to their students and their herculean efforts resulted in the successful completion of the required clinical experiences for the PA class of 2020. We are proud of the class's patience and adaptability and congratulate them, wishing them much success.

Amidst the continuing pandemic we continue to plan our virtual curriculum and secure clinical rotations with the safety of our students as our foremost concern. We are confident that our students will continue to experience superb academic and clinical training during these challenging times. They are prepared for the new demands of medicine and providing excellent patient care. ◈

GERARD J. MARCIANO, Ed.D, PA-C - Co-Chair & Program Director of the PA Porgram RANDI B. SILVER, PH.D. - Associate Dean, Academic Affairs



# Congratulations to the Class of 2020 and the following Weill Cornell Graduate School Award Recipients!

### **2020 DISTINGUISHED ALUMNUS AWARD**

Established in 1997, this award recogizes an alumnus/a who has demonstrated exceptional achievements and outstanding contributions to biomedical research and education.

### KORNELIA POLYAK, M.D, PH.D '95

### 2020 WCGS DISTINGUISHED STUDENT COMMENCEMENT AWARD

This award recognizes an exceptional member of our graduting class who will deliver the student commecement address.

### **PRADEEP AMBROSE**

### **2020 STUDENT SERVICE AWARD**

The WGCS Student Service Award reconizes one or a group of WCGS students who have distinguished themselves in service to the gradaute school, WCM, MSKCC, HSS, the larger community or beyond.

# **PEDRO SILBERMAN**

### **2020 JULIAN R. RACHELE PRIZE**

This award recognizes the top paper(s) published by WCGS Ph.D. candidates in the past 12 months.

### RYAN RIES

"m6A Enhances the Phase Separation Potential of mRNA" *Nature* 

### **JENNY XUE**

"Rapid Non-uniform Adaptation to Conformationspecific KRAS (G12C) Inhibition" *Nature* 

### 2020 OUTSTANDING IN TEACHING & MENTORING AWARD

The WCGS Outstanding in Teaching and Mentoring Award recognizes a WCGS faculty member in our doctoral programs who has been exemplary in showing their dedication and giving their time to training our first and second year students during their early transition into our programs.

# BIOCHEMISTRY & STRUCTURAL BIOLOGY, CELLULAR & DEVELOPMENT BIOLOGY AND MOLECULAR BIOLOGY RICHARD WHITE, M.D., PH.D.

IMMUNOLOGY AND MICROBIAL PATHOGENESIS SABINE EHRT, PH.D.

> PHARMACOLOGY DANIEL HELLER,PH.D.

### WCGS at a Glance

We are immensely proud of our student body and all they have accomplished. Additionally, we welcome the incoming Fall 2020 Ph.D. class to our academic family.



# Moving Beyond Diversity and Towards Racial Equity and Inclusion

# **Weill Cornell Graduate School**

# Social Justice & Anti-Racism

is not an empty statement when we declare that Weill Cornell Graduate School is committed to fighting racism in all its forms, both individual and systemic. It is imperative to our commitment to diversity that we move beyond simply diversifying our graduate school and think critically about our approach towards equity and inclusion. We must ensure that our programs, policies, and organizational culture value belonging, access and equity for everyone. To that end, we have outlined immediate action plans to work towards racial equity and inclusion.

# ESTABLISH A TASK FORCE COMPRISED OF FACULTY, STUDENTS, AND STAFF

Our first steps have been to develop infrastructure that supports our aim of racial equity and inclusion. We have launched a new 37-member **Social Justice and Anti-Racism Task Force**, with staff, faculty and student representation from each of the graduate programs. Through working groups, this new task force is thinking critically about anti-racism and equity in social justice, recruitment, retention and inclusion, open dialogue and safe spaces, and education and outreach. This task force is co-chaired by Christopher Bourne (Immunology and Microbial Pathogenesis doctoral student), Bjorn Kafsack (Assistant Professor of Microbiology and Immunology), and Monica Guzman (Associate Professor of Pharmacology in Medicine), reporting to the Executive Committee and Dean of the Graduate School. The Graduate School Office and Office of Student Diversity provides administrative assistance and support.

# ENFORCE ZERO-TOLERANCE POLICY FOR ALL FORMS OF MISTREATMENT, INCLUDING RACIAL MICROAGGRESSIONS

Weill Cornell Medicine (WCM) has a zero-tolerance policy for all forms of mistreatment of its students, faculty, staff, and guests, including racial discrimination or behavior of any kind. It is our duty to uphold this policy and we are committed to identifying and responding to allegations of mistreatment and misconduct, including racist remarks and behaviors.

WCGS recently approved the establishment of a <u>Trainer-Learner Committee (TLC)</u>. Composed of WCGS faculty and students, this committee is charged with tracking, reviewing, investigating, and aiding in the resolution of

student mistreatment issues. Reports of mistreatment will be investigated thoroughly by the TLC and resolved according to the level of mistreatment (1-3). Details of the TLC and expectations of the learning environment can be found <u>here</u>.

Further, we approved a formal process for investigating any grievance on issues relating to graduate education and support. We encourage everyone to review the full details of the Grievance Policy <u>here</u>. We hope that students fully utilize these mechanisms to help uphold a safe and positive learning environment.

### INCREASE THE NUMBER OF UNDERREPRESENTED FACULTY IN THE GRADUATE SCHOOL

WCGS is committed to increasing the number of underrepresented faculty in the Graduate School. Our numbers are small; women make up 31% of our faculty and underrepresented minority (URM) faculty constitute 4%. The number of Black faculty in the Graduate School is not acceptable. The WCGS **Faculty Advisory Committee on Diversity** is committed to changing these statistics and reports annually to the Executive Committee of the Graduate School. This committee is poised to mentor and recruit potential faculty from WCM and MSK ranks, and will work to ensure a supportive culture of inclusion among faculty in the Graduate School. Because Graduate School appointments are secondary appointments, initial hiring of faculty occurs at WCM or the Sloan Kettering Institute (SKI).

To increase the percent of URM applications for basic science faculty positions, we must actively recruit URM candidates. In the short term, we will collaborate with WCM and SKI to develop a recruitment strategy for graduate faculty from underrepresented groups. SKI has constituted a Faculty Recruitment Committee specifically devoted to this effort. In the long term, we will work to alleviate barriers for postdoctoral researchers such as funding (postdoctoral fellowships) and mentorship for K and other career awards. The WCM Office of Postdoctoral Affairs is committed to reviewing and assisting in the application of diversity supplements from any WCM faculty member and postdoc.

In addition to faculty diversity, we will expand the diversity of counselors to support student mental health. The diversity of the faculty and staff in the Graduate School is paramount to exemplary scientific training and research, and we are committed to bold efforts that will help change our demographics.

# INCORPORATE ANTI-BIAS TRAINING AND ANTI-RACISM EDUCATION IN OUR CURRICULAR ACTIVITIES

WCM is requiring annual, web-based implicit bias training for all faculty, students and staff, and all academic departments are committed to in-person workshops focused on anti-racism, diversity, and creating a sense of belonging. MSK is also developing anti-racism/anti-bias training for all members. Thus, the Graduate School will be exploring, with the Social Justice and Anti-Racism Task Force, the best strategies for addressing implicit bias. It is very important to increase awareness of and concerns about bias while at the same time providing strategies that students, faculty, and staff can use to change behavior. More immediately, we will be working with our partners to include components of implicit bias, discrimination, and racism in RCR trainings for the entire Tri-Institutional community.

WCGS also offers a two-part Mentor Training Workshop consisting of lectures, small-group facilitated discussions, and case studies based on the 'Entering Mentoring' curriculum (Handelsman et al., 2005; Pfund et al., 2015). Our inaugural workshop, which explored equity and inclusion in mentoring relationships was completed by more than 80 faculty members in April 2020. More than 70% of attendees noted confidence in their mentoring ability was higher after participating in the training. Moving forward, all WCGS faculty will be strongly encouraged to complete this training. It will be offered next in October 2020.

Finally, the task force will explore ways to enhance curricular and educational resources for all students and faculty as they join the Graduate School. Programs under discussion include extended orientation or courses that covers critical race theory and the intersection of inequities in STEM for students, and additonal onboarding for faculty upon appointment to the Graduate School.

### **ENHANCE OUR OUTREACH AND PIPELINE PROGRAMS**

WCGS faculty and students have been integral in supporting outreach and diversity pipeline programs. The ACCESS Summer Research Program, the Tri-Institutional Minority Society's Summer Scholars Research Program (TIMS SSRP), and the High School Catalyst Program are examples of flagship efforts to recruit and retain underrepresented groups in science. Moving forward, one important area is the TIMS SSRP; entirely student run, this initiative helps to introduce local NYC students to research through a very rigorous summer internship. Another very successful student and postdoc-run initiative, the <u>High School Catalyst Program</u> has been a beacon of success, partnering with <u>HYPOTHEkids</u> to provide underserved high school students with seven-week laboratory experiences. WCGS will work to enhance the funding and support for these programs.

We thank you for your commitment to an equitable and inclusive graduate community.  $\ensuremath{\circledast}$ 

# **WCGS Offers Mentor Training to Faculty**

By W. MARCUS LAMBERT, Ph.D.

entorship from faculty is a key part of the graduate school experience and enhancing the mentorship relationship is a major priority for the Graduate School. We were pleased to have 77 faculty complete the first mentorship training session sponsored by the Graduate School in April this year. Mentor training for faculty is more critical now than ever—and not only for early career faculty but for faculty throughout their career. Most students, trainees, and even faculty will acknowledge that mentoring varies greatly among faculty and research laboratories. Faculty are not often reminded of best practices in mentoring and trainees are rarely shown what excellent mentorship should entail, even if styles vary among PIs. Two-thirds of faculty that we sampled had not ever received mentor training prior to our sessions.



To enhance the culture of mentorship in the Graduate School, we have begun training faculty and administrators as facilitators for mentor training. Sponsored by the NIH-funded Weill Cornell Initiative to Maximize Student Development (IMSD), Dr. Teresa Milner and Dr. Ayesha Joshi completed a Train the Trainer course at the Center for the Improvement of Mentored Experiences in Research (CIMER). Upon their return, we formed a Mentor Training Working Group and developed a mentor training session for WCGS faculty based on the Entering Mentoring program (Handelsman et al., 2005; Pfund et al., 2015), one of the most well-studied approaches to mentorship education in STEM. Initially intended for in-person, we were able to adapt the training virtually and open the session to all WCGS and MSK faculty in collaboration with the MSK Office of Faculty Development.

With 110 registrants, we held a 2-part mentor training session via Zoom on April 7th (part 1) and April 21st (part 2) from 9am to 11am. Through case studies, lectures and small group facilitated discussions faculty and facilitators covered: (i) maintaining effective communication, (ii) aligning expectations, (iii) promoting equity and inclusion, and (iv) providing a toolbox of strategies to guide in the professional development of mentees. Facilitators included Judith Cukor, Ph.D., Associate Professor of Psychology and Assistant Dean of Student Affairs, Teresa Milner, Ph.D., Professor

of Neuroscience, Marcus Lambert, Ph.D., MS, Assistant Professor of Education Research in Medicine and Assistant Dean, Diversity and Student Life, Erika Abramson, M.D., MSc, Associate Professor of Pediatrics and Healthcare Policy & Research, Laura Liberman,



Left to right (top to bottom): Judith Cukor, Teresa Milner, Marcus Lambert, Erika Abramson, Laura Liberman, Ayesha Joshi

M.D., FACR, Professor of Radiology and Director of the Office of Faculty Development at MSK, and Ayesha Joshi, Ph.D., Manager of Training Grants and Data Analytics.

The trainings have been well received by the faculty with 77 receiving certificates of completion for completing both parts. 92% of those sampled (N=38) thought it was a valuable use of their time and 92% were at least somewhat likely to recommend this training to a colleague (34% likely and 34% very likely). 74% noted their confidence in their mentoring ability is at some level higher (slightly, moderately, or much) after the training as compared to before the training. Recordings were made available to participants and a mentoring website with further resources will be released soon.

We will be continuing mentor training efforts in the fall and continuing efforts to enhance the mentorship within the Graduate School, including Mentor and Teaching Awards, collaborations with the Mentoring Academy at WCM, and requiring the completion of online refresher modules with policies and resources for both students and faculty.

We thank all of the students, faculty, deans, and staff who have provided feedback, time and resources to promote a strong culture of mentorship in our community!  $\circledast$ 

W. MARCUS LAMBERT, Ph.D. - Assistant Dean of Diversity and Student Life

# Setbacks in Science: A Conversation with Faculty

By JUDITH CUKOR, Ph.D.



ental health is always of major importance, but it is especially essential now as we try to navigate these challenging times as individuals and as a community. Though coping with stressors is a universal challenge, graduate students face unique stressors in the world of science including facing setbacks, rejections and uncertainty.

On May 5, in honor of mental health awareness month, we collaborated with Memorial Sloan Kettering to present "**Panel-PhaileD: A**  conversation with faculty about dealing with failure & setbacks". Our amazing faculty came forth to humbly describe their own experiences with challenges, setbacks, rejections and uncertainty in academia, answer questions, and offer suggestions for facilitating coping in the face of adversity.

The esteemed panelists included Dr. David Simon, Assistant Professor of Biochemistry and Dr. Jessica Tyler, Professor of Pathology and Laboratory Medicine from Weill Cornell Medicine (WCM), and Dr. Adrienne Boire, Assistant Professor of Human Oncogenesis and Pathology and Dr. Michael Kharas, Associate Professor of Molecular Pharmacology from Memorial Sloan Kettering (MSK). The panel was expertly moderated by Dr. Yaihara Fortis, Associate Director, Postdoctoral Affairs and Trainee Diversity Initiatives at MSK.

A dynamic and candid conversation took place seamlessly via Zoom to the large audience of graduate students and post-docs. Over ninety minutes, personal experiences were shared, along with valuable advice for navigating difficult situations.

Ultimately, everyone's project and path are different and scientists come in all shapes and sizes. Do what you're good at and what you enjoy rather than try to fit into any kind of mold.

> Some extremely valuable pearls of wisdom emerged from the event. The panelists began by reminding students that setbacks are a reality for everyone. Though failures sometimes cause us to spiral mentally, we need to remind ourselves that we simply cannot be perfect and can't be spared occasional disappointments. Some described how they remind themselves that it's not a personal rejection of them or their science, and that manuscript rejection is a part of being in academia. Others find it adaptive to throw themselves into other projects. When things in general don't seem to be going right, they reframe their goals into smaller tasks and find perspective by reminding themselves they are learning a lot despite setbacks.

Some panelists also emphasized the importance of "running one's own race" throughout one's career. They shared their own personal experiences of "imposter syndrome" which many were surprised to hear was common even amongst these very successful scientists. They highlighted that students should remember they are not in competition with other trainees. Ultimately, everyone's project and path are different and scientists come in all shapes and sizes. Furthermore, the panelists encouraged students to do what they are good at and what they enjoy, rather than try to fit into any kind of mold.

A discussion regarding mentorship yielded valuable advice about capitalizing on the student–PI relationship. The faculty members emphasized that PIs generally want to offer meaningful mentorship, but may sometimes be unaware of the needs of the student. They encouraged students to speak openly to their PIs about their own needs so expectations can be aligned. Some also suggested that students find other mentors to complement the mentorship they receive from their PIs, and in order to benefit from the support of multiple people, reminding students that senior post-docs can often fit that role.

It was illuminating to understand that even successful scientists like the panelists experience rejection, setbacks and self-doubt. They serve as wonderful models for how to navigate the experience of an academic scientist. Their final message was to emphasize the many positive parts of this journey, and to advise everyone to enjoy the ride and all that it contains.

We are so grateful to Drs. Simon, Tyler, Boire and Kharas for sharing their experiences and their advice and to Dr. Fortis for moderating this powerful event. We are sure students will use these messages to bolster their own resilience and as a guide for navigating their own academic experiences.  $\otimes$ 

JUDITH CUKOR, Ph.D. - Assistant Dean of Student Affairs

# NAVIGATING the ACE in COVID-19 TIME

By Veronica Borhorquez, M.A.

There are key moments that define a Ph.D. student's career: the countless hours behind a successful experiment in the lab, connecting with the scientific community at a conference, or the saving grace of a colleague reading over your final grant application. There are also bound to be uncertain times in graduate school, but none quite like the uncertainty that COVID-19 pressed on us all.

The Admission to Candidacy Exam (ACE) is an exam that second year graduate students take before joining their thesis lab. It consists of an oral and written portion wherein students, depending on their program, must present a research proposal. For many secondyear students, this can be a time of great anxiety, stress, and pressure as they balance completing the ACE exam while taking coursework, managing lab work, and engaging in other graduate school activities. With the presence of COVID-19 however, this took a different direction. With labs shutting down and experiments running against a ticking clock — many graduate students had to adapt to the soon to be virtual and guarantined reality as they approached a momentous milestone that defines them as a Ph.D. candidate.

Across programs, Weill Cornell students were quick and resourceful in finding the methods that best prepared them to remotely defend their ACE. While the setting was different, virtual versus in person, many adjusted well and viewed it as a learning experience. Students across WCGS programs provided feedback to each other on how they navigated the process. This usually consisted of a morning to grab coffee and coordinate IT issues for ACE committee faculty members and soon became a new reality of presenting their work through a computer screen.

We had the opportunity to speak with a few of our second-year students on how they tackled the challenges of preparing and taking their ACE remotely.

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# How did you prepare for the ACE once the quarantine began?

My ACE was one of the first in my program, so about three weeks before the shutdown, I was still hopeful that I would be able to hold my ACE in person accommodating five people in a room observing the guidelines. About one week before the shutdown, I had stopped going into lab. I actually found it convenient with the shutdown in place because this now presented some new found time to spend on writing. I'd like to call it almost a "welcomed distraction" as something to work on amidst the chaos.

# How did you adapt to the "new normal" for your ACE?

Not being in the same space with lab members or colleagues eliminates how you normally interact with people. While in quarantine anything communicated had to be over email. Being tied to email has become a bit of our new normal. However, many of my committee members, including my mentor were incredibly encouraging and understanding. In fact, as I was preparing for my ACE, I unconsciously ignored the fact that I was quarantined. I had to learn to adapt and was able to plan more effectively for things like technical difficulties, and curate outcomes for the virtual ACE presentation.

# What were elements of support?

The support from my mentor was vital preparing for the ACE. My mentor, Dr. Li Gan was very understanding when I had to stop coming into lab and adhere to the new set of guidelines for safety. Equally, my program facilitates a weekly Journal Club that becomes an opportunity for students to practice their ACEs towards the end of the academic year. While I was unable to persuade turnout with free food, my peers were very helpful.

After I successfully defended my ACE, my lab threw me a "surprise Zoom party" and had set virtual backgrounds congratulating me. It felt great to know that while sometimes the moment after your ACE can feel isolated, there was a visual effort to celebrate despite the times.



Chloe Lee Lopez Neuroscience Program (Li Gan Lab)

"I had to learn to adapt and was able to plan more effectively for things like technical difficulties, and curate outcomes for the virtual ACE presentation."



Thais Klevorn Immunology & Microbial Pathogenesis Program (Sabine Ehrt Lab)

# How did you prepare for the ACE once the quarantine began?

Learning to work from home was one of the most shocking aspects. I had to learn which tools helped me best assist me in the ACE writing process. Without my lab computers, I had to rely on my 11inch laptop. From there, I had to request a monitor from my PI so I could work at home more effectively. I also learned how to become more disciplined with time and build a schedule or routine. I had become used to the interactions with lab mates, and working by myself was new.

My lab is very connected and lunchtime is when we all take time to gather around to exchange stories and updates. Regardless, after I knew how to incorporate my own tea breaks and lunch, I was able to more closely focus on writing for my ACE.

# What were elements of support?

My PI is incredibly communicative with me and she provides a supportive environment. We used to have weekly meetings, but once that had to decrease due to the shutdown, she gave me freedom to work on the ACE and was always encouraging. Despite the absence of the physical lab setting, I've incorporated weekly calls with colleagues and lab mates. Equally, within my program I was able to have personal practice ACEs. This meant that I could schedule Zoom sessions for friends or colleagues that normally would not be able to come in person to view my presentation virtually. That was a unique "My PI is incredibly communicative with me and she provides a supportive environment—she gave me freedom to work on the ACE and was always encouraging."

opportunity and it was great to have an opportunity in collecting feedback from various sources of networks in my life, both in and outside of WCGS.

# What are your takeaways from this experience?

Since the ACE for the IMP program is geared at presenting on a topic you are unfamiliar with, I had to find sources to become motivated and focused. This included a balance of working on my ACE but also taking note of my mental health. I relied on my spiritual community to prioritize self-care — this included exercising a lot and keeping active. It's easy to stay stationary when you are just sitting at your computer. So, despite the quarantine, make sure to consider your inner health because it can affect your overall performance.

# How did you prepare for the ACE once the quarantine began?

My ACE was in Mid-April, so by the time the quarantine came about I was expecting my ACE to be virtual. It was helpful to learn from other students who presented before me and how they were preparing. What was difficult was the uncertainty, and learning how to decide when to start writing and shutting down experiments simultaneously. Moving home allowed me to spend more time than I had thought to prepare. In the end, it was helpful to have the time at home to space things out. In fact, I found it to be motivating and having an abundant time to read more and practice. I realized quickly I had more opportunity than disadvantage despite the quarantine.

### What were elements of support?

I am lucky to be a part of a communicative and supportive lab environment. Colleagues in the lab helped with edits and feedback, especially during a time where there are so many emails and distractions — I went through multiple rounds of drafts and colleagues engaged which was reassuring. I also received insight from a fellow graduate student who was in the lab. Communication was able to get replicated virtually — our lab started using Slack and we resumed our lab meetings so it didn't feel like I was missing out on connecting with other members.

# How was it like experiencing a virtual ACE?

It was very different. There are elements in-person that cannot be replicated through a screen. For instance, some of my committee members didn't have their video on, so if I was answering a question, it was a little ambiguous if they were content with my response since I could not assess their facial reactions. Similarly, if some of them are on mute, it is a different type of climate and there are fewer obvious social cues to pick up on.

Overall, I believe the ACE should be in person. It makes it more "official". I think the adrenaline and the nervousness makes it more the momentous occasion that it should be — it feels more like the proper exam when this might have felt more like a presentation.



Tanya Jain Neuroscience Program (Yueming Li Lab)

<sup>6</sup> I'm lucky to be part of a communicative and supportive lab environment, especially during a time where there are so many emails and distractions.<sup>22</sup>

# DIVERSITY AND INCLUSION

By Avelino Amado, Ph.D.

ver the last few months, the Office of Student Diversity, like the rest of the WCM campus, has quickly

adapted to COVID-19 and continues to provide services to our students. Dr. Marcus Lambert, Assistant Dean of Diversity and Student Life, and I work closely with the Graduate School leadership to develop and implement various events and outreach activities for the Esprit de Corps Program. This year-long program, now in its third year, aims to help first year graduate students from underrepresented backgrounds develop the "soft skills" needed to succeed in graduate school.

During COVID-19 we continued our activities remotely. As scientists, writing is one of the most important aspects of what we do. In April, we were fortunate to work with Dr. Susan Marriott who presented the "Fundamentals of Scientific Writing" workshop to our graduate students. Over 60 graduate students registered for the virtual event and the workshop in this remote format went smoothly. Dr. Megan Allen, Senior Grants Administrator, also assisted in organizing. The collaborative effort made the event a hit and we believe this workshop enhanced the professional development of our graduate students' education beyond their own discipline.

As we enter fall, I am proud of the work we've done to help maintain our community. The Esprit de Corps program has played an important role during these difficult times. Over the summer and into this semester, we held weekly "Happy Hours" to provide students with a space to interact with their peers. "The weekly Esprit de Corps meetings were an important space to safely share about the ways in which the current circumstance has affected me personally and professionally," says Lisa latckova, first-year Ph.D. student in the PBSB program. "I strongly appreciated knowing that I had a support system within this community — it gave me strength in facing these new challenges and advice on how to address them and cope with the associated stress."



To bring students together virtually, the Office of Student Diversity has moved its weekly Coffee Hour online. This weekly event aims to bring students, faculty and staff together for a relaxing and informative discussion.

Outside of the Esprit de Corps Program, the Office of Student Diversity continued with "Coffee Hour", an event meant to provide a space for graduate and medical students to interact with faculty and staff. The success of this event was attributed to the regular crowd of students and the efforts of Diversity Coordinator, Chantel Gooding. Both "Happy Hour" and "Coffee Hour" provided a degree of normalcy for me as well, and I looked forward to both events. I knew there would be games, polls, and great conversation. I've learned a lot about the Weill Cornell Community during this stressful time, and I couldn't be prouder to be a part of it.  $\circledast$  CAREER AND PROFESSIONAL DEVELOPMENT

By Aubrey Leukart, Ph.D.

areer and Professional Development has been moving along since going remote; the most noticeable change has actually been increased contact with students. This is my favorite part of my job, so it has been a welcome change! I have lots of one-on-one appointments every week, and still have drop-ins (aka office hours) twice weekly. It's great to see so many students, some whom I've worked with before and lots of new faces, too.

I'm also doing weekly seminars on career basics (overall job search, written documents, interviewing, networking), as well as a new series called Career Conversations, with Dr. Avelino Amado from the Office of Student Diversity. This bi-weekly series is an opportunity to talk to an early-career professional about their PhD and job search; it's our hope that the conversational approach will let students feel comfortable asking about the tougher aspects of their degree and path, like coping in difficult situations, not getting along with a boss, dealing with imposter syndrome, changing jobs, and so on. We've already had speakers from nonprofits, consulting, and academic administration, and look forward to other industry representation in the coming weeks.

Further, I'm seeing a big uptick in recent contact from students in their first, second, and third years about what they can do now to help their future job search; as always, my answer is network, network, network. People are often intimidated by this word, but it is simply getting to know people in your field — if it feels fake, you (or the person you're speaking with) are doing it wrong. Good ways to network right now include attending webinars (and, even better, engaging in the "chat" feature) and asking people in your field to do an informational interview on Zoom. If you're still feeling intimidated by this, or unsure about what a good networking strategy would look like, reach out to me and we'll come up with an approach that works for you and your interpersonal style. \*

# Weekly Career Development Workshops

Wednesdays, 1:00 - 2:00 pm

- Job Serach Basics
- Resumes and Cover Letters
- Interviewing and Networking

# **Office Hours**

Tuesdays & Thursdays, 1:00 - 2:00 pm

WCGS trainees working on the front lines during the height of the COVID-19 crisis in New York City: Dr. Francesca Florini (left) and Joseph Visone, BCMB graduate student (right) stand in front of the Roche COBAS 6800 qPCR machine used to detect the presence of the virus in patients' samples.

LAB-C

Roche

# NEW YORK CITY, THE NATION'S CORNONAVIRUS EPICENTER: HOW WCGS'S STUDENTS STEPPED IN TO HELP

By Dylan J. Murphy & Leona Nease

ursuing a Ph.D. is guaranteed to come with many challenges and unexpected situations, not the least of which being a global pandemic that forces labs, schools and cities to close on a whim.

or many graduate students at Weill Cornell, this meant a total pause in their thesis research and their lives in the city. As New York City entered an unprecedented lockdown, graduate students grappled with the challenges of transitioning from working in a laboratory to working from home. During these difficult times, many students realized the needs of our community and selflessly worked to ensure that those needs were met. A few of these student-led initiatives have included collecting and making PPE, conducting SARS-CoV-2 research and volunteering in the coronavirus testing labs at the hospital. In these ways, the graduate school community has come together to support the patients, healthcare workers and each other during these difficult times.

As the virus spread and labs on campus began to close, graduate students sought ways to get involved and help the community. Third year PBSB student, Justine Lottermoser, saw this need early and worked to help coordinate the collection of PPE amongst graduate students and other members of the Weill Cornell Community. "In research labs, we tend to have stocks of gloves and masks on hand. My lab only had a few boxes to donate, but I knew other labs were well stocked and looking to make donations," says Lottermoser. As news of the collection began to spread, Lottermoser helped facilitate collection from larger private groups, individuals who were social distancing at home and those who lived close enough to make drop offs in person. These supplies were sent to the hospital where they were used on the front lines to help protect our health care workers.

With labs shut down, graduate students reconsidered their research in the context of COVID-19. Many had thought of innovative ways to repurpose their scientific knowledge and shift the focus of their work to serve the medical community. Andrew Schaumberg, a Tri-I Computational Biology student who graduated in May, undertook relief efforts with



Justine Lottermoser, third-year PBSB graduate student helped coordinate the collection of PPE for health care workers.

3D printed face masks and shields for frontline healthcare workers in NYC. Additionally, as part of his thesis work, he developed "pathobot", an artificial intelligence [AI] to find similar histopathology photomicrographs on social media and PubMed. Often, such photomicrographs are taken with a smartphone mounted to a microscope, and pathobox is a mount to do this.

With labs shut down, graduate students began to think about their own research in the context of coronavirus. Many had thought of innovative ways to repurpose their scientific knowledge and shift the focus of their work to serve the medical community.

Through Twitter, pathobot connects pathologists who have similar photomicrographs to discuss next steps in a patient's care. Originally, pathobot's PubMed database included SARS, MERS and older coronavirus literarure, but Shaumberg has expanded this to COVID-19. "This experience helped me print a better pathobox and synergized with my pathobot-AI thesis work," explains Schaumberg. "I'm grateful to Professor Timothée Lionnet and others at NYU for heroically assembling shields, organizing and delivering them. We're all in this together." His efforts during this time are prime examples of how flexibility and innovation can make a

big difference during times of need.

Cimilarly, graduate students have Deen instrumental in identifying important COVID19 research questions and establishing collaborations amongst groups to answer these questions. Third year Computational Biology doctoral student, Tomer Yaron, has collaborated with scientists in a cross-disciplinary research effort focused on gaining a greater understanding of SARS-CoV-2 proteins. Using computational methods, he identified predicted phosphorylation sites on SARS-CoV-2 proteins, which has led to the screening of kinase inhibitors as a potential antiviral therapy. Tomer's work has contributed to Weill Cornell's impressive COVID-19 research response that continues to generate knowledge and inform the greater scientific community. His passion for his research coupled with

hard work has allowed him to stay focused and make exciting findings, despite new and constantly changing situations.

As existing research lab spaces on campus were transformed into COVID-19 testing laboratories, graduate students saw an opportunity to repurpose their hard-earned

technical bench skills to serve the greater community. Leona Nease, a third-year Pharmacology student, and Carlos Diaz, a fourth-year Immunology student, volunteered in one of these labs to ensure testing could be completed at full capacity. Having already been trained in biosafety

"We hope to be able to use our tools to provide some aid in the pandemic and help connect pathologists with similar COVID-19 cases. "

– Andrew Schaumberg, Ph.D. '20

level 3 practices and gained years of experience working with hazardous materials, it was a seamless transition to work in a clinical laboratory setting. "I was excited to help out and be able to make an immediate impact," says Nease. "It was also nice to have a temporary lab to call home — it's hard to go from working on experiments at the bench every day to only working from my apartment." Through a combination of efforts from Pl's, postdocs and graduate students, WCM was able to ramp up their testing to meet the dynamic needs of the

### community.

Weill Cornell Graduate students have shown great strength, drive and flexibility in response to COVID-19, while retaining their scientific curiosity and passion. By collecting and making PPE, conducting SARS-COV-2 research and volunteering in the COVID-19 testing labs at the hospital, graduate students have been invaluable in supporting the medical and scientific community during such uncertain times.  $\circledast$ 

# "

As Ph.D. candidates, we're extremely fortunate and privileged to have received a stipend and housing during these uncertain times. It's only fair to share that privilege by volunteering our time at the testing lab. Also, coming from a country that was hit really hard by the pandemic, working at the covid lab in NYC felt like I was somehow helping out back home.



**Carlos Diaz Salazar Albelda**, fourth-year IMP graduate student volunteered to work on coronaviris testing in one of the WCM laborotories.

# To Learn More or Get Involved

To request 3D-printed face mask, face shield, or "pathobox" telepathology equipment, see <u>https://twitter.com/pathobotology/moments</u> or <u>http://pathobotology.org/contact</u>.

To use or contribute to pathobot's search tools and patient case database, see <u>https://www.nature.com/articles/s41379-020-0540-1</u> or <u>https://</u> <u>digitalpathologyassociation.org/blog/2020/06/</u>.

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