

School of Medicine launches COVID-19 testing lab to improve capacity

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The new COVID-19 testing being done at the medical school will save time from having to ship samples to the state lab in Baton Rouge. The goal is to do about 100 tests a day, with results available within 24 hours. Photo by James Zanewicz.

Tulane University has added a second avenue for COVID-19 testing, this one taking place at a Tulane School of Medicine lab where results can be processed within a day.

The test is identical to the PCR test being used by the Centers for Disease Control (CDC) and is another way that Tulane is working to ease the testing crisis and stop the spread of COVID-19, which has hit the New Orleans area especially hard.

Earlier this week, a laboratory based at Tulane Medical Center in partnership with LSU and UMC-LCMC began conducting a different new test for COVID-19 that can yield results within four hours. Researchers at the HCA-TMC Laboratory ran its first set of tests using the Cobas 6800 analyzer over the weekend and is now capable of running nearly 200 tests a day on patients at both Tulane Medical Center and University Medical Center.

The testing being done at the medical school will save time from having to ship samples to the state lab in Baton Rouge, where because of demand results can take days, rather than hours, to obtain.

“Tulane’s efforts could help more quickly triage patients to the appropriate section of the hospital, speed up recruitment into clinical trials for interested patients, and even, over time, provide the ability to determine whether viral loads are affected by various interventions,” said Dr. Dahlene Fusco, an infectious disease specialist at Tulane University School of Medicine. “This information is crucial in our understanding of how to best treat patients.”

The School of Medicine test was initiated by Tulane virologist Bob Garry and his team in collaboration with Drs. Xiao-Ming Yin and Di Tian in the Department of Pathology. It is based on the PCR (Polymerase Chain Reaction) test being used by the CDC, which determines a positive or negative diagnosis through a nasal swab.

For now, the test is available only to members of the Tulane medical community who show symptoms of COVID-19, such as coughing, respiratory struggles and fever. They include patients, health care providers, faculty, staff, residents and students. The goal is to do about 100 tests a day, with results available within 24 hours.

Eventually, Tulane hopes to double the number of tests and, if possible, extend their availability to the community.

Garry, who played an integral role in test development during the Lassa and Ebola crises, said Tulane’s ability to offer the test is a significant achievement, given the complex and ever-changing regulatory environment under which the nation’s medical community is operating.

“Because it’s an in-house test, we don’t need to send samples to a central lab to wait for the result,” Garry said. “It’s not rocket science but it does take a supply chain which is challenging but getting better.”

Garry facilitated the test in collaboration with the Pathology Department, which has validated and is administering the test in a lab certified by the Clinical Laboratory Improvement Amendments (CLIA) which ensures quality lab testing.

Patrice Delafontaine, executive dean of the School of Medicine, said the availability of CLIA-certified lab in pathology was essential in getting the COVID-19 testing lab up and running.

“Dr. Lee Hamm (dean of the School of Medicine) and I felt it was critical to organize this effort very quickly,” he said, “and the extraordinary expertise in virology at Tulane, in particular through Bob Garry and his program, provided the most efficient method to get this done.”