

# Pulled Away from the Lab

PHD STUDENTS ANGST, BUT ALSO WRITE,  
TEACH AND HIKE | BY CRISTINA ROUVALIS

Pam Brigleb was on a roll. She was spending long days in the lab, studying how a particular virus, known as reovirus, could trigger celiac disease. The results looked promising. The 25-year-old PhD student at the School of Medicine was tingling with excitement about the breakthroughs, which she hoped could one day lead to a celiac therapy.

Then another virus entered the picture—the novel coronavirus—and the world, including her lab, was forced to shut down. The weekend before the March 16 closing date, Brigleb worked day and night to get in as many trials as she could.

For Brigleb, the pandemic has been a frustrating interruption in her work in the lab run by Terence Dermody, the Vira I. Heinz Distinguished Professor and chair of pediatrics. But the time off motivated her to do something else she has always wanted to do—teach a class. A trained immunologist in a lab filled with virologists, she started a remote Friday class and dubbed it “Immunology with Pam.”

“It was a good opportunity to get teaching experience,” says Brigleb, who wrote an article about it for *Nature*. The fourth-year grad student hopes the pandemic won’t delay her plans to graduate in 2022.

Christopher Harim Lee, 30, is on track to present his dissertation by December 2021. Lee and Brigleb both do research with reoviruses, which sometimes cause mild respiratory or gastrointestinal symptoms in humans but often are asymptomatic. (Scientists like to employ them as model viruses to study how similar viruses can cause disease.)

When the lab reopened on a staggered schedule in June, the shortened hours allowed him to concentrate on his writing. “Sometimes I go down the wormhole of lab research. This lets me look at the big picture.”

Even so, he and other grad students miss the camaraderie of the lab.

Throughout the pandemic, Dermody has organized activities to keep his graduate students connected: Regular Zoom calls. In-person hikes on Mount Washington with hikers staggered 10 feet apart. A short-lived book club.

“I don’t like to use the words ‘social distancing,’” says Dermody, physician-in-chief and scientific director of Children’s Hospital of Pittsburgh of UPMC. “That is inhumane. Solitary confinement is cruel and unusual punishment. We were physically distanced.”

His students took turns presenting on provocative scientific papers. They also took on writing “sprints.” A researcher would be given a deadline to write a section of their thesis, and two “sprinters” would provide

feedback. “It was write, review, revise—and repeat,” Dermody says.

John Horn, associate dean for graduate studies, says the pandemic has been hard on students, most of whom are in their 20s, an age when socialization is important. “It’s very stressful for them. We know that because we’ve surveyed them. Some of them have coped well. Some of them probably not so well.” (School of Medicine students have access to Pitt counselors and other mental health resources: [www.medstudentaffairs.pitt.edu/contact-us/mental-health-team](http://www.medstudentaffairs.pitt.edu/contact-us/mental-health-team).)

Some first-year students said the lab-free days left them feeling isolated after moving to a new city. It also left them unsure of the progress they were making. Some mentioned becoming overwhelmed with uncertainty.

For second-year student Bellina Mushala, the pandemic meant forgoing her third rotation in a lab in the molecular pharmacology program. Instead, she coauthored a literature review article through a series of virtual one-on-one sessions with Iain Scott, PhD assistant professor of medicine. She liked the experience so much that she decided to join his lab.

Even so, the 22-year-old worried about the lost bench time—she wasn’t able to return to the lab until August. “It was a real self battle,” she says. Scott reassured her that a PhD was a marathon, not a sprint.

The death of George Floyd and other injustices brought to light last year, including the disproportionate number of underrepresented minorities dying from COVID-19, made 2020 all the more difficult for Mushala, who is a person of color.

As citizens took to the streets for justice, Mushala and other students confronted administrators about equity issues at Pitt Med. She was heartened by the way they listened to student concerns. The graduate program office brought on Priscilla Morales as assistant director for admissions and diversity. The Biomedical Graduate Student Association now has a diversity and inclusion committee.

Even before the pandemic, the School of Medicine wanted to ramp up career planning for late-stage PhD students who were so engrossed in finishing their dissertation that they didn’t have time to think of what came next. Pitt Med now offers virtual career workshops, which allow those approaching the finish line to explore career goals and options.

The biggest hardship was on people who had just graduated and were looking for jobs, Dermody says: “The market for science jobs basically dried up.” But he reassures students who are preparing their dissertations that they can hone their skills until the market turns. “I have told them many, many times, ‘When resources are constrained, the best place to be is in training. It’s going to get better.’” ■