

SGI-DNA Equipping Researchers With Critical Tools to Combat Coronavirus Disease (COVID-2019)

Synthetic biology company taking major steps in worldwide effort to put a stop to the SARS-CoV-2 (formerly known as 2019-nCoV) outbreak, including co-funding purchases of BioXp™ 3200 System. SGI-DNA is enabling researchers to quickly print DNA required to discover vaccines and therapeutics.

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SGI-DNA, creators of the BioXp™ 3200 System and Gibson Assembly® Reagents, announces a focused effort to empower organizations to accelerate research focused on creating vaccines for SARS-CoV-2. SGI-DNA is building resources to support partners in the industrial, academic, and government sectors, and will be co-funding purchases of the BioXp 3200 System.

“There is zero time to waste,” said Todd R. Nelson, Ph.D., CEO of SGI-DNA, “which is why we’ve built resources for our partners and are co-funding purchases of the BioXp 3200 for anyone working on a vaccine or therapeutic treatment. Researchers need synthetic DNA and RNA, which the BioXp 3200 can provide in as little as eight hours. We simply don’t have ‘six to eight weeks, or longer’ to wait.”

Nelson continued, “In a matter of a day or two, we have built the genes thought to be critical to the development of successful vaccines against SARS-CoV-2. In addition, we’ve made these tools available in the form of genomic assemblies and DNA libraries, which are useful for generating surface antigen targets, such as the Spike protein.” Having the capability to iterate on druggable targets in a matter of hours will dramatically accelerate the time to market for therapeutics and vaccines.

“I ordered BioXp tiles, completed construction of five vaccine candidates against SARS-CoV-2, manufactured RNA for animal testing, and immunized mice within 8 business days,” said Jesse Erasmus, Ph.D., a molecular virologist at the University of Washington.

“Our goal is that the speed of science outpaces the spread of the virus, and speed is a core strength of the BioXp,” said Dan Gibson, Chief Technology Officer at SGI-DNA and creator of the Gibson Assembly® method, a DNA cloning methodology routinely used by geneticists in vaccine research.

The BioXp 3200 System is the world’s first and only automated gene printer. It empowers researchers to design, build, clone and amplify overnight, and synthesize de novo gene constructs to address specific clinical needs. The BioXp 3200 System is the ideal platform for rapidly iterating DNA constructs and was used by researchers to create vaccines and therapeutics against the H7N9 bird flu in 2013.

SGI-DNA is donating \$50,000 towards the purchase of a BioXp 3200 System for researchers focused on combating coronavirus and other pandemics. Qualified researchers are asked to visit <https://sgidna.com/pages/coronavirus> for further details.

“We had one BioXp customer recently tell us it would have taken 32 Ph.D. students 30 days to do what he did with the BioXp in one afternoon,” said Nelson. “Imagine if every coronavirus researcher had the same capabilities. We could be looking at a vaccine within weeks.”

For more information on the BioXp™ 3200 System and its applications, visit www.sgidna.com.

The Gibson Assembly® Method is also available under commercial license. For more information,



About SGI-DNA

At SGI-DNA, our mission is to develop revolutionary synthetic genomics platforms that accelerate advances in drug discovery, precision medicine, DNA data storage, and industrial design; bridging the gap between the digital and biological worlds. For more information, please visit www.sgidna.com.

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