Ramping Down, and Ramping Up

Conducting Research During a Pandemic and Planning a Safe Return to Campus

The Georgia Tech campus has been eerily quiet since mid-March, with classes held online and on-campus research ramped down to essential activities. Now, as planning committees examine how to safely ramp up research activities, we talked to two campus leaders about possible

TECH MOVING FORWARD

As the Georgia Tech community prepares to phase in a return to in-person teaching, learning, and working, we will be here every step of the way, providing safety guidelines, information, and updates. Get the latest information at health.gatech.edu/tech-moving-forward.

Annual School Supply Drive Underway

Georgia Tech Human Resources has secured backpacks to be filled with school supplies for its annual Buzzin’ Back to School drive. Backpacks will be distributed to Georgia Tech employees with children in grades K-12 who may not have the financial means to obtain the necessary supplies for school.

To request a backpack, visit hr.gatech.edu/buzzin-back-school by Friday, June 19.

The Georgia Tech community is asked to donate supplies to fill these backpacks. This year, Human Resources asks that, as much as possible, donations be delivered instead of dropped off in person. An Amazon Wish List at hr.gatech.edu/buzzin-back-school shows what items are needed.

To ship donations from other stores, send them to:

Georgia Tech Human Resources
Attn: Buzzin’ Back to School
500 Tech Parkway, NW
Atlanta, GA 30332

The deadline for donations is Friday, June 26. If you prefer to drop off items, visit hr.gatech.edu for Human Resources updated hours of operation.
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next steps.

Julia Kubanek, associate dean for Research in the College of Sciences and professor in the School of Biological Sciences and the School of Chemistry and Biochemistry, and Nazia Zakir, assistant vice president for Environmental Health and Safety, answered our questions.

Will you give us a brief overview of the current state of research at Georgia Tech?

Kubanek: Currently, all research that can be conducted from home is continuing that way. Graduate students and postdoctoral researchers who would normally conduct most of their research in labs on campus are working remotely, analyzing and interpreting data, writing theses and manuscripts, and designing future experiments.

A small proportion of research that requires access to campus facilities has been approved as essential, with those researchers coming to campus, but only when needed. We are also protecting Georgia Tech’s future ability to ramp research back up by maintaining equipment that cannot be shut down and tending to collections of living organisms, like cultures of unique microorganisms.

How has the pandemic affected research at Tech?

Kubanek: Georgia Tech researchers have pivoted to apply their talents and expertise to the current crisis. Much of the approved essential research is related to Covid-19 — design, construction, and testing of face shields, masks, and ventilators; experiments leading to new Covid-19 vaccines and drugs; preparation and validation of biochemical reagents for test kits to support the State of Georgia’s testing as well as the plan to return to the Georgia Tech campus.

Other ongoing essential research involves meeting urgent deliverables for national priorities unrelated to Covid-19. Researchers on campus are practicing social distancing, maintaining lab safety practices, and wearing face coverings as appropriate for their research environment, and only coming to campus when their experiments demand it. We have been supported by fantastic building and facilities staff who keep campus running safely.

What might the research ramp-up look like as we move forward?

In the initial phase, we want to maintain overall density of researchers at no more than 25% of our normal density — for example, labs that normally would have 12 people working in them will be restricted to three or fewer, staggering their presence in lab spaces, along with implementation of a maximum number of researchers per square foot of lab space.

Personal protective equipment (PPE) will be provided and its use will be required in campus buildings. Priority for return to campus for research will be given to graduate students who need access to labs and core facilities to perform experiments in order to defend their dissertations this summer, along with other research that cannot wait, knowing that many of us need to continue to work remotely because of limitations to childcare, health conditions that put us at higher risk if infected with Covid-19, and access to safe transportation.

The most important consideration will be the safety and health of individual researchers and our community, so there will be metrics in place to monitor the success of our research ramp-up efforts. Once milestones are met, more researchers will be welcomed back to their labs, but still maintaining lower overall densities than prior to the pandemic. To achieve this level of safety, we will ask researchers to stagger their presence on campus by working in shifts. If the pandemic worsens, we may revert to more stringent restrictions, so the plans need to be fluid in order to respond to the reality beyond our campus.

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What measures are being taken to help ensure the safety of researchers?

Zakir: Environmental Health and Safety (EHS) has continued to provide safety support to essential research that is still operating during the ramp-down. EHS has staff on campus daily to support research efforts and to respond to any emergency. This includes the hazardous waste, chemical safety, biosafety, general safety, environmental programs, and radiological safety teams.

Biosafety and radiological safety are still reviewing research protocols for safety, training, and PPE requirements. There has been an influx of biosafety protocols as our researchers turn their expertise to increase our understanding of the coronavirus and work to develop potential vaccines.

Our Fire Safety office is actively reviewing lab renovations and construction plans and working closely with Facilities Design and Construction on
lab buildouts for new researchers.

Researchers, at a minimum, will be expected to wear a disposable surgical mask, safety glasses, lab coat, and gloves. Additional PPE, such as coveralls and shoe and hair covers, are required in cleanrooms. EHS conducts risk assessments to determine appropriate PPE for specific procedures.

**How does a research institution conduct research during a time when vendors may not be able to deliver?**

**Kubanek:** Some vendors have continued to supply our ongoing essential activities by filling and delivering orders. At least one campus stockroom remains partially open for business to support essential research. We have had to seek creative solutions for other necessary items — sharing among labs and making our own materials from available parts and ingredients. The search for PPE, which will be necessary for the research ramp-up, has been especially inventive.

**Zakir:** Our researchers were very kind to donate their PPE supplies to the Georgia Department of Public Health back in March. Now we have to replenish the supply. EHS has been procuring PPE from multiple vendors to meet this need. Most vendors are selling in bulk and if we are just a few minutes delayed with placing an order, we may lose the order. We’ve had good luck with basic PPE such as gloves and safety glasses. A generous donation of surgical masks from our colleagues at Georgia Tech-Shenzhen will be helpful as researchers head back to their labs.

Some distilleries are manufacturing sanitizer, and we have purchased large quantities for the campus.

**Are there research projects that absolutely must continue because of strict deadlines? If so, how will that be addressed?**

**Kubanek:** Almost all research sponsors, especially federal funding agencies, have been very accommodating about deadlines. In cases where a sponsor has not been able to delay deliverable deadlines, or research data or samples would be permanently lost if experiments are not completed, research activities have been approved as essential as long as the health and safety of personnel can be protected.

**What are the big takeaways for research from this crisis?**

**Kubanek:** Georgia Tech students, staff, and faculty are enormously creative and determined to contribute positively to our society in this crisis. Even with pressing family responsibilities and ongoing concerns about the progression of the pandemic, our researchers and the staff who support them are working harder than ever. They are making the best of current restrictions on access to campus. Those performing on-campus research are carefully managing their own safety while pursuing projects that two months ago were not even imagined. Some of these new research trajectories will become part of long-term collaborative programs to train future students and spur innovation in fields far beyond the immediate response to Covid-19.

**What have you learned personally from this experience?**

**Kubanek:** I’ve learned that our researchers don’t give up. I’ve learned that they will eagerly investigate new topics and apply their inventiveness, honed in other fields, to battling a virus that they hadn’t heard of until 2020. I’ve learned what my colleagues’ kitchen walls, kids, and dogs look like.

**Zakir:** I’ve learned that we can be flexible and adaptive as our priorities changed so quickly. I was astonished that the research labs were able to ramp down so rapidly.

I’m very proud of our EHS staff for embracing new responsibilities. We collaborated with the executive vice president for Research’s office on a survey for researchers to list what they could donate. Then we worked alongside the Georgia Tech Police Department to collect PPE from labs all over campus and had 12 pallets ready for the Department of Public Health in two and a half days. And EHS is supporting the mobile testing lab by conducting safety audits twice a day, including weekends.

Facilities and Campus Services staff had to quickly respond to new needs and expectations and have done a great job. As we ramp up, expectations will change again, and we will do our best to deliver.

Researchers in the Krone Engineered Biosystems Building wear protective masks and practice distancing in the workplace.

Photo by Rob Felt
In Memoriam
James Cornacchia

On June 1, Officer James Cornacchia of the Georgia Tech Police Department (GTPD) lost his battle with Covid-19. He served the Georgia Tech community for nearly 20 years and most recently worked as part of the patrol unit.

GTPD shared the news on the department’s social media: “He was a loving father, husband, brother, son, and friend. Officer Cornacchia was a valued member of the Georgia Tech community and will be sorely missed.” Learn more about Cornacchia through a GoFundMe organized by a fellow officer at https://gf.me/u/x649v5.

He was last on campus May 12 and did not develop symptoms within 48 hours of that day. Out of an abundance of caution, all GTPD officers have been tested for Covid-19. Each of those tests came back negative. Georgia Tech continues to strictly follow guidance from the Georgia Department of Public Health, the Centers for Disease Control and Prevention, and the governor’s task force.

Information for the Georgia Tech community related to the coronavirus outbreak, including health and well-being guidelines, can be found at health.gatech.edu.

Mayor Appointed Secretary of the Faculty

J. Rhett Mayor, associate professor in the George W. Woodruff School of Mechanical Engineering, has been appointed the next secretary of the faculty by Georgia Tech President Ángel Cabrera and the Faculty Senate. Mayor’s appointment follows Jeanne Balsam’s retirement from the role and is effective July 1.

The secretary of the faculty serves as a resource for faculty members and administrators regarding faculty governance. The secretary’s duties include, but are not limited to, keeping and posting minutes and records, accepting Nominating Committee reports from the Faculty Executive Board, conducting elections to fill faculty governance positions, and serving on the Institute Policy Committee.

“He brings with him a deep familiarity with faculty governance and a passion for service and for advancing the mission and vision of the Institute,” said President Cabrera.

Mayor began at Georgia Tech in Fall 2006 as an assistant professor. Before that, he was the president and CEO of Powerix Technologies and previously was an assistant research scientist with the S.M. Wu Manufacturing Research Center at the University of Michigan.

At Tech, Mayor served as the chair of the Institute Undergraduate Curriculum Committee from 2014 until 2018. In this role, he oversaw the passage of several major curriculum initiatives, including significant revisions to the undergraduate mathematics programs, the new degree program in music, and revisions to Institute guidelines on multidisciplinary minors, many with joint B.S./M.S. programs being offered for the first time.

Athletics Begins Phase 1 of Facilities Reopening Plan

Following guidance from the Georgia Tech administration, the University System of Georgia (USG), Governor Brian Kemp’s office, and public health officials, Georgia Tech Athletics will begin Phase 1 of its facilities reopening plan on Monday, June 15.

Phase 1 will allow student-athletes in the Atlanta area to use on-campus weight rooms and athletic training facilities on a voluntary basis. With the safety of student-athletes and staff remaining the top priority, several new safety measures will be put in place.

During this first phase, Georgia Tech Athletics staff members will continue to work remotely, with the exception of those who must be on campus to support student-athlete activities and perform other essential tasks. Learn more at c.gatech.edu/athleticsreopening.