

Beaumont researchers develop COVID-19 test that can detect virus in saliva, blood or urine in 45 minutes

A team led by Beaumont Health researchers, Laura Lamb, Ph.D. and Michael Chancellor, M.D at the Aikens Research Center at Beaumont Research Institute has developed a new test to detect COVID-19 via urine, blood, saliva or a mouth-swab sample in just 30-45 minutes.

Results were compared to existing technology and found to be highly accurate; the test is also relatively inexpensive to develop and operate.

"We need more testing options if we're going to stage a successful public health response to COVID-19," Dr. Lamb explained. "This is a rapid test that does not require expensive machinery to run and the materials for it are relatively inexpensive. The more options we have for testing, the better."

Dr. Lamb went on to say the test "could be used for screening at the point of risk – such as nursing homes, long-term care facilities, cruise ships, naval ships, within the school and prison systems, and by large employers, for example, at an Amazon warehouse or meatpacking plant. "Because this is an existing test, we are optimistic with the right resources, it could be ready for widespread use within a month or so."

Securing corporate sponsorship to fund development is the next phase of the journey, Dr. Chancellor said.

Results from the most accurate tests currently available take 24 hours or more to process; similarly, those tests are expensive for some hospitals and clinics.

Dr. Lamb and Dr. Chancellor came up with the technology for a rapid, Zika virus detection test about three years ago. While the need for that technology faded, Lamb and team were able to swiftly adapt the technology for COVID-19.

"This just shows you how working in one area can jumpstart research in another," Dr. Chancellor said.

The detection test, Lamb explained, builds on recommendations from Anthony Fauci, M.D., immunologist and director of the National Institute of Allergy and Infectious Diseases since 1984, that rapid testing and tracing are the keys to containing the coronavirus.

This important study by Dr. Lamb and Dr. Chancellor recently appeared in the peer-reviewed, leading medical journal [PLOS ONE](#)

More than 10,000 scientists from around the world have already downloaded the Beaumont research team article. Additionally, Dr. Lamb and Dr. Chancellor are sharing their work and collaborating with researchers from Prague to Africa to South America via video conference.