

Pipeline COVID-19 diagnostic and screening solutions

PRODUCT NAME	COMPANY / UNIVERSITY NAME	DEVELOPMENT PARTNER	APPLICATION(S)	DESCRIPTION	TIME TO RESULT	SPECIMEN
2-Plex Protease Multiplex Panel	ProAxis Ltd		Severity Prediction	An assay that enables simultaneous detection of two key proteases (neutrophil elastase and proteinase 3) from SARS-CoV-2 virus in patient's sample. These proteases have been associated with COVID-19 symptom severity.	N/S	N/S
3D Printed COVID-19 Sensor	Carnegie Mellon University	University of Pittsburgh Medical Center; University of Pittsburgh	Antibody Detection	It utilizes 3D printed technology with gold micropillar electrodes for providing a larger surface area for electrochemical reaction. A very small drop of blood from a fingertip is placed on the sensor, which triggers an electrochemical reaction that detects spike S1 protein and receptor binding domain (RBD), two COVID-19 antibodies. The 3D printed sensor is embedded into a simple handheld microfluidic device, which is connected to a smartphone through an easy-to-use interface.	10 sec	Blood
3D-Printed Nasal Swabs	University of Nebraska		Sample Collection	New type of nasal swab made up of polyethylene terephthalate glycol filament, a food-grade plastic material, and produced using a filament-based 3D-printer.	-	Nasal swab
AbC-19™	Abingdon Health Ltd	BBI Solutions OEM Ltd; CIGA Healthcare Ltd; Omega Diagnostics Group Plc; University of Oxford	Antibody Detection	Lateral flow test to detect the presence of IgG neutralizing antibodies specific to the SARS-CoV-2 virus. It creates an antibody certificate via a smartphone app. Sensitivity: 98.03% Specificity: 99.56%	20 min	Whole blood
Acu-Corona 2.0	Acumen Research Laboratories Pte Ltd.		Nucleic Acid Detection	RT-PCR test designed to qualitatively detect the presence of RNA virus-specific to SARS-CoV-2. It consists of two kits, one containing an RT-PCR enzyme and nuclease-free water and another one containing some array plates with printed and dried RT-PCR primers, dual-labeled hydrolysis probes, and plate seals. It can also detect Alpha and Omicron variants.	4 h	Nasopharyngeal and Oropharyngeal swab

AffiDX SARS-CoV-2 Lateral Flow Rapid Antigen Test	Avacta Group Plc	Mologic Ltd	Antigen Detection	Antigen lateral flow test that detects the antigens specific to SARS-CoV-2 virus. It also detects B117 and D614G variants of coronavirus. Sensitivity: 98% Specificity: 99%	20 min	Nasal swab
Affimer-Based BAMS Coronavirus Antigen Test	Avacta Group Plc	Adeptrix Corp; Bruker Corp; Cytiva; Liverpool School of Tropical Medicine	Antigen Detection	Laboratory-based test that detects the presence of antigens specific to the SARS-CoV-2 virus. It is performed on bead-assisted mass spectrometry (BAMS) platform, which combines enrichment of the sample to improve sensitivity with the power of mass-spectrometry to improve specificity.	N/S	Saliva, Nasopharyngeal swab or Serum
Affimer-Based Point-Of-Care Rapid Test - COVID-19	Avacta Group Plc	Cytiva; University of Glasgow	Antigen Detection	Lateral flow test that detects the presence of SARS-COV-2 viral antigen (detached spike protein and the intact virus particle) by using Affimer reagents. It is performed on a point-of-care test strip platform.	N/S	Saliva or anterior nasal swab
Agilent Dako SARS-CoV-2 IgG ELISA Kit	Agilent Technologies Inc		Antibody Detection	Qualitative two-step indirect ELISA for the detection of immunoglobulin G (IgG) antibodies specific to SARS-CoV-2 S1 RBD protein. It also aids in identifying individuals with an adaptive immune response to SARS-CoV-2 indicating recent infection. Sensitivity: 98.9% Specificity: 98.8%	N/S	Serum or Plasma
AI Med Assist	Sycal Technologies SL		Severity Prediction	Medical assistant for the diagnosis of COVID-19 and the prediction of the evolution of each patient. Making use of Artificial intelligence and Big Data technologies, it analyses chest X-ray images together with 7 key factors of the clinical history of the patient to provide the result of the diagnosis (positive or negative) and the probable evolution (low, medium or high severity), allowing professionals to plan the resources needed for the future treatment.	10 sec	Chest X ray
AI MedAssist	Sycal Technologies SL		Disease assessment & Severity Prediction	AI MedAssist, an AI-based tool, diagnoses COVID-19 and predicts the evolution of each patient, analyzing a chest X-Ray image and 6 factors of the clinical history of the patient.	N/S	N/S

AIOD-CRISPR Assay - COVID-19/Influenza A/Influenza B	University of Connecticut		Nucleic Acid Detection	Diagnostic test that targets the nucleoprotein (N) gene of SARS-CoV-2, being able to detect few copies of the nucleic acids (DNA or RNA). The AIOD-CRISPR assay system uses a pair of Cas12a-crRNA complexes to bind two different sites, which are close to the recognition sites of primers in the target sequence. On one hand, when the Cas12a-crRNA complexes bind the target sites, the Cas12a endonuclease is activated and cleaves ssDNA-FQ reporters, generating strong fluorescence signals. On the other hand, amplified products generated during the recombinase polymerase amplification continuously trigger CRISPR-Cas12a based collateral cleavage activity.	20 min	N/S
Amira	LumiraDx Ltd		Antigen Detection	Mass-screening and home point of care testing system that consists of battery operated, disposable device, Amira COVID-19 test and phone/tablet application for test management and reporting.	< 12 min	N/S
Antibody Response Test - COVID-19	Cardiff University		Antibody Detection	Designed to measure the immune response of the antibody and T cells to SARS-CoV-2. It is used to determine antibody response both to infection and vaccination, including study if vaccination can protect against SARS-CoV-2 mutant variants.	24 h	Blood
AP-23 Point of Care System	Fable Biyoteknoloji San ve Tic AS		Biomarker Detection	Well-automated multi-spectral screening system designed to detect the presence of biomarkers specific to SARS-CoV-2 virus using cloud computing AI system. It uses data from a simple measurement based on multi-spectral screening technology to calculate the presence or concentration of the desired product in a biological liquid as the solution to be used.	30 min	Nasopharyngeal swab
APTAKIT	Lincbiotech		Antigen Detection	Rapid lateral flow chromatography test for SARS-CoV-2 detection in human and animal samples, using new high-affinity aptamers to the Spike and Nucleocapsid protein developed by Lincbiotech.	15 min	Nasal swabs and Saliva
AptameX	Achiko AG	Regenacellx SL	Antigen Detection	Point of care test to detect spike protein of Covid-19 by using DNA aptamers and gold nanoparticles. The test is intended to be used with their mobile app Teman Sehat (Health Buddy), to deliver a mobile telehealth and digital passporing service. Sensitivity: 91% Specificity: 85%	< 1 h	Nasopharyngeal swabs and Saliva
Automated Multiplex Diagnostic System - Respiratory Infectious Diseases	Hong Kong Polytechnic University		Nucleic Acid Detection	Fully automated point-of-care genetic testing system designed to detect up to 40 infectious respiratory pathogens (including COVID-19) in a single test. The System adopts patent-pending microfluidic and biochemical technologies that achieve ultra-sensitive detection (down to 5 gene copies) and simultaneous differentiation of various pathogens with extremely high specificity.	1 h	N/S

AVA IVD Device	Attana AB		Antibody Detection	Attana Virus Analytics (AVA) platform, an <i>in vitro</i> diagnostics (IVD) tool. The biosensor instrument detects and measures SARS-CoV-2 IgG antibodies.	N/S	Serum, Whole blood
BELMONITOR COV-2	Pharmact AG		Antigen Detection	Mouthwash based rapid point of care test to detect the presence of antigens specific to Covid-19. It is performed by combining the throat and mouth lavage with a nasal swab. A solution of genetically engineered binding proteins is added, and a specific color reaction indicates infection with SARS-CoV-2.	N/S	Saliva and Nasal swab
BLI-ISA Assay - COVID-19	University of California Santa Cruz		Antibody Detection	Biolayer Interferometry Immunosorbent Assay (BLI-ISA Assay) is designed for the quantitative detection of antibodies using fiber-optical biosensor. BLI is a fiber optics-based biophysical technique designed to measure the affinity between biological molecules. White light is shone down a fiber optic biosensor and the interference between light reflected off two layers - a reference layer and a biological layer - is measured. Binding of molecules to the biosensor surface results in a real-time signal due to the shift in the wavelength of the reflected light.	< 20 min	Blood and Serum
Blood Test - COVID-19	Nightingale Health Ltd		Severity Prediction	Finger prick blood test detects the presence of 25 novel blood biomarkers specific to COVID-19 disease. It acts as risk markers for developing severe COVID-19 infection before contracting the virus.	N/S	Blood
Breathspec COVID-19	IMSPEX Diagnostic Limited		VOC Detection	The Breathspec® uses Gas Chromatography-Ion Mobility Spectrometry (GC-IMS) technology to analyse the volatile organic compounds (VOCs) in people's breath. The remaining technical aspect, however, is the development, testing and validation of a new graphical user interface (GUI) which must be modified to comply with IEC 62304.	< 5 min	Breath
CAMPTON COVID-19 RT-LAMP Test	CAMPTON Diagnostics UG		Nucleic Acid Detection	RT-LAMP test designed to detect the presence of SARS-CoV-2 E gene and orf1ab gene. It is performed on CAMPTON Reader 100 and it provides fully automated detection via enzymatically induced redox cycling on an electrical biochip. It consists of specifically shaped ready-to-use cartridges.	30 min	Nasal and Oropharyngeal swab
CareStart COVID-19 Antigen Test	Access Bio Inc		Antigen Detection	Lateral flow immunochromatographic assay for the qualitative detection of the nucleocapsid protein antigen from SARS-CoV-2. Results are indicated by the presence of colored lines in the control line region "C" and test line region "T".	10 min	Nasopharyngeal swab or anterior nasal swab
Clip COVID Rapid Antigen Test	Luminostics Inc	Sanofi	Antigen Detection	Smartphone-based rapid lateral flow immunoluminescent assay designed to quantitatively detect nucleocapsid protein antigen specific to novel coronavirus (2019-nCoV). It comprises of a cartridge and a Clip analyzer and it utilizes monoclonal antibodies (mAbs) specific to SARS-CoV-2 antigens as diagnostic reagents. After the addition of the sample into the cartridge, an iOS/Android app (Clip COVID App) runs the test and the result is displayed on the smartphone screen.	30 min	Nasopharyngeal/Nasal swabs, Nasal aspirate, Saliva and Sputum

Companion Diagnostic Assay - Stenoparib	Allarity Therapeutics		Companion Diagnostic	Stenoparib - Companion Diagnostic Assay is intended to identify breast cancer patients for treatment with Stenoparib. It is designed to monitor Stenoparib responses to treatment in patient's sample with breast cancer by identifying biomarkers thereby aids to guide in treatment planning. It is based on Drug Response Predictor Technology. It is also indicated in prostate cancer, recurrent ovarian cancer and pancreatic cancer and COVID-19 disease.	N/S	N/S
CO-Prep	PrimerDesign Ltd		Sample Preparation	CO-Prep is an instrument for sample handling automation. It is designed to facilitate sample handling and automate the liquid handling steps of PROMate test.	-	-
Corona Self-Test	Midge Medica GmbH	ams AG	Nucleic Acid Detection	Corona Self-Test is a rapid test designed to detect the presence of genes specific to SARS-CoV-2. It provides results using a smartphone app with AS7341L sensor.	15 min	Blood
COVChest	Topazium Artificial Intelligence		Patient screening and disease detection	Platform using deep learning algorithms to detect and localize radiological signs associated to COVID-19 on frontal chest X-rays. Our system can not only process digital radiographs but also chest X-rays images obtained even by standard mobile devices or cameras.	1 sec	Chest X ray
COVID-19 Antigen Flu A Flu B Multiplex RDT	AnteoTech Ltd		Antigen Detection	Rapid antigen test intended for the diagnosis of coronavirus (COVID-19) disease, Influenza A and Influenza B infection, based on lateral flow method and AnteoBind Activated Europium Technology. Its test kit includes nasopharyngeal swab, dropper bottle, and test cassette.	< 15 min	Saliva and Mucous
COVID19 COMPLETE	Genspeed Biotech GmbH		Antibody/Antigen Detection	A combined antibody/antigen ELISA test that fuses two individual GENSPEED test chips for antibody and antigen testing into a single test chip.	15 min	Whole blood + Nasal or Throat swab
COVID-19 Direct Saliva Test	CoSara Diagnostics Pvt Ltd		Biomarker Detection	COVID-19 Direct Saliva Test is designed to detect the presence of biomarkers specific to SARS-CoV-2. It can detect Omicron variant.	N/S	Saliva
COVID-19 IgG Antibody Test	CAMPTON Diagnostics UG		Antibody Detection	Rapid, point of care serological test designed to detect the presence of IgG antibodies specific to SARS-CoV-2 nucleocapsid protein and SARS-CoV-2 spike protein antigens using an μ ELISA. It is performed on Reader 100 System.	13 min	Serum or Whole blood
COVID-19 Nucleic Acid Diagnostic Kit	GeneOne Diagnostics Corp	Kaohsiung Medical University Chung-Ho Memorial Hospital	Nucleic Acid Detection	TaqMan probe real-time based RT-PCR test designed to detect the presence of RNA specific to SARS-CoV-2, using RT-PCR Technology.	1 h	Bronchoalveolar Lavage, Nasopharyngeal fluid, Sputum, Serum

COVID-19 RNA Test	University of Birmingham		Nucleic Acid Detection	Reverse Transcriptase Free Exponential Amplification Reaction technique (RTF-EXPAR): novel single-step approach for converting viral RNA into DNA combined with Exponential Amplification Reaction (EXPAR), which increases DNA concentration to detectable levels. The method uses a DNA sequence (Binder DNA) that binds to SARS-CoV-2 viral RNA and an enzyme (BstNI) that recognizes the Binder DNA and cuts a short section from it when viral RNA is present. Once this cleavage has occurred, the viral RNA is free to bind to more Binder DNA and the cycle is repeated. The test detects the output of this cycle.	5 min	-
COVIDia - Antibody	GaDia SA		Antibody Detection	Point-of-care lateral flow immunoassay (LFIA) for qualitative detection of anti-SARS-CoV-2-IgM and anti-SARS-CoV-2-IgG antibodies in suspected or pneumonitis patients. Sensitivity: 100% Specificity: 93%	10 min	Plasma, Serum, Whole blood
CoviTact	ViroTact		Virus-encoded Protease Detection	Rapid, point-of-care test to detect the presence of virus-encoded protease specific to SARS-CoV-2, performed on the ViroTact Platform: ViroTact® near-infrared quenched substrate is added to the collected sample and if the essential virus-encoded protease is present, near-infrared light is emitted, which can be detected on a handheld near-infrared detector.	30 sec	Sputum, Saliva and Nasal swab
COV-MUT	NeuroControls GmbH		Nucleic Acid Detection	Neuromorphic identification of DNA/RNA mutations (COVID-19 Virus). The target is to identify hosts which are receptive to virus mutations by identifying potential host genes that could interact with the virus/pathogen via protein-protein interactions.	N/S	N/S
Desktop Testing Device - COVID-19	Qurin Diagnostics BV	Surfix BV;LioniX International BV	Viral Detection	Photonic biochip-based device to detect the presence of SARS-CoV-2 using silicon nitride-based integrated optics technology.	5 min	N/S
Detection Test - COVID-19	Bio Stream Diagnostics	Stream.ML; Merogenomics	Nucleic Acid Detection	Rapid-screening platform that uses Raman spectroscopy technology, uniquely suited to detect viruses and small molecules, and machine learning, well-suited for the analysis of this type of data. It can be run by non-technical lab personnel and it uses less consumables compared to PCR.	30 sec	N/S
DetectX-Cv	PathogenDx, Inc.		Nucleic Acid Detection	Designed to detect the presence of SARS-CoV-2 variants in patient's isolated RNA sample. It is based on Multiplex Mutation Detection PCR Technology. It can detect SARS-CoV-2 variants and it also identifies viral mutation targets. The test is for Research use only, not for Diagnostic use.	< 4 h	Nasopharyngeal and Oropharyngeal swab

Diagnostic Test - COVID-19	The University of Manchester	University of Surrey	Lipid Levels Detection	Detects the lipid levels by using liquid chromatography mass spectrometry. Patients with positive COVID-19 test have lower lipid levels than their counterparts with a negative test.	-	Sebum
Diagnostic Test - COVID-19	Gladstone Institutes	University of California San Francisco	Nucleic Acid Detection	Point of care rapid CRISPR-based assay to detect the presence of RNA specific to SARS-CoV2 by combining it with a mobile phone camera. This assay does not require pre-amplification of the viral genome for detection. The fluorescence is measured with a mobile phone camera in a compact device that includes low-cost laser illumination and collection optics.	15-30 min	Nasal swab
Diagnostic Test - COVID-19	Charite University Hospital of Berlin	The Francis Crick Institute Ltd	Severity Prediction	Mass spectrometry-based test to detect the levels of protein biomarker signatures that vary in quantity depending on disease severity. The test can be used for disease prognosis and/or as an in-hospital diagnostic test, which could provide clarity regarding a patient's condition.	N/S	Blood and Plasma
Diagnostic Test - Long COVID-19	University of Cambridge		Biomarker Detection	Designed to detect the presence of cytokine biomarkers specific to SARS-CoV-2 virus that are produced by T cells in response to infection. As with antibodies, these biomarkers persist in the blood for a long time after infection. The test is intended for the diagnosis and monitoring of long COVID.	N/S	Blood
Diagnostic Test Kit - COVID-19	Medpromresurs		Nucleic Acid Detection	Detects the presence of SARS-CoV-2. It is based on SmartAmp Technology, which allows simple assay design and minimum number of stages in assays. It is cost-effective due to stable temperature and obtains the result at the amplification stage.	N/S	N/S
DiagnoSure COVID-19 IgG/IgM Rapid Test Cassette	Grit Overseas Pte Ltd		Antibody Detection	Lateral flow immunoassay intended for the qualitative detection and differentiation of IgM and IgG antibodies to SARS-CoV-2. Positive results are showed with a colored band.	10 min	Plasma, Serum, Whole blood
Digid Cantisense SARS-CoV-2 Test	Digital Diagnostics AG		Antigen Detection	Biosensor test based on cantilevers that detects the virus presence. The extremely thin silicon cantilevers are integrated onto a microchip and are coated with a capture layer of antibodies that bind to the virus. This binding changes the surface tension and cause mechanical bending of the cantilevers, which generates an electrical signal on the chip.	5 min	Throat swab
Direct-To-PCR Extraction Device	PrimerDesign Ltd		Nucleic Acid Extraction	Facilitates nucleic acid extraction from patient's sample for the diagnosis of novel corona virus infection. This removes the need for some scarce reagents and significantly reduces the number of extraction steps, allowing faster cycle times, higher throughputs and cost savings.	-	-

Drager Antigen Test SARS-CoV-2	Dragerwerk AG & Co KGaA		Antigen Detection	Rapid, point of care, lateral flow immunoassay test for qualitative detection of SARS-CoV-2 nucleoprotein.	15-20 min	Nasal swab
DSA BreathPass™	Deep Sensing Algorithms Ltd Oy		Viral detection	Handheld ultra-fast breath analyzing device for COVID-19 screening. It characterizes the Volatile Organic Compounds (cell level biomarkers created by human metabolism at the onset of a disease) within breath samples, produces predictions for different health conditions based on Deep Computing algorithms and generates results in few seconds. A new person can be tested on average every 2 minutes. The DSA BreathPass can be used through the Mobile Application and Web-UI.	3 sec	Exhaled breath
Dublin-Boston Score	Royal College of Surgeons Ireland	Harvard University; Beaumont Hospital; Brigham and Women's Hospital	Severity Prediction	Predicts the severity of the infection at day 7 by measuring, in the first 4 days, the levels of interleukins (IL)-6 (pro-inflammatory) and interleukins (IL)-10 (anti-inflammatory) and calculating their ratio.	N/S	Blood
Earwax Self-Sampling Device	Trears Ltd		Sample Collection	Home-sampling device intended for ear wax sampling. It is designed to collect the ear wax containing cortisol to measure stress hormone, glucose levels, covid-19 antibodies. Its tip is covered with a sponge of organic material for easy wax collection.	-	Ear wax
EBS 1005	Eurobio Scientific SA		Antigen Detection	Minimally invasive antigen self-test designed to detect the presence of antigens specific to SARS-CoV-2 virus. It consists of a nasal swab to be inserted for only 2 to 3 centimeters into the nose, a reagent, and the test plate. Sensitivity: > 93% Specificity: > 99%	10 min	Nasal swab
EBX-044	Eurobio Scientific SA		Nucleic Acid Detection	Real-time multiplex PCR test for the detection and typing of different variants of the SARS-CoV-2 coronavirus. It allows the detection and screening in two PCR wells of the four currently predominant variants: British, South African, Brazilian and Japanese-Brazilian.	N/S	N/S
EDI Quantitative SARS-CoV-2 Spike Protein IgG ELISA Kit	Epitope Diagnostics, Inc.		Antibody Detection	ELISA test designed for the quantitative measurement of novel COVID-19 human IgG antibody to SARS-CoV-2. It utilizes the microplate-based enzyme immunoassay technique.	30 min	Serum
Electronic Device - COVID-19	Auburn University		Antigen Detection	Electronic device (microchip) based on two-dimensional field-effect transistor biosensors using monolayer tungsten diselenide crystals for the detection of COVID-19 spike proteins. When the virus spike protein interacts with the antibody within the testing device, it impacts the electronic properties of the atomically-thin monolayer 2D material.	N/S	N/S

Ender MOBILE	Ender Diagnostics AG		Nucleic Acid Detection	Mobile point-of-care test for acute COVID-19 cases. It detects the presence of SARS-CoV-2 viral RNA and it is running on a portable decentralized isothermal PCR device.	30 min	Nasopharyngeal swab
EpiSwitch® COVID-19 Severity Test (CST)	Oxford Biodynamics Plc		Severity Prediction	Detects the presence of 3D genomic biomarkers to assess immune health and therefore predict the likely severity of an individual's COVID-19 response ahead of infection.	48-72 h	Blood
EuGeni COVID-19 Saliva Test	AnteoTech Ltd		Antigen Detection	Rapid antigen test designed for the detection of SARS-CoV-2 nucleocapsid antigen. It is based on Lateral Flow and AnteoBind Activated Europium Particle Technology. Its test kit includes swab, dropper bottle, and test cassette. Sensitivity: 97.3%	15 min	Saliva
EurobioPlex SARS-CoV-2 SNPs Test	Eurobio Scientific SA		Nucleic Acid Detection	Multiplex PCR test designed to detect the presence of two genes and L452R (Californian and Indian variants), E484K (South African and Brazilian variants) and E484Q (Indian variant) mutations.	N/S	Nasopharyngeal swab
EU-ULTRACOV	DASEL SL		Disease assessment	Ultrasound scanner for the evaluation of pulmonary condition. It is equipped with intelligent self-guided sensors and algorithms that simplify the examination process and the interpretation of the images, facilitating quicker and more efficient decision making.	N/S	N/S
FastPCR CoV/Flu Multitest	Selfdiagnostics		Nucleic Acid Detection	Mobile molecular, point of care diagnostic, isothermal PCR-based test to detect the simultaneously presence of nucleic acid specific to novel coronavirus or influenza. It is based on NINAAT (Non-Instrumented Nucleic Acid Amplification) Technology.	40 min	Nasal/ Nasopharyngeal swab or Saliva
Gazelle POC Device - COVID-19 Assay	Hemex Health Inc	Mylab Discovery Solutions Pvt Ltd	Biomarker Detection	Fluorescence Immunoassay (FIA) and Electrophoresis-based diagnostic solution designed to detect the biomarkers specific to SARS CoV-2 virus in the patient's sample. It uses the test assays from Mylab and the Gazelle POC testing platform from Hemex.	N/S	N/S
GenViro Saliva COVID-19 Swift Kit	PharmaTech Solutions Inc		Viral Detection	Point-of-care test to measure the viral load screening in novel coronavirus infection. It consists of 1 test strip, an interface sleeve adapter, one saliva collection vessel, diluent and package inserts, and it only works with GenViro! Swift Meter.	10.5 sec	Saliva
GenViro Screening COVID-19 Swift Kit	PharmaTech Solutions Inc		Viral Detection	Point of care screening kit to detect the novel coronavirus (COVID-19). It includes GenExpicient (universal biosensor) to clean and disinfect the GenViro meter.	15 sec	Whole blood
GNA Octea SARS-Cov-2 test kit	GNA Biosolutions GmbH		Nucleic Acid Detection	Portable diagnostic device, comprised of an instrument and disposable 8-well chips, to detect the presence of SARS-CoV-2. The Pulse Controlled Amplification (PCA) technology used is based on ultrafast amplification cycles driven by short electrical pulses.	15-20 min	N/S

gRAD Test - COVID-19 IgG/IgM	BioPorto Diagnostics AS		Antibody Detection	Generic Rapid Assay Device (gRAD) is a patented and optimized generic lateral flow strip with two printed lines: a test line, where biotinylated antibody (or other biotinylated proteins) will bind, and a control line. It doesn't require special equipment to run. The company is now adapting this technology for the detection of SARS-CoV-2.	15 min	N/S
Graphene-Based Diagnostic Test - COVID-19	University of Illinois at Chicago		Antigen Detection	The test consists in a combination of graphene sheets with an antibody designed to target the spike protein on the coronavirus. The vibrations of the antibody-coupled graphene sheet changed when treated with a COVID-positive sample, but not when treated with a COVID-negative sample or with other coronaviruses. Vibrational changes are measured with a device called a Raman spectrometer.	5 min	Saliva
GSD NovaPrime RNA Extraction AE1/AE2 Kit	Eurofins NTD LLC		Nucleic Acid Detection	The kit isolates viral RNA using magnetic-bead extraction - specifically validated for use with the KingFisher™ Flex System automation platform. It starts with lysis and inactivation of viral particles, followed by the binding and purification of viral RNA, and ends with elution of RNA from magnetic beads.	N/S	Nasal, Nasopharyngeal and Oropharyngeal swabs
GSD NovaPrime SARS-CoV-2 Mplex FLA (Sanger) Kit	Eurofins Scientific SE		Nucleic Acid Detection	Detects the presence of two n-gene fragments (N1 & N2) specific to SARS-CoV-2 virus. Its multiplex reactions include a human housekeeping gene as an intrinsic control in RNA extracted from sample. It utilizes Fragment Length Analysis principle on Sanger sequencing instruments.	N/S	Nasopharyngeal swab
GSD NovaType II SARS-CoV-2 Kit	Gold Standard Diagnostics, Inc.	Eurofins Technologies Kft	Nucleic Acid Detection	Detects the presence of new COVID-19 UK, South Africa, and Brazil variants. It allows parallel discrimination between S gene wildtype and mutations N501Y, E484K, and K417N, with MGBEQ Quencher. The kit contains RT-PCR Enzyme Mix, Primer-Probe-Mix, RNase P Internal Positive Control.	< 2 h	Nasal, Nasopharyngeal, Oropharyngeal, BAL, Pharynx gargle
GSD NovaType III SARS-CoV-2 RT-PCR	Eurofins Scientific SE		Nucleic Acid Detection	Multiplex RT-PCR Assay for the qualitative detection and discrimination of relevant mutations associated with SARS-CoV-2 variants: B.1.617 (India), B.1.351 (South Africa), P.1 (Brazil) and B.1.427 / B.1.429 (California/USA). It is a confirmatory test for detection of concerning RNA mutations within the S gene of the SARS-CoV-2 genome which are suspected to affect efficacy of vaccination or transmissibility of the virus.	N/S	Nasal lavage/smear, Nasopharyngeal lavage/smear, Oropharyngeal swab
Human COVID-19 Antibody detection ELISA	KRISHGEN BioSystems		Antibody Detection	Designed to qualitatively detect the presence of IgG antibody specific to human SARS-CoV-2 nucleocapsid protein or spike protein. It is based on ELISA Technology.	N/S	Respiratory specimens, Whole blood, Plasma, and Serum
Human COVID-19 Antigen detection ELISA	KRISHGEN BioSystems		Antigen Detection	Designed to qualitatively detect the presence of antigen specific to human SARS-CoV-2 virus. It is based on ELISA Technology.	N/S	Respiratory specimens and Serum

iAMP4COV-19	FUELIUM		Nucleic Acid Detection	iAMP COVID-19 test is a fast, instrument-free, fully disposable, cost-effective and easily deployable test that relies on molecular detection and not on antigen recognition. With the sensitivity and specificity of the molecular assays, iAMP COVID-19 addresses SARS-Cov-2 detection challenges that are not solved by the current solutions, such as long sample-to-result time and use of centralized and expensive equipment involved in RT-PCR, as well as the lack of accuracy that leads to false negatives when SARS-CoV-2 viral load is low when using antigen tests.	30 min	Nasopharyngeal swabs
IM2	National University of Singapore		Sample Collection	Injection molded 3D-printed nasopharyngeal swab designed to facilitate the collection of samples.	-	Nasopharyngeal swab
IM3	National University of Singapore		Sample Collection	Injection molded 3D-printed nasopharyngeal swab designed to facilitate the collection of samples.	-	Nasopharyngeal swabs
ImmunoPass	Axim Biotechnologies Inc	Empowered Diagnostics LLC	Antibody Detection	Portable, point-of-care, lateral flow assay intended for antibody testing in vaccine recipients. It is designed to detect and semi-quantitatively measure the levels of functional COVID-19 neutralizing antibodies. It is also indicated for other variants of SARS-CoV-2 virus.	10 min	Blood
Integrated Device - COVID-19	University of Oxford	John Radcliffe Hospital	Viral Detection	Differentiates SARS-CoV-2 from negative clinical samples as well as from other common respiratory pathogens. The method starts with the rapid labelling of virus particles in the sample with short fluorescent DNA strands. Then, a microscope is used to collect images of the sample and Machine-learning software quickly and automatically identifies the virus present in the sample.	< 5 min	Throat swab
Isothermal Test - COVID-19	Defence Research and Development Organisation	Israel Defense Research & Development Directorate	Nucleic Acid Detection	Point of care rapid test to identify the presence of coronavirus (COVID-19) using isothermal testing (amplification is achieved using a constant temperature).	30 sec	Saliva
JB-JustBreath	NanoTech Analysis		Viral Detection	Non-invasive, portable, and rapidly deployable automatic diagnostic nanotech instrument capable of detecting Cov-19 positivity, also in asymptomatic people, by performing near real time Volatile Organic Compounds (VOCs) measurements at molecular level. The system implements a smart nano sampling device (NTA patented technology) paired with a high precision mass spec analyzer.	30 sec	Exhaled breath
Lab-on-a-Chip Device	University of Michigan	Hackensack Meridian Health	Antibody Detection	Microfluidic ELISA device, or "lab on a chip," to quantitatively detect the presence and amount of neutralizing immunoglobulin antibodies. The machine can be the size of a microwave, and can test multiple simultaneous samples of little more than a drop of blood from a fingertip.	15 min	Blood and convalescent plasma

LAMP Test - COVID-19	Karolinska Institute	Huazhong University of Science & Technology; Shenyang University of Chemical Technology	Nucleic Acid Detection	Rapid, point-of-care test to detect the presence of viral RNA gene sequence specific to SARS-CoV-2 using colorimetric change. They adapted a technique called loop-mediated isothermal amplification (LAMP) specifically for the new coronavirus and combined it with a pH-indicator, which changes the color of the reaction mix from pink (alkaline) to yellow (acidic) if the sample is positive for SARS-CoV-2.	20-40 min	-
LetsGetChecked COVID-19 Home Collection Kit	LetsGetChecked		Nucleic Acid Detection	Home collection kit for detection of viral RNA. After a customer self-collects a swab sample, the collection swab is placed in a special transport tube containing a solution that deactivates the virus. The test-kit comes with a UPS next day air return shipping label to send the sample back to the lab for RT-PCR/TMA analysis.	24 h	Nasal swab
Logix Smart COVID-19 Test	Co-Diagnostics Inc	Promega Corp	Nucleic Acid Detection	PCR screening test to qualitatively detect RNA from SARS-CoV-2 by using CoPrimer Technology, which uses coprimers to enhance the output of real-time PCR tests. The technology helps in the virtual elimination of primer-dimer, the principal source of false positives. It can also be used to detect the presence of SARS-CoV-2 in the cancer tissue.	< 2 h	Lower and upper respiratory tract fluids
Lollipop PCR Test - SARS-CoV-2	Altona Diagnostic GmbH		Nucleic Acid Detection	Designed to detect the nucleic acid from SARS-CoV-2 virus, the test is intended to diagnose children. Instead of the usual nose and throat swab for sample collection, the children suck on a swab for 30 seconds for each sample. The sample is then analyzed through PCR technology.	N/S	Saliva
Lucira CHECK-IT COVID-19 Test Kit	Lucira Health Inc		Nucleic Acid Detection	Single-use test kit intended for the qualitative detection of nucleic acid from SARS-CoV-2. Based on RT-LAMP technology, the test can detect other variants of coronavirus including alpha, beta, delta, gamma and Omicron (B.1.1.529) variants.	30 min	Nasal swab
Next Generation COVID-19 Antigen Test	Mologic Ltd	Alamar Biosciences Inc	Antigen Detection	Designed to detect the presence of SARS-CoV-2 nucleocapsid antigens using high affinity antibodies. It is based on Mologic's novel electronic lateral flow immunoassay (eLFIA) technology.	N/S	N/S
Next Generation Lateral Flow Test - COVID -19	Novacyt SA		Antibody Detection	Intended for monitoring the effectiveness of COVID-19 vaccine, it detects neutralizing antibodies generated by successful immunization.	10-20 min	N/S
NGS Test - 2019-nCoV	Ares Genetics GmbH	BGI Group	Nucleic Acid Detection	Next-generation sequencing (NGS) test to detect the presence of RNA specific to SARS-CoV-2, based on ARES Technology.	N/S	N/S

NIRVANA	Salk Institute for Biological Studies	King Abdullah University of Science and Technology	Nucleic Acid Detection	Nanopore sequencing of isothermal rapid viral amplification for near real-time analysis (NIRVANA) is a small, portable, pocket-sized machine that can simultaneously detect and sequence SARS-CoV-2, influenza and other viruses. The test is based on isothermal recombinase polymerase amplification (RPA) coupled with real-time nanopore sequencing.	15 min	N/S
Novel Coronavirus (2019- nCoV) IgM/IgG Antibody Detection Kit	Nankai University		Antibody Detection	Detects the presence of IgG and IgM antibodies specific to novel coronavirus.	15 min	Plasma or Serum
Novel Coronavirus (COVID-19) Nucleic Acid Test Kit (RT-LAMP)	Changzhou Biowin Pharmaceutical Co Ltd		Nucleic Acid Detection	Portable RT-LAMP nucleic acid test kit to detect the presence of nucleic acids specific to COVID-19, and it is designed for individual use at home or in the office. It is composed of two main parts: self-sampling technology and nucleic acid testing instrument.	30 min	N/S
Nu.Q COVID-19 Triage Test	VolitionRX Ltd		Severity Prediction	It measures the levels of Neutrophil Extracellular Traps (NETs) to predict the progression of SARS-CoV-2 pneumonia and complications including Acute Respiratory Distress Syndrome (ARDS). SARS and pneumonia are associated with an inappropriate hyperimmune response to the virus involving massive ejection of NETs into the blood by white blood cells.	N/S	Blood
Organic Electrochemical Transistor	King Abdullah University of Science and Technology	King Faisal Specialist Hospital & Research Centre	Viral detection	Portable, bench-top device designed to detect the presence of nanobody-bound viral proteins specific to coronavirus and MERS. It features a virus-specific nanobody, a type of binding protein that can stick to fragments of different coronaviruses, including COVID-19 and MERS. The nanobody is tethered through a series of biochemical linkers to a thin layer of gold that, when an electric current is added, controls the flow of electricity through the semiconducting film it is connected to. The presence of any nanobody-bound viral proteins changes that flow, creating a signal that is amplified to measurable levels.	< 15 min	Blood, saliva, and nasal swab
PAIRUS	iLoF – Intelligent Lab on Fiber		Viral Detection & Severity Prediction	Pandemic Artificial Intelligence-based Risk Unified Stratification (PAIRUS) is a rapid and low-cost, personalized medicine-based tool capable of distinguishing COVID-19 from other respiratory infections and predicting the evolution of COVID-19 viral infection on a patient-specific basis. The platform is built based on the iLoF platform, a fully operational validated solution, based on photonics and Artificial Intelligence algorithms that allows the detection and identification of bio-nanostructures in liquid dispersions (e.g., plasma) for personalized and precision medicine applications.	20 sec	Plasma
Panbio COVID-19 IgG/IgM Rapid Test Device	Abbott Laboratories		Antibody Detection	Lab-based, point of care test for qualitative detection of IgG and IgM antibodies specific to SARS-CoV-2. The results are displayed through red lines in the respective places - C line (for Control), M line (for IgM) and G line (for IgG).	10-20 min	Serum, Plasma, Venous and Capillary whole blood

Panbio COVID-19/Flu A&B Rapid Panel	Abbott Rapid Diagnostics GmbH		Antigen Detection	Based on RT-PCR, the test is designed for the qualitative detection of COVID-19 antigen, Influenza A antigen (H1N1 and H3N2), and Influenza B antigen.	15-20 min	Nasal swab
PANORAMA	GreenTropism		Viral Detection	The test consists in a combination of i) the ultrasensitive, high-throughput capabilities of Surface-enhanced Raman Scattering (SERS) spectroscopy and ii) Kaïssa, GT's proprietary deep-learning models and associated computational processing pipelines. The sample is mixed with gold particles, put on a slice and then placed under a spectroscope, where a laser beam excites the sample and provides a spectrum as an output. The spectrum is then analyzed with artificial intelligence.	3 min	Blood
Panther Fusion SARS-CoV-2	Hologic Inc		Nucleic Acid Detection	RT-PCR <i>in vitro</i> diagnostic test intended for the qualitative detection of RNA from SARS-CoV-2. It is performed on Panther Fusion System that compares the fluorescence signal to a predetermined cut-off. The Panther Fusion SARS-CoV-2 assay involves the following steps: sample lysis, nucleic acid capture, elution transfer, and multiplex RT-PCR when analytes are simultaneously amplified and detected.	N/S	Nasopharyngeal, nasal, mid-turbinate, and oropharyngeal swab, nasopharyngeal wash/aspirates or nasal wash and bronchoalveolar lavage
Panther Fusion SARS-CoV-2 Assay	Hologic Inc		Nucleic Acid Detection	RT-PCR test designed to qualitatively detect the nucleic acid from SARS-CoV-2 isolated and purified from the patient's samples. It is performed on Panther Fusion System. It can also accurately detect the Omicron (B.1.1.529) variant of the coronavirus.	N/S	Nasopharyngeal and Oropharyngeal swabs
Paper-Based Electrochemical Sensor	University of Illinois		Nucleic Acid Detection	Detect the presence of SARS-CoV-2 viral RNA using graphene-based electrochemical biosensor. It consists of a platform to measure an electrical read-out and probes to detect the presence of viral RNA. In the platform, filter paper is coated with a layer of graphene nanoplatelets and a gold electrode is placed on top as a contact pad for electrical readout. Antisense oligonucleotides capped with gold nanoparticles are used to target viral RNA, which causes a change in the sensor electrical response.	< 5 min	Nasal and Saliva swabs
PathFlow SARS-CoV-2 Antigen Test	Microgen Bioproducts Ltd		Antigen Detection	Lateral flow test designed to detect the presence of antigens specific to SARS-CoV-2. During testing, the specimen reacts with SARS-CoV-2 Nucleocapsid protein antibody-coated particles in the test. The mixture then migrates upward on the membrane by capillary action and reacts with the SARS-CoV-2 Nucleocapsid protein antibody in test line region.	15 min	Nasal swab
PathFlow SARS-CoV-2 SMART IgG Test	Microgen Bioproducts Ltd		Antibody Detection	Next generation Lateral Flow test to detect and differentiate between IgG antibodies. The test is expected to assist clinicians in understanding the impact of immunization programs, as well as the levels of immunity derived from infection by the virus.	N/S	N/S

PATHLOCK	Statens Serum Institut		Nucleic Acid Detection	Point of care kit for rapid detection of COVID-19 based on CRISPR-Cas13 technology. CRIPR-Cas13 recognizes the SARS-CoV-2 RNA and generate a signal when it has been cut.	1 h	Swabs or Saliva
PATHPOD	Statens Serum Institut		Nucleic Acid Detection	Portable lab-on-a-chip cartridge instrument to detect COVID-19. The system is based on LAMP technology and processes up to 10 samples in a single run. The results are displayed on a computer or tablet.	15 min	N/S
PETIA COVID-19/SARS-CoV-2 Antibody Test	Gentian Diagnostics AS		Antibody Detection	Turbidimetric SARS-CoV-2 antibody test based on NanoSense Technology. The immunoassay will be designed for use on high-throughput clinical chemistry analyzers.	N/S	Blood
Phantom 1.0 Dx	Caspr Biotech		Nucleic Acid Detection	Rapid, CRISPR-Cas12 based, point of care, portable diagnostic test designed to detect the presence of SARS-CoV-2 by nucleic acid testing in the patient's sample.	N/S	Saliva
PictArray SARS-CoV-2 Antibody Test	Pictor Ltd	Mobility Health Inc	Antibody Detection	ELISA antibody test intended for the monitoring of COVID-19. It is designed to detect the presence of SARS-CoV-2 spike protein and nucleocapsid protein antibodies from the previous infection of SARS-CoV-2 or from vaccination in patient's sample. It will also indicate the patients at-risk who have failed to develop antibody response for vaccination or infection.	N/S	Serum
POC-LIT-COV	Serexo Limited		ROS Detection	Leukocyte ImmunoTest (LIT) is an in-vitro blood test that quantitatively assess immunocompetence. LIT measures the capacity of leukocytes (primarily neutrophils) to release reactive oxygen species (ROS) using a small drop of blood in a rapid near-patient format. LIT is portable (using a handheld luminometer), affordable and it is being developed as a new prognostic parameter to monitor COVID-19 progress, helping predict outcome and guide treatment management during acute infection.	10 min	Blood
POCT4COVID	IETY – Inventive Engineering & Technology		Antigen Detection	Point of care testing KIT based on nanotechnological immunosensors based on immunosensors and using antibody-antigen interaction to detect the presence of the virus. The electrochemical sensors are integrated with a digital device capable of storing the result and transferring it to the CLOUD environment for any remote reporting.	20-30 min	Saliva
Point of Care Test - SARS-CoV-2	BioPorto Diagnostics AS	University of Southern Denmark	Antigen Detection	Detects SARS-COV-2 by using novel antibodies highly specific to the virus's spike protein with gRAD (Generic Rapid Assay Device) technology for the development of lateral flow assays.	10 min	Saliva or Pharyngeal swab
Point-of-Care Diagnostic Machine	OSLER Diagnostics Ltd		Biomarker Detection	Portable diagnostic machine that can diagnose a variety of diseases, including COVID-19, by detecting the presence of specific biomarkers.	N/S	Blood

Point-Of-Care Test - COVID-19	Mologic Ltd	Dakar Pasteur Institute	Antibody Detection	Lateral flow antibody test to detect the presence of IgG and IgM antibodies specific to novel coronavirus.	10 min	N/S
Polyamino Acid Test - COVID-19	Defence Research and Development Organisation	Israel Defense Research & Development Directorate	Viral Detection	Poly-amino acids that Isolate proteins related to coronavirus (COVID-19).	30 sec	Saliva
Portable Test Kit - COVID-19	University of East Anglia		Nucleic Acid Detection	Molecular test to sequence RNA by using a rapid three minute RNA extraction (Arcis Biotechnology)	50 min	Throat swab
Prediction of Covid-19 Positivity and Mortality Risks from ECG Signals Using Deep Learning	Halnet S.r.l.; DISI University of Bologna;	Maria Cecilia Hospital ; Health Ricerca e Sviluppo	Disease assessment	Artificial intelligence based technology, capable of automatically find key features and extract complex knowledge from ECG.	7 sec	N/S
PrimeTime SARS-CoV-2/Flu Test	Integrated DNA Technologies Inc		Nucleic Acid Detection	Multiplex RT-qPCR test for detection of SARS-CoV-2, influenza A, and influenza B viruses. The test includes primers, probes, master mix, dilution buffer, and controls.	N/S	N/S
Prognostic Test - COVID-19	Charite University Hospital of Berlin	The Francis Crick Institute Ltd	Severity Prediction Test	Mass spectrometry-based test to detect the levels of protein biomarker signatures specific to novel coronavirus infection.	N/S	Plasma, Whole blood
PROmate SARS-CoV-2 E484K Test	Novacyt SA		Nucleic Acid Detection	PCR test designed to detect E484K mutation specific to SARS-CoV-2, found in all current variants of concern and that has been associated with immune evasion and reduction of vaccine efficacy. The test is intended for research use only.	90 min	N/S
PROmate® COVID-19 2G	Novacyt SA		Nucleic Acid Detection	RT-PCR test designed to detect the ORF1ab gene and encoding the Nsp16 viral nonstructural protein of the SARS-CoV-2 virus. Results are interpreted on the genesig® q32 instrument.	95 min	Anterior nasal swab
Python Swab	National University of Singapore		Sample Collection	Injection molded 3D-printed nasopharyngeal swab designed to facilitate the collection.	-	Nasopharyngeal swab
QIAprep & Viral RNA UM Kit	Qiagen NV		Nucleic Acid Detection	Combines a liquid-based sample preparation step, completed in only two minutes, with real-time PCR detection in a streamlined workflow. It reduces plastic usage by using only three small pipette tips needed per sample and it is compatible with standard lab automation equipment, any assay and transport media.	< 1 h	Nasal, Oro and Nasopharyngeal swab

QIArearch Anti-SARS-CoV-2 Total Test	Qiagen NV	Ellume Ltd	Antibody Detection	Detects the presence of total Ig, IgM, IgG, IgA antibodies specific to SARS-CoV-2. Built on state-of-the-art nanoparticle fluorescence technology, it is performed on digital eHub and eStick system and it allows testing up to eight patients simultaneously.	10 min	Plasma and Serum
QIArearch SARS-CoV-2 Antigen Test	Qiagen NV	Ellume Ltd	Antigen Detection	Rapid portable test that detects the presence of SARS-CoV-2 antigens specific to coronavirus in patients with active infection. It is performed on eHub instrument and uses estick system (using of nanoparticle fluorescent detection technology to flag the SARS-CoV-2 nucleocapsid protein). It allows testing up to eight patients simultaneously.	2-15 min	Nasal swab
Quantum Barcode Serological Assay Device	University of Toronto	Sunnybrook Health Sciences Centre; Mount Sinai Hospital; Public Health Ontario Laboratories	Antibody Detection	Portable smartphone-based device designed to detect antibodies against COVID-19. Based on Quantum Dot Technology, it detects antibodies that leads to color change in microbead and is identified by a smartphone camera. It includes beads that are loaded into the device, activated with a laser, and the signal is imaged using a smartphone camera. It features an integrated app designed to process the image to identify the bead's emission change. This data is interpreted and transmitted remotely for data collection and decision making. It detects multiple antibodies from different sample types simultaneously.	1 h	Blood
Quantum Blue SARS-CoV-2 RBD Plus Assay	Buhlmann Laboratories AG		Antibody Detection	Rapid lateral flow assay designed to qualitatively detect antibodies of various isotypes (IgG, IgA, IgM) directed against the receptor binding domain (RBD) of the Spike glycoprotein of SARS-CoV-2. Sensitivity: >85% Specificity: 98%	15 min	Serum and capillary blood
QuickCov19	Aqsens Health Ltd		Viral Detection	Quick test for early screening of COVID-19 based on E-TRF method, to detect the metabolic changes instantly after infection (both sensitivity and specificity above 90%). The Aqsens E-TRF method combines Time Resolved Fluorescence with proprietary modulators, which interact with the sample molecules to create a unique fingerprint of the sample.	5 min	Saliva
Rapid Diagnostic Test - COVID-19	Atomo Diagnostics Ltd		Antibody Detection	Detects the presence of antibodies (IgG/IgM) specific to SARS-CoV-2. It is performed on AtomoRapid Galileo device.	15 min	Blood
Rapid Diagnostic Test - SARS-CoV-2	Technion Israel Institute of Technology	Rambam Health Care Campus; Meir Medical Center	Viral Detection	For the test, it is only needed to immerse the sample in a test tube that contains the reactive material and then in the thermal cup with hot water. If the color of the reaction changes, that indicates the presence of the coronavirus.	< 1 h	Saliva
Rapid Duplex Test	Iceni Diagnostics Ltd	University of Warwick	Glycan Detection	Detects the presence of glycan specific to SARS-CoV-2 and influenza. Cells in the respiratory tract are covered in a coat of sugar chains, known as glycans, and viruses can utilize these glycans as part of the infection process.	< 20 min	Saliva or Nasal fluids

Rapid IgM-IgG Combined Antibody Test - SARS-CoV-2	Guangzhou Medical University	Nanjing University of Chinese Medicine; Huazhong University of Science & Technology	Antibody Detection	Point-of-care lateral flow immunoassay to detect the presence of IgM and IgG antibodies specific to SARS-CoV-2. The main body of the test strip consist of five parts, including plastic backing, sample pad, conjugate pad, absorbent pad and nitrocellulose membrane. Sensitivity: 88.66% Specificity: 90.63%	15 min	Whole blood
Rapid Point-of-Care COVID-19 Test	Llusern Scientific Ltd	University of South Wales	Nucleic Acid Detection	Detects the presence of SARS-COV-2 virus using the loop-mediated isothermal amplification of DNA (LAMP) technology, and the results are processed by an electronic reader device.	20-30 min	Saliva and Nasal swabs
Rapid Test - COVID-19	VTT Technical Research Centre of Finland Ltd	Meilahti Vaccine Research Center; University of Helsinki	Antigen Detection	Detection of viral antigens for the COVID-19-virus. The test is designed to be performed by health care personnel.	15 min	Nasopharyngeal swab
RapiPrep COVID-19 Test	MicrosensDx Ltd		Nucleic Acid Detection	Rapid point of care device to detect the presence of RNA from the SARS-Cov-2 virus. The test uses a magnetic particle viral RNA preparation step optimized to work with the built-in LAMP detection method, which ensures a very efficient capture to give the highest possible detection sensitivity.	< 25 min	Throat, Nasal, and Sputum
RAPPID COVID-19 Test	Eindhoven University of Technology		Antibody Detection	RAPPID (Ratiometric Plug-and-Plug Immunodiagnosics) COVID-19 Test is a sensor based test intended for the diagnosis of COVID-19. It is designed to detect the presence of spike proteins and anti-drug antibodies specific to SARS-CoV-2 virus. It includes luciferase enzyme which emits blue light when biomarkers are detected. Its quantity can be detected by the amount of blue light emission and can be measured by a smartphone camera. It is also intended for the diagnosis of rheumatoid arthritis, inflammatory bowel disease, and other infectious diseases.	N/S	Blood
REDxFLOQ SARS-CoV-2	Microbix Biosystems Inc		Sample collection	REDxFLOQ SARS-CoV-2 is intended for swab sample collection. It is designed to collect swab samples from suspects or patients suffering from COVID-19.	-	-
ReSARS Cov-2 IgG/IgM/IgA ELISA Kit	Zalgen Labs LLC	Tulane University	Antibody Detection	ELISA kit for semi-quantitative detection of IgG/IgM/IgA antibodies to SARS-CoV-2. The assay detects antibody bound to immobilized antigen mixture in microwells. Color develops in the wells at an intensity proportional to the concentration of anti-SARS-CoV-2 IgG/IgM/IgA antibody in the sample.	N/S	N/S
REVEALCOVID-19 Nab-Y [Nab-Y] Neutralizing Test	MedMira Inc		Antibody Detection	Point-of-care diagnostic test designed to detect the presence of neutralizing antibodies specific to SARS-CoV-2 virus. It is based on Rapid Vertical Flow Technology.	N/S	N/S

RT-LAMP Assay - SARS-CoV-2	Nantong University		Nucleic Acid Detection	Reverse transcriptase loop-mediated isothermal amplification (RT-LAMP) rapid assay to detect the presence of N gene specific to SARS-CoV-2. The results can be monitored using a real-time PCR machine or visualized via colorimetric change from red to yellow.	30-40 min	Nasal and Throat swab
RT-RAA Diagnostic Assay - 2019-nCoV	Beijing Ditan Hospital		Nucleic Acid Detection	Real-Time Reverse-Transcription Recombinase Aided Amplification (RT-RAA) Diagnostic Assay is a rapid isothermal nucleic acid amplification assay designed to detect the presence of recombinant plasmids containing conserved ORF1ab genes specific to SARS-CoV-2. It is performed using a portable real-time fluorescence detector.	30 min	Nasal swab, Oral swab, Bronchoalveolar-lavage fluid, Urea, Blood and Fecal
Saliva Based Assay - COVID-19	University of Illinois at Urbana-Champaign		Nucleic Acid Detection	Saliva Based Assay - COVID-19 is a rapid test intended for the diagnosis of novel coronavirus disease (COVID-19). The test skips RNA isolation (a cumbersome process), which allows quicker results.	< 30 min	Saliva
Saliva-Based Rapid COVID-19 Antigen Test	Sona Nanotech Inc		Antigen Detection	Immunochromatographic assay for the qualitative detection of the spike protein antigen from SARS-CoV-2. It utilizes gold nanorods.	20 min	Saliva
Saraplex Flu A/Flu B/COVID-19 (ABC) multiplex	CoSara Diagnostics Pvt Ltd		Nucleic Acid Detection	A RT-PCR test based on the company's proprietary CoPrimer technology, that is designed for the simultaneous detection and differentiation of influenza A, influenza B, and SARS-CoV-2. The SARS-CoV-2 targets in the test remain effective in detecting all known strains of the virus, including the Omicron variant.	N/S	Nasopharyngeal/oral swab, Bronchial lavage, Tracheal aspirate, Sputum, or Saliva
SARS-CoV-2 & Flu A/B Rapid Antigen Test	Roche Molecular Systems Inc		Antigen Detection	Rapid chromatographic immunoassay for the simultaneous detection and differentiation of the nucleocapsid protein antigens of SARS-CoV-2, influenza virus A and influenza virus B. It detects SARS-CoV-2 variants, including Delta and Omicron variants. Sensitivity: 84.85% Specificity: 98.59%	15 min	Nasopharyngeal swab
SARS-CoV-2 Antibody Biosensor Test	GBS Inc	Johns Hopkins University	Antibody Detection	Printable organic thin-film transistor "strip" (Biosensor Platform technology) with a specialized nanomaterial gel-like coating that allows the detection of IgM and/or IgG antibodies.	< 10 min	Saliva
SARS-CoV-2 Antigen Detection Kit - Self Testing	Vazyme Biotech Co Ltd		Antigen Detection	SARS-CoV-2 Antigen Detection Kit (For Self-testing) for antigen detection, that is capable of detecting several variants of COVID-19 including delta variant.	N/S	N/S
SARS-CoV-2 Antigen Test	Beckman Coulter Inc		Antigen Detection	Detects the presence of antigens specific to SARS-CoV-2. It is performed on Beckman Coulter immunoassay analyzers, including the UniCel DxI800, DxI600 and Access2 Access Immunoassay Systems. It runs 200 COVID-19 tests in 60 minutes. Price: \$4 per test	15-30 min	Nasopharyngeal swab

SARS-CoV-2 ELISA Test	Boston University		Antibody Detection	Detects the presence of IgA, IgG and IgM antibodies specific to COVID-19. The ELISA method is slightly changed to improve detection of all proteins measured by the technique: instead of washing the plates in a machine, an operator washes the plates and performs specific steps to be sure each well of the plate is washed thoroughly and there is no cross-contamination of liquid between wells.	N/S	Blood
SARS-CoV-2 IgG/IgM Diagnostic Test	Monash University	Bioresource Processing Institute of Australia	Antibody Detection	Point of care agglutination assay to detect the presence of IgG/IgM antibodies specific to SARS-CoV-2. They designed an antibody-peptide bioconjugate, synthesized in a two-step chemical process, to agglutinate red cells in the presence of SARS-CoV-2 antibodies only. The results are visible to the naked eye as a red line above the gel media.	20 min	Blood plasma and Serum
SARS-CoV-2 Interferon-gamma release assay	Euroimmun AG		Diagnosis Of Coronavirus Disease 2019 (COVID-19)	Designed for the quantitative determination of the interferon gamma release by SARS-CoV-2-specific T cells. The sample is analysed by ELISA.	24 h	Blood
SARS-CoV-2 Saliva Test	QuantuMDx Group Ltd		Nucleic Acid Detection	RT-PCR test that has been developed using advanced bioinformatics to maximize performance. The sensitive test targets three SARS-CoV-2 genomic loci; the S, N and Orf1 genes and can run on multiple high- and low-throughput PCR platforms that can be calibrated for the fluorophores FAM and HEX.	70 min	Saliva
SARS-CoV-2 Serology ELISA	ProAxis Ltd	AstraZeneca	Antibody Detection	ELISA test that detects IgG antibodies in previously infected individuals, vaccinated individuals, and also in individuals known to be infected by the different SARS-CoV-2 variants – Alpha, Delta and Omicron. Sensitivity: 100% Specificity: 99.3%	N/S	Blood
SCoV-2 Detect IgM/IgG Rapid Test	InBios International Inc		Antibody Detection	Detects the presence of IgG and IgM antibodies specific to SARS-CoV-2 virus. Sensitivity: 97.8% Specificity: 98.9%	150 min	Plasma, Serum, Whole blood
Second Generation AptameX	Achiko AG		Antigen Detection	Diagnostic test that uses DNA aptamers and gold nanoparticles to detect spike protein from SARS-CoV-2 virus. DNA aptamers are added to the sample, binding to viral proteins, and then gold particles are released and aggregate causing a color change. It is integrated with Teman Sehat (Healthy Buddy) app to schedule COVID-19 testing, receive payments, and obtain test results.	N/S	Nasopharyngeal swabs and Saliva
Serological ELISA Test - COVID-19	Biomerica Inc	Mount Sinai Medical Center	Antibody Detection	ELISA lab-based serology blood test for the detection of IgG antibodies specific to SARS-CoV-2 virus. It uses a modified, trimeric spike protein from the SARS-CoV-2 virus.	N/S	Whole blood
Serum Antibody Rapid Test - COVID-19	Abnova Corp	Labospace Srl	Antibody Detection	Point-of-care lateral flow chromatography immunoassay to detect the presence of IgM/IgG antibodies specific to SARS-CoV-2. During testing, the blood sample firstly interacts with COVID-19 protein antigens labeled gold nanoparticles in the Sample Zone. By capillary action, the mixed sample flows across the membrane strip. Human antibodies interact with the anti-human antibodies coated in the Result Zone showing a visible colored line.	15 min	Plasma, Serum, Whole blood

SPOT	University of Illinois at Urbana-Champaign		Nucleic Acid Detection	Rapid, portable, battery-powered handheld analyzer designed to detect the genes specific to SARS-CoV-2 in patient's saliva sample.	< 30 min	Saliva
Sure Status COVID-19 (SARS-CoV-2) Antigen Card Test	Premier Medical Corporation		Antigen Detection	Lateral flow immunochromatographic assay for the qualitative detection of nucleocapsid protein antigen from SARS-CoV-2. It can also detect variants.	15 min	Nasopharyngeal swab
TaqCheck SARS-CoV-2 Fast PCR Assay	Thermo Fisher Scientific Inc		Nucleic Acid Detection	Fast RT-PCR assay for the qualitative detection and characterization of target two different viral genomic regions (S and N genes) and mutations and RNase P RPP30 gene to help assess sample adequacy. It reduces thermocycling time by one-third.	N/S	Saliva
Tata MD CHECK RT-PCR OmiSure	Tata Medical and Diagnostics Ltd		Nucleic Acid Detection	qRT-PCR test for specific Omicron identification, distinguishing Omicron from Delta, wild-type and all other VOCs of SARS-CoV-2. It targets S-gene dropout or S-gene target failure (SGTF) and S-gene mutation amplification (SGMA). It also detects the BA.1, BA.1.1, and BA.2 sub-lineages of Omicron variant. Sensitivity: 100% Specificity: 99.25%	130 min	Nasopharyngeal and Oropharyngeal swabs
TESTOMETIC	AegirBio AB	LIONEX GmbH	Antibody Detection & Severity Prediction Test	Based on a lateral flow assay, the test uses a drop of blood and it can measure both COVID-19 antibody and person's ability to manage the viral load.	5 min	Blood and Saliva
THERM-AI	Kelvin Health		Disease assessment	Image recognition technology that is deployable at scale to screen and monitor COVID-19 inflammation. It requires thermal image captures of the subject's upper body and it analyses the images through an AI engine running in the cloud, returning a preliminary screening result through the THERM-AI app.	N/S	N/S
TNX-2100	Tonix Pharmaceuticals Holding Corp		T cell detection	Diagnostic skin test to measure delayed-type hypersensitivity (DTH) to SARS-CoV-2, a measure of functional T cell immunity. The test requires an injection of a small representative peptides, designed to represent different protein components of the SARS-CoV-2 virus, into the skin. A positive result is evidenced by a skin reaction surrounding the site of the injection produced by local infiltration of functional antigen-specific T cells. This reaction, also called "induration", has been shown to be dependent on the presence of memory T cells. Both the CD4+ and CD8+ fractions of T cells participate in this response.	N/S	Skin

TR-FRET	University of Helsinki		Antigen Detection	Rapid test based on time-resolved Förster resonance energy transfer (TR-FRET), where energy travels between two light-sensitive molecules when they are close enough to each other. The sample is mixed in a test solution containing antibodies that recognize the SARS-CoV-2 nucleoprotein or spike protein. The antibodies marked with fluorescent labels bind with SARS-CoV-2 particles, forming molecular assemblies, or complexes, whose existence can be confirmed/detected by using a TR-FRET assay.	10 min	Nasopharyngeal swab
Two-Step COVID-19 Test	University of Vermont	University of Washington	Nucleic Acid Detection	The method for the test omits the step in the widely used RT-PCR test where the scarce reagents are needed. It takes a sample of the medium that held the nasal swab and goes directly to the third, amplification step. Sensitivity: 92% Specificity: 100%	N/S	Nasal swab
Unyvero A30 RQ	Curetis GmbH		Nucleic Acid Detection	Mid-plex system based on RT-PCR technology designed to provide rapid quantitative results for a select host of critical targets. It uses specialized cartridges that can be adapted to a wide variety of infectious diseases. It can be integrated into the existing Unyvero A50 System, or can be run as a standalone device.	60-90 min	N/S
ViraDx	Lumos Diagnostics Holdings Ltd		Antigen Detection	Three-in-one COVID-19/Flu A/Flu B rapid antigen test based on Lateral Flow Technology. The device consists of a cassette with one side showing COVID-19 test results, and other Influenza results.	15 min	N/S
ViroTrack Sero COVID-19 Total Ab HDR	BluSense Diagnostics ApS		Antibody Detection	BluSense combines microfluidics and nanotechnology in a unique point-of-care platform capable of providing lab-grade results in a matter of minutes and with minimal effort. By operating on the patented immunomagnetic assay (IMA) measurement technique, BluBox, a portable IVD reader, reads single-use microfluidic cartridges and provides results quantitative up to 2000 BAU/mL. The assay is based on the trimeric Spike protein (S) and requires 20µl of sample to run a measurement. Results are accessible on the IVD reader, BluBox, and exportable via USB or wirelessly. Sensitivity = 96.8% Specificity = 99.7%	9 min	Capillary whole blood, Whole blood, plasma/serum, whole blood (heparin, EDTA)
XVS	Mindfully Technologies		Patient screening, triage and prioritization	Use of AI to assist radiologists in analyzing medical images, saving 25% of the diagnostic time by detecting possible conditions and highlighting their locations. The system, which is able to accurately detect multiple pathologies on both radiographies and CT scans, to localize them and to generate auxiliary information, will be applied to COVID-19. This will allow doctors to triage patients and to process medical images faster and with greater precision. XVision offers free trials of our products (2-3 months, depending on each of the hospitals) with no strings attached.	-	Chest X ray

ZEKNANO	Zenum Technologies Inc		Antibody Detection & Severity Prediction Test	Portable device to detect the presence of IgG and IgM antibodies by measuring the induction of an immune response using nanofluidic technology. It uses artificial intelligence to increase the test's efficiency and study any mutation of the virus. It is also used for diagnosing other infectious diseases including Influenza A, Influenza B, respiratory allergic infections.	5 min	Blood
ZiP-CoVx Assay	ZiP Diagnostics Pty Ltd		Nucleic Acid Detection	Portable, point of care, PCR test to detect the presence of viral RNA specific to the SARS-CoV-2 virus. It is highly specific and is not cross-reactive with other circulating coronaviruses and other respiratory infections.	15-30 min	Respiratory swab