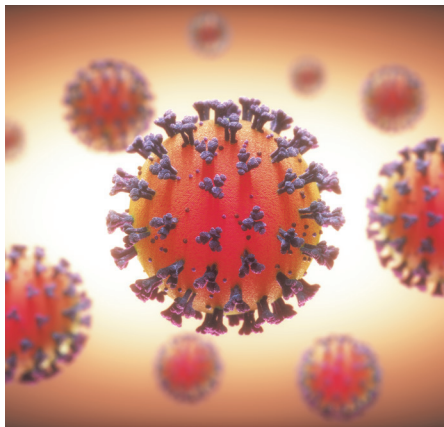


Testing Solutions to Advance Your COVID-19 Clinical Trials

Developing a vaccine or therapeutic in response to the outbreak of the 2019 Novel Coronavirus (COVID-19) requires a laboratory with significant technical and cross-functional experience. Covance Central Laboratories is prepared to support your COVID-19 studies.

Capabilities Specific to COVID-19

Several assays that are specific to COVID-19 are undergoing expedited validation to meet clinical trial testing standards:



Viral Load Testing by qPCR

- ▶ Built on the LabCorp Emergency Use Authorization Diagnostics, which was made available in early March
- ▶ Now available for clinical trials

Viral Neutralization Assay

- ▶ Expected availability for clinical trials in early Q3 2020

COVID-19 Screening/Rapid Detection by PCR

- ▶ Validation will begin immediately following FDA approval of the GeneXpert[®] assay from Cepheid
- ▶ Expected availability for clinical trials 3 weeks following reagent kit availability

Antibody Detection by ELISA

- ▶ Validation has been initiated for IgG and IgA; expected availability for clinical trials in June 2020
- ▶ Additional evaluations of IgM and quantitative serology tests will begin immediately upon availability of kits and reagents and be completed within 6-8 weeks

Assay panels that can be used to exclude other respiratory illnesses are already validated to meet clinical trial testing standards.

- ▶ BioFire[®] FilmArray[®] Respiratory Panel rules out 21 different respiratory illnesses. BioFire Diagnostics is adding COVID-19 to the panel; expanded panel expected to be available for clinical trials 3-4 weeks following reagent kit availability.

Protocol-Specific Assay Customization

Expedited customization of existing assays as required for your protocol and/or molecule:

- ▶ Viral functional assays
- ▶ ELISpot
- ▶ Flow cytometry
- ▶ Infectivity

Extensive Assay Menu

Comprehensive immunology and safety test menu already available for clinical trials:

- ▶ Cytokine panels
- ▶ Kidney function
- ▶ Liver function

Experience in China



- ▶ Access a full suite of immunology, flow cytometry and safety testing at the new, state-of-the-art Shanghai R&D Center that opened in 2019
- ▶ Receive global guidance and local expertise that draws on 20+ years of experience
- ▶ Expect both scientific and operational support

World-Class Global Logistics

Ensure on-time, in-stability transportation and draw on the expertise of 50+ global logistics experts. With multi-layer contingency plans in place, we work around the clock so samples arrive on time.

Covance Global Vaccine Experience and Capabilities

In the past 5 years:



Clinical Indications/
Target Pathogens

Respiratory

(diphtheria, pandemic flu, pertussis, pneumococcal, RSV, seasonal flu, strep A/B, tuberculosis)

Enteric

(cholera, *C. difficile*, *E. coli*, norovirus, rotavirus, *Shigella*, typhoid)

Sexually Transmitted

(chlamydia, CMV, hepatitis B, herpes, HIV, HPV)

Vector/ Zoonotic

(Chikungunya, dengue, malaria, West Nile, Zika, various genetically modified vectors)

Other

(hepatitis, HIB, meningococcal, MMRV, rubella, *Staph. aureus*, tetanus)

GeneXpert® is a trademark of Cepheid

BioFire® FilmArray® is a trademark of BioFire Diagnostics LLC

Learn more at www.covance.com

Covance is a business segment of LabCorp, a leading global life sciences company, which provides contract research services to the drug, medical device and diagnostic, crop protection and chemical industries. COVANCE is a registered trademark and the marketing name for Covance Inc. and its subsidiaries around the world.

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