

Laboratory Solutions to Advance Your COVID-19 Clinical Trials

Developing a vaccine or treatment for COVID-19 requires a laboratory partner with cross-functional, forward-thinking scientific expertise and the skill to conduct clinical trial testing during a global pandemic.

Global Reach: Efficiency Without Compromise

Covance Central Laboratory Services (CLS) leverages innovation and automation to deliver solutions that support your COVID-19 studies. Five central labs are strategically located around the world, and use uniform SOPs, reagents and instrumentation to generate consistent, combinable data.

COVID-19 Testing Capacity: Proactive Investments and Strategic Oversight That Anticipates Testing Volume

- ▶ Expanding menu of COVID-19 laboratory assays and expedited assay validation
- ▶ Multiple COVID-19 testing methodologies are supported by technology and platform investments
- ▶ Redundancy of key platforms helps ensure turnaround times are met
- ▶ Sample storage capacity increased to meet anticipated volume

Accelerated Assay Development: A Comprehensive Testing Menu for COVID-19 Clinical Trials

Molecular and Genomic Testing



- ▶ High-throughput quantitative RT-qPCR for viral load measurement (respiratory, saliva, plasma)
- ▶ Qualitative RT-PCR (respiratory, saliva)
- ▶ Cepheid GeneXpert® RT-PCR (qualitative detection of SARS-CoV-2)
- ▶ BioFire® RT-PCR (22 respiratory pathogen panel, including SARS-CoV-2)
- ▶ Sequencing assays (viral isolates, ACE2 variants, HLA genotyping)

Immunology Testing



- ▶ Qualitative ELISA for seropositivity (available: IgG spike, IgA, IgM, IgM S1 protein)
- ▶ Quantitative ELISA (future: IgG)
- ▶ Semi-quantitative titer-based methods (future: Anti-SARS-CoV-2 IgG, IgM, IgA)
- ▶ Immunoassays for inflammation – cytokine panels
- ▶ ELISPOT to measure cytokine response

Cell-Based and Microbiology Assays



- ▶ Viral culture
- ▶ Neutralizing antibody assays (available: pseudovirus; future: wild-type virus)
- ▶ ELISPOT: breadth, magnitude and specificity of B and IFN gamma T-cell responses directed against SARS-CoV-2 antigens or peptides; other cytokines available upon request
- ▶ BSL3 laboratory capability

Flow Cytometry Assays



- ▶ Main lineage immunophenotyping and activation (Neutrophils, T, B, monocytes, MDSC, NK cells, regulatory cells, Tfh)
- ▶ Custom panels for activation/maturation markers, memory differentiation and exhaustion
- ▶ Panels for cellular activation and cycling (Ki67)
- ▶ Functional testing by intracellular cytokine staining following in vitro activation of PBMC (IFN gamma, IL-2, TNFa, Granzyme B, Perforin, CD107a, MIP1b, IL-17)

Covance CLS is Committed to the Critical Search for COVID-19 Treatments and Vaccines

Accelerated Study Startup

Rely on dedicated study startup teams that can decrease standard database creation timelines by up to 50%. With Covance CLS, you can get your study up and running, faster.

Unparalleled Logistics Performance

Globally based, skilled logistics team monitors sample shipments and draws on unique courier relationships to implement contingency plans that support on-time and in-stability shipment.

Kits received in stability | 99.2% (2019) | 97.3% (Q2 2020)* | 98.3% (Nov YTD 2020)

*Q2 2020 characterized by worldwide flight cancellations, border closings due to global pandemic

Alternative Sample Collection Sites

Reliable options for patients traveling to investigator sites are no longer merely a convenience. Patient-centric alternatives are becoming mandatory to address the needs of the most vulnerable patients. Covance offers several options for patients to choose from:

Home Health Phlebotomists | Home Health Nurses | LabCorp Patient Service Centers (US)

Covance Experience

COVID-19 Clinical Trial Awards

Covance Total	Central Lab	Bioanalytical Services
399	103	113

Covance internal metrics, 11/11/2020

CLS Vaccine and Infectious Disease Experience

5-Year Experience	Studies	Patients	Sites	Countries
Vaccines	68	46,392	1,340	53
Infectious Disease	457	158,010	12,848	76

Covance internal metrics, 2015-2019

Learn more about our COVID-19 drug development and diagnostic solutions by visiting www.covance.com/coronavirus-disease-covid-19.html

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