



Lab Services Initiative Helps UCSF Facilities Services Support Research

As manager of the Blackburn Lab in the School of Medicine at the University of California, San Francisco, Dana Smith understands the value of research.

At the outset of the university's COVID-19 shelter-in-place order, one of the -80°C ultra-low temperature freezers in Smith's lab failed. "Many of the samples in that freezer are irreplaceable," she says. "For example, just one collection is 4,000 blood samples: three time-points taken over three years from 1,400 individuals in 85 different locations, then collected and sent to our humble freezer. There is no way that study could be repeated."

Thankfully for Smith, the lab is part of UCSF's Lab Services Initiative and participates in freezer temperature monitoring. UCSF Facilities Services was remotely monitoring the freezer and alerted Smith to the problem. "Had we not been participating in the university's Lab Services Initiative, I would have lost the samples from many of our ongoing collaborations," she says.

Facilities Services at UCSF is closely connected to the lab research community as it relates to building infrastructure support for labs. "I couldn't be more pleased about our progress in partnering with the research community," says Assistant Vice Chancellor,



Left: Edward Cekovic, UCSF controls engineer.

Right: Project Coordinator Eugene McIver in the lab area.

Photos by Marco Sanchez, UCSF



Above: Jessica Price, Interim Senior Facilities Manager, prepares to inspect the Cold Room.

Right: Custodian Nabi Chan Tan keeps the floors clean.



Campus Life Services, Jon Giacomi. “We want our facilities department to be viewed as a true ally in making UCSF a great place to do research. We have a ways to go still, but this has been a great start.”

Lab Services is a new branch of Facilities Services dedicated solely to supporting lab equipment and space. “The Lab Services Initiative is an effort to coordinate centrally with all of the labs throughout campus to provide more reliable, cost-effective service to reduce equipment downtime and failure,” says Adam Schnirel, Facilities Services associate director.

Schnirel sits on the university’s 50-member Lab Manager Steering Committee, which includes 18 lab managers from around campus. It also includes representatives from various UCSF organizations, including the Office of Environment, Health and Safety; Information Technology; Supply Chain Management; Logistics; Human Resources; and the UCSF Police Department.

The Lab Manager Steering Committee meets once a month to discuss topics that impact researchers at UCSF. Its mission is to ensure that the research community has a voice in the development and implementation of policies, operations, and regulations pertaining to laboratory research.

Fraser Conrad, a project and policy analyst and manager in the Marks Lab at Zuckerberg San Francisco General Hospital and Trauma Center, says Schnirel has been an invaluable asset to lab managers. “In many ways, the Lab Services Initiative itself is a very significant part of that,” Conrad observes.

Conrad currently cochairs the Lab Manager Steering Committee with Kari Herrington, a specialist at the Nikon Imaging

Center at UCSF. Because equipment maintenance is expensive for labs in terms of both time and money, the full financial costs are often not accounted for in grant funding. “This initiative is a huge relief in that area, both in practical terms and with regard to mental stress,” he says. “Keeping freezers seismically safe, powered, and at temperature 24 hours a day is essential to any group with cryogenic storage needs.”

Conrad notes that having Facilities Services provide maintenance for important lab infrastructure frees up lab managers to spend more time managing the labs and allows researchers to work on research projects.

THE EVOLVING LAB SERVICES INITIATIVE

UCSF’s Lab Services Initiative began in 2019 and is directed by the Lab Managers Steering Committee. Facilities managers and campus engineers play a vital role in assessing and repairing lab infrastructure. Over the years, UCSF Facilities Services has coordinated with labs for the maintenance, repair, and testing of eyewash stations, cold rooms, fume hoods, biosafety cabinets, autoclaves, freezers, and more. Today, the Lab Services Initiative provides:

- Monitoring for 137 freezers and testing for two software applications and one hardware application in more than 35 different labs

- Free seismic bracing for common lab equipment, including gas tanks, incubators, freezers/refrigerators, Pyxis units, biosafety cabinets, and more
- Assessment of emergency power, including a review of electrical plans and existing “red” emergency power plugs, and whether the lab needs additional emergency power capacity

Smith says she has a close relationship with the facilities managers and engineers who work with her lab. “During a recent ‘refresh’ of facilities in my building, I helped coordinate communication for the different labs in my part of the building.” That relationship helped ensure that painting, floor replacement, seismic bracing, cold room replacement, and liquid nitrogen relocation went smoothly.

The strong relationship between Facilities Services, the Lab Managers Steering Committee, and lab personnel has played a vital role in supporting research during the COVID-19 crisis. Without access to their labs, lab personnel have relied on facilities staff for the following:

- Regular temperature monitoring for -80°C ultra-low temperature freezers
- Providing building access for deliveries and coordinating with the UCSF Police Department to ensure that lab gases are available for essential equipment
- Leading COVID-19 essential maintenance and small projects to support lab alterations that assist with COVID-19 research
- Providing enhanced cleaning for high-touch areas through labs and buildings
- Connecting lab issues with the Emergency Operations Center through Facilities Services leadership

Schnirel says UCSF Facilities Services is committed to helping research labs moving forward. “We’re going to continue to find ways to make lab research support easy to understand, cost effective, and efficient,” he says. “We also want to communicate more effectively with labs and researchers about lab infrastructure, project requirements, and the services we can provide. We’ll also continue to advocate for standard details and building permits for labs, gas lines, electrical/low voltage, seismic bracing, and more.”

ALSO HAPPENING AT UCSF: MANAGING CAMPUS BUILDINGS

When San Francisco joined five Bay Area counties to issue shelter-in-place orders on March 17, 2020, it quickly became apparent that it wouldn’t be business-as-usual on the UCSF campus. And, as long as the virus remains a threat, it’s also apparent that it won’t be business-as-usual when students and employees return.

Following that initial shelter-in-place order, many buildings on the sprawling campus in the heart of San Francisco were soon empty. UCSF Facilities Services reacted by adjusting the heating, ventilation, and air conditioning systems while also restricting building access to main entry points that require badge access, thus limiting the need for security personnel.

“Our goal was to not waste UCSF’s resources by heating and cooling spaces that are empty,” says Paul Landry, interim director of engineering and utilities. He emphasizes that lab spaces, fire alarms, and fan control operations will continue as normal.

The plan to “power down” the buildings as much as possible was developed in conjunction with the university’s Office of Environment, Health and Safety, the campus fire marshal, and the team of professional engineers at UCSF Facilities Services that operates the buildings on a daily basis.

“Our team made recommendations to adjust HVAC and building security,” says Schnirel. “Other changes were recommended by the university’s Emergency Operations Center or as a result of changes at the city and county level.”

Although San Francisco extended its shelter-in-place order through the end of May, Schnirel says the Facilities Services team has continued to plan for the first phase of employees returning to campus. “The work environment is going to change,” he explains. “We are partnering with the university’s Emergency Operations Center and our marketing team to implement new guidance and signage regarding the need for physical distancing in areas such as elevators, classrooms, and auditoriums. We are also developing posters, flyers, and digital signage explaining what healthy buildings look like in the COVID-19 era.”

Schnirel says that facilities managers will also conduct virtual brown bag sessions or town halls to educate staff about this new normal. “Our work environment has changed, and our primary goal is to keep the campus community safe. We will continue to adjust our physical workspace as new information becomes available and communicate those changes to our campus community.”

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