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Health Care

# Biotech adapts to new working conditions in the age of Covid-19

Dr. Gordon Lithgow, professor and vice president of academic affairs at the Buck Institute

JIM HUGHES PHOTOGRAPHY

By Alisha Green
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The Novato-based Buck Institute is no stranger to dealing with crises. The independent research institute team, which focuses on studying aging, has had to think through the consequences of earthquakes, fires, and power outages in recent years and how to adapt their operations in each case. In that sense, at least, they were somewhat prepared for the Covid-19 pandemic.

But even though infectious disease experts said something like this pandemic would come at some point, the suddenness of the new coronavirus has been "a big surprise," said Dr. Gordon Lithgow, professor and vice president of academic affairs at the Buck Institute.

The Buck Institute is among the Bay Area biomedical organizations and companies now trying to adapt rapidly amid the coronavirus pandemic, finding ways of applying their teams' expertise to the coronavirus response while keeping staff safe.

At the Buck, one pleasant surprise amid it all has been just how adaptable the more than 200-person team has proven to be.

The Buck has mandated that only 25% of the staff for any of its laboratories be present at any given time. When they are not in the lab, people whose jobs are normally at the workbench are now finding ways to apply their talents from home, including reviewing literature and thinking about how their knowledge of aging could be applied to combatting the coronavirus, which poses an increased risk for people age 60 and older.

"It's a complete call to arms," Lithgow said. "You just think, is there anything that we can do to help the situation?" And the team isn't deterred by spending less time in the lab: "Science is moving forward, even if it's not experiments," Lithgow added.

For GigaGen CEO and co-founder David Johnson, the shelter-in-place orders initially posed a major hurdle. South San Francisco-based GigaGen, which focuses on making antibody therapies, had started working on a drug to treat the new coronavirus in February, Johnson said.

But in March, GigaGen's landlord told the 36-person company they would have access only for "minimum basic operations" starting the following day when the local shelter-in-place order took effect.

"We shut down a lot of experiments, frankly a lot of experiments which had to do with coronavirus," Johnson said. "It probably cost hundreds of thousands of dollars which could have been avoided if we had been given some sort of warning. Even 48 hours would have made a big difference."

Their landlord's guidance was incorrect, too, since GigaGen falls into the category of essential businesses allowed to remain operating. The company eventually reached local authorities who verified that, but Johnson said doing so took enlisting the help of biotech trade group Biocom. One of his takeaways from the predicament has been that having a direct line to local authorities going forward would save "a lot of time and headache," he said.

At the San Francisco-based Gladstone Institutes, an independent research institution affiliated with the University of California, San Francisco, they made contingency plans early on as the pandemic spread around the world.

They reduced their operations before shelter-in-place orders were issued and now restrict site access to only people who are working on critical research, such as the Covid-19 response, managing mouse colonies and cell lines, and maintaining the operations and security of the building. They've gone from about 450 people being at Gladstone on a daily basis to less than 50 people rotating through the building on any given day during the work week.

While some of the Gladstone research areas have been ramped down, they've ramped up work on responding to the new coronavirus since January, said Dr. Deepak Srivastava, president of the Gladstone Institutes. They are making progress on the diagnosis, treatment and prevention, he said.


Dr. Deepak Srivastava, president of the Gladstone Institutes

GLADSTONE INSTITUTES

They've built a new space over the past few weeks for growing and experimenting with the live coronavirus in human cells in a dish and in animals. It builds on prior experience pivoting quickly to address health emergencies, including their focus on battling HIV in the early 1990s.

"It's part of our culture; it's part of what makes this model so unique is that we're able to do that effectively," Srivastava said. Teams from across Gladstone have come together "quite organically," he added, "simply because everybody is motivated to make an impact for humanity."

*Alisha Green is a Santa Cruz-based freelance writer.*