

AUGUST 2020

PROJECT SOLAS



RECONNAISSANCE
GROUP

GLOBAL SCIENTIFIC DEVELOPMENTS IN COVID-19

EDITION 2

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At the time of publishing, the figures released by the World Health Organisation on Covid-19 were as follows:

Confirmed cases - 18.3million

New cases - 176,000

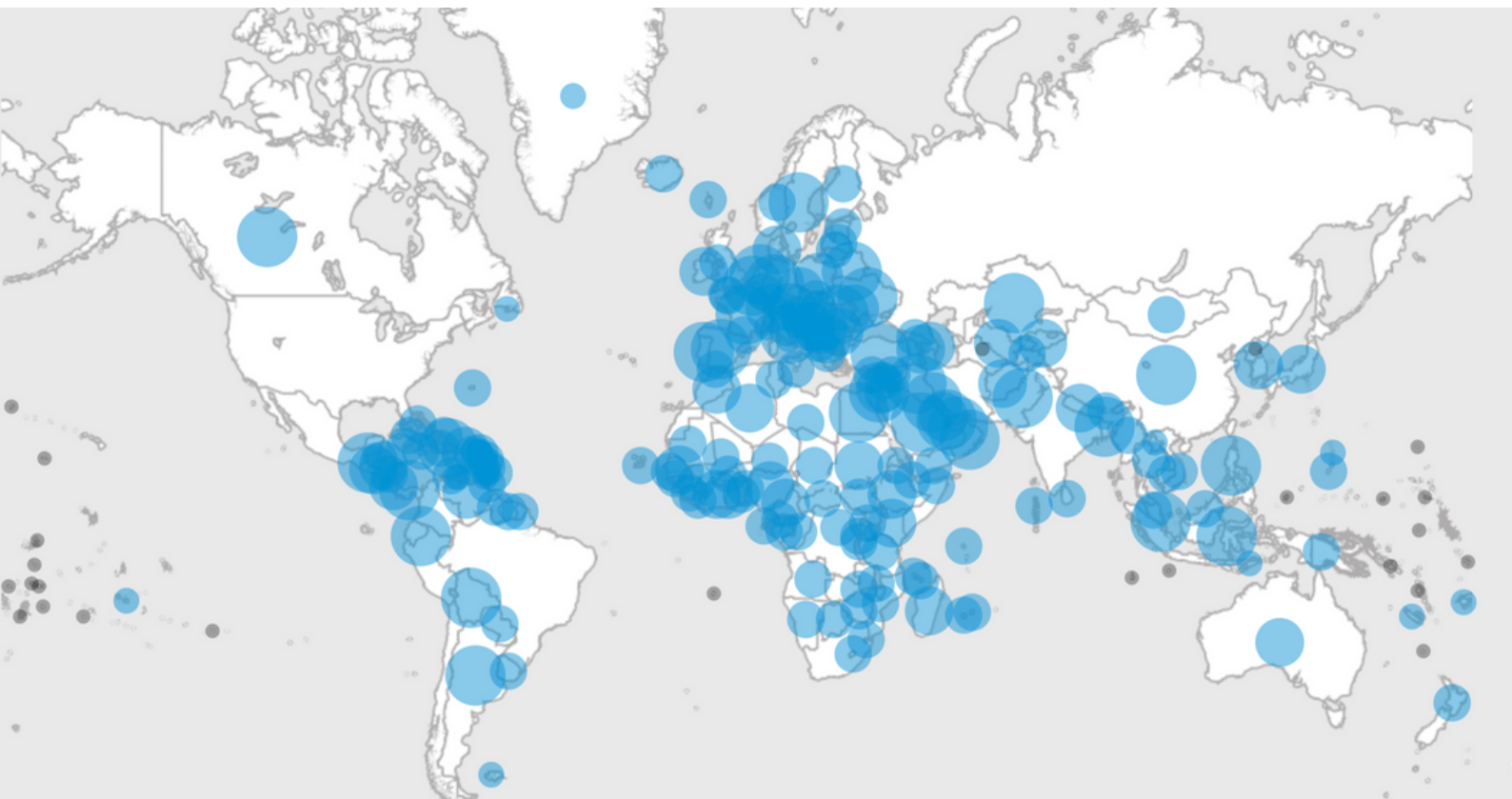
Deaths - 695,000

Our incredible researchers have spent months reviewing the scientific and corporate developments on Covid-19.

The landscape of the 2020 pandemic changes daily. Some countries have reopened their economy successfully, others have seen a resurgence in case numbers.

The objective of Project Solas is to shine some light on the positive global developments in the fight against Covid-19.

This document is available in Creole, French and English.



Map source: WHO
5th August 2020

02

ASIA



Prep date: June 2020

Drug/ Vaccine Developments

Fujifilm Toyama Chemical's antiviral influenza drug Avigan (favipiravir) is currently in Phase III which began in April for the treatment of COVID-19 patients in Japan. The new Phase III trial will assess Avigan's safety and efficacy as a potential COVID-19 treatment. (1)

Bionet-Asia, a local firm working with the government of Thailand and a top Bangkok university, has put all other activities on hold and dedicated 250 personnel and all of its labs, technology and production facilities to developing a COVID-19 vaccine. (2)

Based in South Korea, Celltrion's vaccine candidate showed improved recovery in runny nose, cough and body aches after the first day of treatment, and clearing of lung inflammation within six days in its pre-clinical study. With this, the company is aiming to begin in-human clinical trials in late July. (3)

Indonesia-based Kalbe Farma has signed an agreement with South Korea-based biotechnology firm Genexine Inc. to start a clinical trial of a COVID-19 candidate vaccine in Indonesia. The candidate vaccine, called GX-19, has been tested to primates, resulting in an antibody on the test subjects that could neutralize the novel coronavirus. (4)

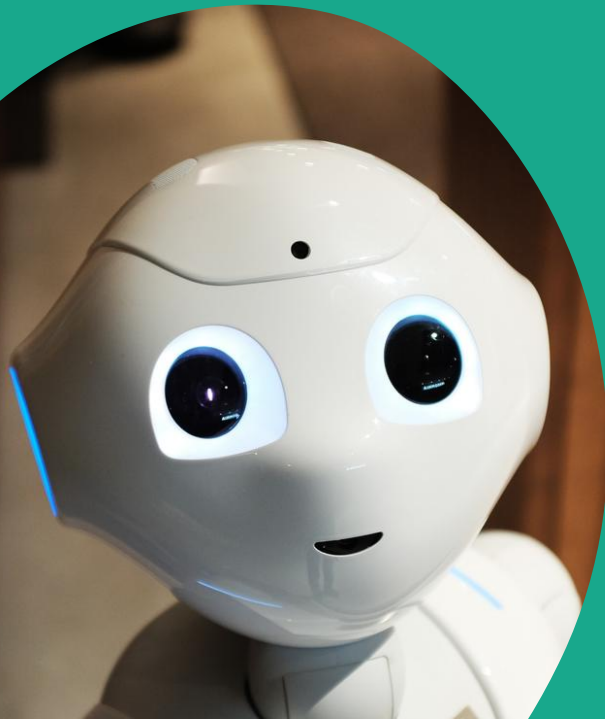
03

Changes in industries to help fight Covid-19

Social entrepreneur Cherrie Atilano in the Philippines has enabled farmers to sell food that otherwise would have been dumped. The social enterprise called Agrea, helps farmers move from subsistence to small-scale commercial farming. By 26 April, the initiative had shipped almost 138,000kg of fruit and vegetables from almost 4,000 farmers, reaching nearly 30,000 families. In addition, the project is donating food to eight community kitchens set up to feed frontline medical staff treating people with coronavirus. So far more than 2,000 medics have benefited from free food. (5)

A cafe in Daejeon, South Korea, is using robots to make customers coffee to maintain social distancing. The system can make 60 different types of drinks, and serve customers at their tables. An order of six drinks, processed through a kiosk, takes seven minutes. There is only one human employee at the cafe, responsible for cleaning and refills. (6)

Taiwan was one of the first countries to implement a monitoring system early. It is described as a “digital fence,” whereby anyone required to undergo home quarantine has their location monitored via cellular signals from their phones. Venturing too far from homes triggers the alert system, and calls and messages are sent to the user to ascertain their whereabouts. Anyone caught breaching their quarantine can be fined up to NT\$1 million (\$33,000). (7)



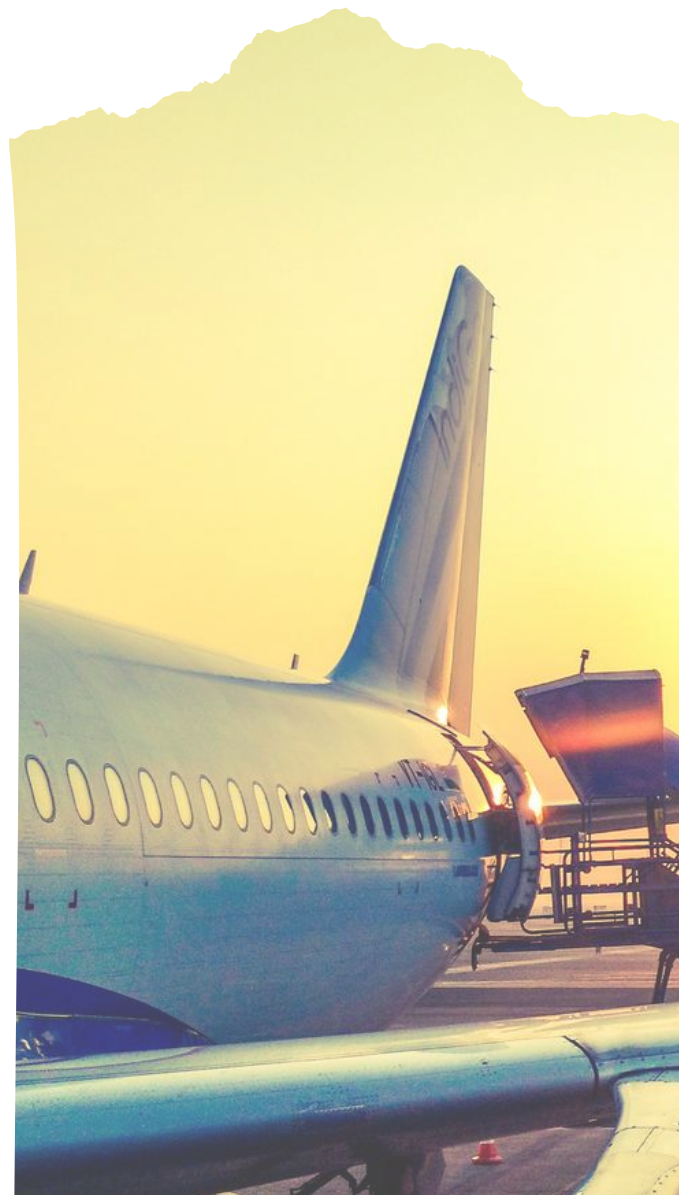
04

The Hong Kong government is using tracker wristbands to geofence people under coronavirus quarantine. At the airport, all arrivals are given a wristband, each with a unique QR code. The user will then download an app called StayHomeSafe on their phone, and scan the QR code to pair the wristband with the app. Once home, they are to walk around the apartment to calibrate the wristband. If someone tries to breach the quarantine by leaving their home, the app triggers a warning and alerts the government. Anyone violating their quarantine could face up to six months in prison and a fine of up to HK\$25,000 (US\$3,200). (8)

Technological Advancements

Research is being conducted at Penn State, the University of Minnesota, the University of Tokyo and Tohoku University on a handheld UV lamp that may kill COVID-19 on surfaces. The problems with the current devices are typically expensive mercury-containing gas discharge lamps, which require high power, have a relatively short lifetime and are too bulky for personal use. The research is to develop high-performance, UV light emitting diodes, which would be portable, long-lasting, energy efficient and environmentally benign. (9)

South Korea-based company SD Biosensor has commenced the manufacturing of rapid antibody test kits in its Manesar plant to detect Covid-19 in India. This move is expected to address the need for testing kits in the country. (10)



05

Duke-NUS Medical School, GenScript Biotech Corporation and Singapore's Agency for Science, Technology and Research (A*STAR) have announced an exclusive agreement to co-develop and manufacture a serological Covid-19 antibody test that allows rapid detection of neutralizing antibodies (NABs). NABs are present in the serum of COVID-19 patients and are responsible for clearing the viral infection. The new test, known as cPass, can be rapidly conducted within an hour in most research or clinical labs. (11)

The yellow robot dog named Spot, the one used in New York to help provide remote care, has been deployed to patrol a Singapore park and ensure people observe social distancing to stem the spread of COVID-19. As it goes around the park, it uses cameras to estimate the number of visitors and relays a message to remind joggers and walkers to keep their distance. (12)

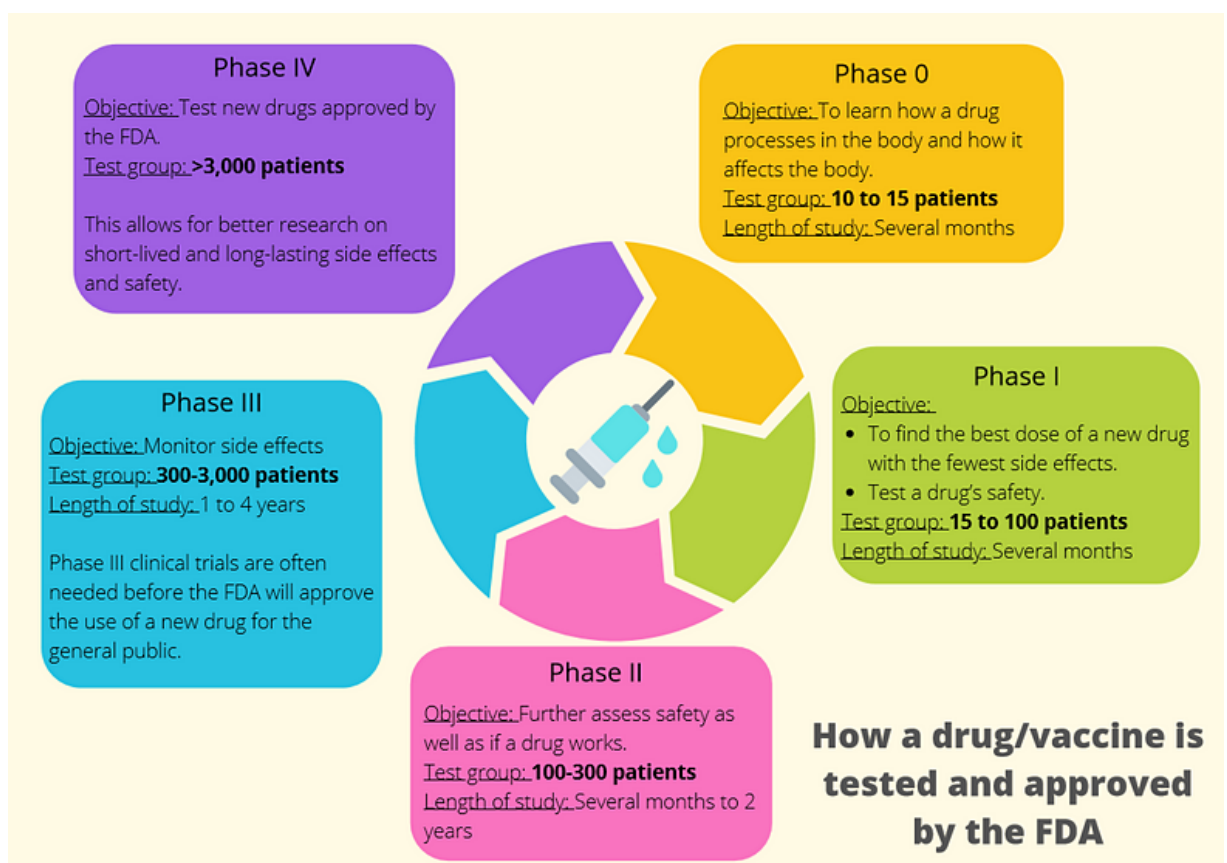
iWEECARE has announced that its Temp Pal portable thermometer has been adopted to fight the virus. Temp Pal is currently used to protect healthcare workers at Cork University Hospital in Ireland and Cheng Hsin General Hospital in Taiwan. It is also used for self-quarantine management in the Chinese city of Nanjing to reduce the workload and close contact with high-risk people. Cloud-based continuous temperature monitoring system provides early warning of fevers. The device is intended to help reduce the risk of infections by allowing people to self-isolate sooner, as well as prevent the crushing of health systems by reducing physical contact between caregivers and patients. (13)

06

AFRICA AND MIDDLE EAST

Prep date: June 2020

Drug/ Vaccine Developments



The attached infographic displays the development of a drug/vaccine. The first phase (Phase 0) is more commonly known as the preclinical phase. The main process includes four (4) phases, Phase I to IV. For COVID-19, the length of each phase has been shortened and Phase I and II studies have been combined.

07

As of June 15th 2020, there are 348 drugs in Phase 0, 13 drugs in Phase I, 30 drugs in Phase II, and 9 in Phase III. There are no drugs that have moved on to Phase IV. (14)

Scientists at King Abdulaziz University in Jeddah, are collaborating with SaudiVax to develop a COVID-19 halal vaccine. In the development of vaccines, scientists use live cells that need nutrients to live and survive. These nutrients could include elements that are not considered permissible under Islamic law - for example ingredients derived from pigs like gelatin or bile. (15)



South African biotech group TASK started the continent's first trial in May to see whether 250 high-risk workers given a booster dose of BCG vaccine show better protection against COVID-19 than the same number given a placebo. Three thousand health workers are eventually expected to be involved in the trial overall. Researchers expect preliminary results within six months in the year-long trial. Tests to see if the century-old Bacille Calmette-Guerin (BCG) vaccine, widely used in Africa for tuberculosis, protects against the new coronavirus have also begun in the Netherlands and Australia. But unlike those countries, where BCG vaccinations at birth aren't the norm, South Africa's trial involves injecting people for a second time. BCG injections are mandatory at birth in South Africa, where TB is a leading killer. (16)

Researchers of the Sheikh Khalifa Medical City in the UAE are working on a potential stem cell treatment for COVID-19. According to the team, the new treatment may help relieve coronavirus-related symptoms and could be brought to the market later in the year. The remedy uses a "minimally invasive" method where a COVID-19 patient's stem cells are extracted, activated and turned into a fine mist to be inhaled. This alleviates symptoms such as shortness of breath and possibly coughing. (17)

08

Changes in industries to help fight COVID-19

A recycling plant in Tanzania has started making and selling plastic face masks during the COVID-19 pandemic. The plant had a thriving business in processing waste paper which it exported to customers in China and India, earning it around \$37,000 in revenues monthly. However, orders have dwindled but the founder of the plant saw an opportunity. In recent weeks they had made 6,000 units that go for about \$2 apiece. (18)

Nestlé Cameroon donated CFA133 million in the form of 10 tons of food products to help more than 110,000 people in the country. (19)

SPAR Qatar has introduced thermographic cameras at the entrance of stores that perform body temperature checks to help prevent the spread of COVID-19. Visitors at SPAR Hypermarkets in Qatar are requested to face the camera near the information desk to have their temperature automatically screened as they enter the store. If an elevated body temperature is detected, the device emits a sound, and the customer is refused entry. (20)

An app called The Market Garden, launched in 2018 in Uganda, lets the vendors safely sell and deliver fruits and vegetables to customers from which the women are paid through the platform to limit the risk of the virus transmitting through the exchange of cash. (21)

LifeBank, a startup which ordinarily delivers blood and oxygen supplies to hospitals and patients, has been working with several partners to build drive-through testing facilities. On March 30, Lifebank collaborated with the Nigerian Institute of Medical Research (NIMR) to start a 2000-capacity drive-through center in the Yaba district of Lagos. Two weeks later, another mobile testing facility opened in the city of Ibadan, 130km south of Lagos, to test 2000 people within two weeks. (22)

09

TECHNOLOGICAL ADVANCEMENTS

Rwanda has installed a series of robots in an effort to minimize the risk of medical staff catching coronavirus. The robots carry out simple tasks, like checking temperatures and monitoring patients, thus reducing human exposure to the disease. By relaying messages to doctors and helping the team assess the effectiveness of their clinical decisions, the robots cut the number of bedside visits that doctors have to make. The robots were donated by the United Nations Development Programme. (23)

QuantLase Imaging Lab, the medical-research arm of the Abu Dhabi Stock Exchange, announced that it has developed novel equipment that uses artificial intelligence which enables for much faster mass screenings, with test results available in seconds and allowing testing on a wider scale. The device is suitable for use not only in hospitals and public places like cinemas and shopping malls, but with a 'little hands-on training' it can be used for in-house testing and monitoring. The lab hopes to be able to roll out the product in the market in a few months. (24)

Unique Group, a subsea technology firm, successfully completed beta testing on its Uni-Life 100, a non-invasive positive pressure ventilation system. The system was developed in Cape Town and has been designed to aid African countries in the fight against COVID-19. (25)

10

"Solas" translates to **light in Irish, and with news platforms and social media heavily focused on the unpleasant reality of COVID-19, this newsletter is to counterbalance it with **positive** news focusing on different regions.**

EUROPE

Prep date: June 2020

Drug/ Vaccine Developments

Scientists at Lazzaro Spallanzani National Institute for Infectious Diseases in Italy have claimed that a vaccine candidate could neutralize coronavirus within human cells. According to findings from the tests conducted at Spallanzani Hospital in Rome, the vaccine generated antibodies in mice that work on human cells to prevent the virus from infecting the cells. (26)

Over 400 volunteers in Belgium have already signed up to take part in clinical trials for a potential COVID-19 vaccine, set to begin in July. The vaccine trials by Janssen Pharmaceutica were announced in June, and are set to take place in Belgium and in the US. The Belgian pharmaceutical company is seeking to carry out the tests on 1,045 healthy adults aged 18 to 55, as well as adults over 65, the firm's parent company, Johnson & Johnson. The first phase of the trial, which was originally set to begin in September but was sped up to begin in the second half of July. (27)

11



A vaccine developed by the University of Oxford which is being supported by the UK government and pharmaceutical company AstraZeneca. The vaccine can provide protection for a year and results of the clinical trials is expected I August/September. (28)



Researchers at the University of Eastern Finland and the University of Helsinki is developing a nasal COVID-19 vaccine. The administration of the vaccine as a spray into the nose and the upper respiratory tract will start the formation of antibodies against the COVID-19 virus. For the vaccine, only the protein and not the virus itself, are needed. Many other vaccines use the disease-causing virus either in a weakened or in a modified form. They plan to begin clinical trials this autumn at the earliest. (29)





CHANGES IN INDUSTRIES TO HELP FIGHT COVID

Geneva-based start-up Hmcare announced that it has raised 1m Swiss Francs (\$1.05m) in funding to produce its HelloMask, which is a fully transparent surgical mask. The Swiss start-up said that the HelloMask will help meet a critical healthcare need for better verbal and non-verbal communication in medical settings, reducing the “fear and stress” caused by anonymity of carers wearing personal protective equipment. HelloMask allows the wearer’s face and expressions to be completely visible, while providing breathability and protection from pathogens, the company said. It hopes the mask will help build empathy and wellbeing through emotional connection. (30)

A new drone service will reduce delivery times for urgent medical supplies to a hospital on the Isle of Wight, which lies about 8 kilometres off the south coast of England. The fixed-wing, twin-engined UAV (unmanned aerial vehicle) has a range of 1000 kilometres (620 miles) and can carry a payload of up to 100 kilos in a hold around the size of an estate car boot. The aircraft can make the trip across the Solent, the water separating the island of 142,000 people from the mainland within about 10 minutes, much faster than the traditional ferry crossing, which takes about 30 minutes, and far cheaper than a normal flight. The UAV was developed at the University of Southampton, funded by startup Windracers, to distribute humanitarian aid. It has been given special permission to fly in Britain to assist with the government’s COVID-19 response. (31)



As part of its community investment support, Rio Tinto has allocated €40,000 in solidarity with the Government of Serbia and Serbian citizens to fight the COVID-19 outbreak. The company has donated € 20,000 to the Red Cross in Belgrade and € 20,000 to the Red Cross in Loznica. The donation will be used for the procurement and delivery of packages of essential foodstuff and hygiene items for the most vulnerable citizens of Belgrade and Loznica. (32)

Technological Advancements

Pyramid Computer, based in Germany, launched a health screening kiosk called 'polytouch® 32 curve - access control kiosk' which automatically measures human body temperature as part of authorizing personnel and visitor access to buildings and public areas. Combining contactless thermal temperature screening sensors with software from ZipKey - well-proven in border control passport verification and biometric facial recognition - the Pyramid polytouch® 32 curve kiosk offers a level of public access safety and accuracy. (33)

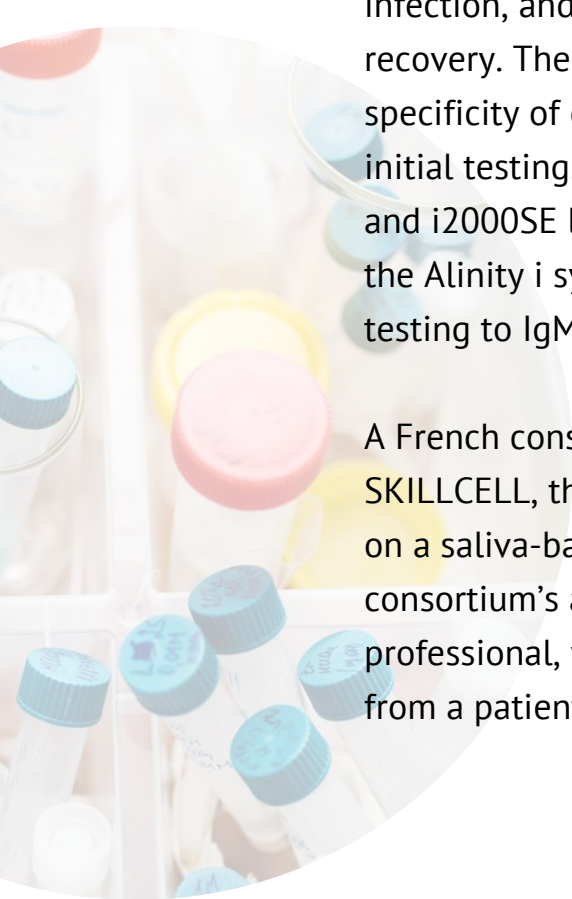
14

CONT...

GeneMe, a biotech company based in Gdańsk, Poland has developed “FRANKD” – a fast, scalable and reliable mouth swab test for COVID-19 that is completed on-premises in on average 13-25 minutes with no laboratory involvement. The test will cost businesses in the region of £10, making it cost-effective to perform mass daily testing and point-of-entry testing at care homes, airports, offices and many other locations. With consent, results are automatically issued on to each individual’s secure, free Yoti digital ID app. Testing on-premises by trained staff removes delays and the challenge of getting test samples to lab technicians to process. (34)

Abbott has announced the receipt of a CE mark for its lab-based Covid-19 antibody test, thousands of which have already started shipping across Europe. The SARS-CoV-2 IgG test identifies Covid-19 IgG antibody, a protein the body produces in the late stages of infection, and which can linger for months or even years after recovery. The test was able to demonstrate both sensitivity and specificity of over 99% 14 days or more after symptoms start during initial testing. The test will initially run on Abbott’s Architect i1000SR and i2000SE lab instruments and will expand to the Alinity i system. Abbott plans to expand its Covid-19 antibody testing to IgM antibodies in the near future. (35)

A French consortium - comprised of French companies Vogo, SKILLCELL, the CNRS SYS2DIAG laboratory and INOVIE – are working on a saliva-based screening test to detect COVID-19. The consortium’s aim is for the test to be performed by a healthcare professional, which involves collecting less than 1 milliliter of saliva from a patient. (36)



15

SOUTH AMERICA

Prep date: June 2020

Drug/ Vaccine Developments



As of June 25th 2020, there are 374 drugs in Phase 0, 11 drugs in Phase I, 34 drugs in Phase II, and 8 in Phase III. There are no drugs that have moved on to Phase IV. (37)

Scientists from Brazil, Chile and Peru have begun their research into developing a COVID-19 vaccine in a bid to ensure access and to limit the dependency on other countries. (38)

Sinovac Biotech (China) partnered with Brazil-based Instituto Butantan to advance its COVID-19 vaccine candidate, CoronaVac, into Phase III clinical trials. The partners may enter additional agreements in the future for technology licensing, market authorization and commercialization of CoronaVac (39)

Brazil's health regulator Anvisa has approved clinical trials of a COVID-19 vaccine candidate developed by researchers at University of Oxford in the UK and supported by AstraZeneca. The Phase III trial will assess the safety and efficacy of the vaccine candidate, ChAdOx1 nCoV-19. The Federal University of Sao Paulo (Unifesp) will help conduct the study, which is set to begin this month and enroll 2,000 participants. Unifesp intends to enroll 1,000 front-line COVID-19 volunteers who have not been infected. (40)

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CONT...

A team of scientists in Argentina is working on obtaining monoclonal antibodies from hens and llamas in a bid to produce both a vaccine and a drug for COVID-19. The team is betting that antibodies obtained from llamas may be used to develop a vaccine as well as a drug for COVID-19 patients. (41)

Technological Advancements

A Uruguayan laboratory, Aravanlabs, is manufacturing test tubes that store and transport COVID-19 swab samples effectively and guarantee accurate results. Test tubes need to provide an optimal environment for samples so that if the SARS-CoV-2 (COVID-19) is present it arrives in perfect condition to the testing laboratory. In early April the company created its first batch, which it took to different Uruguayan institutions to verify the product's efficiency and then launched into the production of 500 units per day, a figure that they expect to increase to 3,000 due to international demand. (42)

Argentine scientists are producing a new test called "NEOKIT-COVID-19" which allows detection of the virus in less than two hours. The test will be at a low cost for \$8 making it inexpensive and accessible. (43)

Brazilian hospital Albert Einstein announced the creation of a new highly scalable type of COVID-19 test developed by Varstation, one of the startups supported by the hospital's incubation program. The technique, which will be available from June, is able to process more than 1,500 samples simultaneously, could provide a significant boost to the country's testing capacity. (44)

Changes in industries to help fight COVID-19

Volkswagen in Brazil have made 100 vehicles available for commuting doctors and nurses, as well as for the transport of medicines and health equipment. The cars were made available to the municipalities of São Bernardo do Campo, Taubaté and São Carlos and São José dos Pinhais as well as the federal Government of the State of São Paulo. (45)

Grupo Exito will supply 500,000 basic groceries to people who lost their job due to the Coronavirus pandemic. As well as this Grupo Exito will also supply free delivery of groceries to Colombian health workers (46)

AquaChile has converted its laboratory, normally used for molecular biology testing on salmon, for additional COVID-19 testing in Chile. This conversion is hoped to increase testing for the southern part of the country. (47)

The hygiene company, Always, will donate 200 thousand Brazilian Reales to encourage research on the new coronavirus and encourage the participation of women in science. It will also deliver 200 thousand free units of absorbent to doctors, nurses, cleaning service workers and receptionists in hospitals in São Paulo. (48)



18

NORTH AMERICA

Drug/ Vaccine Developments

Prep date: June 2020



Researchers at the Autonomous University of Nuevo León (Mexico) are developing an edible COVID-19 vaccine using genetically modified tomatoes which would stimulate the immune response of the body to generate antibodies against the virus. This project resumes and investigation that began in 2017, initially for Dengue, Zika and Chikungunya. The benefits in using plants are lower production costs, less time to obtain the antigenic product, and more security. (49)

A vaccine against COVID-19 developed by US biotech firm Moderna will enter the third and final stage of its clinical trial in July with 30,000 participants, the manufacturer has announced. (50)

Entos Pharmaceuticals (Canada) has selected two promising vaccine prototypes to start testing in people. The Entos vaccine is DNA-based. Unlike a traditional vaccine which gives patients an inactive virus to teach the body to fight the real thing, a genetic vaccine supplies a DNA blueprint for battle. Phase 1 is expected to start in August in Halifax. Phase 2 could start in September, expanding across Canada and the U.S. (51)

The University of Saskatchewan (USask) in Canada has reported positive data from preclinical studies of the COVID-19 vaccine candidate developed by its Vaccine and Infectious Disease Organization-International Vaccine Centre (VIDO-InterVac). The vaccine demonstrated so far high effectiveness in ferrets, one of the animal models commonly used for COVID-19. (52)

Changes in industries to help fight COVID-19

The Marena Group LLC, a Georgia-based medical device manufacturer, announced that it has immediately begun producing new non-surgical masks for children in response to the COVID-19 pandemic. The washable and reusable antibacterial masks will be produced in three different sizes suited for children ages 5-16. Now, Marena is ensuring the whole family has properly sized, comfortable masks to stay healthy and safe. Marena's masks for children are durable, breathable, flame resistant, and have antibacterial protection to help guard against the spread of COVID-19. (53)

Self-driving cars, trucks, sidewalk robots and shuttles are rolling out of the labs and parking garages and onto American streets to help deliver groceries, meals, and medical supplies. Although self-driving car companies have paused on-road testing in the U.S., as it is not considered an essential business, pivoting to deliveries allows them back on the road to gather more data. None of the three companies engaging in this are making any money from their deliveries, but are gaining experience and data on delivery operations, several operators said. (54)

Furthering its commitment to provide greater access to COVID-19 testing and community resources, Walgreens is working to expand drive-thru testing to 15 new sites in seven states, the company announced. The states included are Arizona, Florida, Illinois, Kentucky, Louisiana, Tennessee and Texas. The expansion is a next step building on Walgreens' collaboration with the Administration, federal health agencies, and state and local authorities. (55)

Hannaford Supermarkets dietitians are offering health and wellness tips during this pandemic. A wide range of topics were covered from how to store produce to maximize its freshness, how to incorporate immunity-boosting foods into your diet and discussing money saving strategies while grocery shopping and eating healthy on a budget. (56)

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Technological Advancements

Prime Home Health Services, a modern certified home care agency, has recently launched at-home monitoring of COVID-19 patients, tracking their health remotely through technology from MonitorMe, an all-in-one health and wellness concierge monitoring program. MonitorMe's system uses a wireless patch that is attached to the left side of a patient's chest and relays heart rate and electrical activity, breathing rate and oxygen levels. (57)

A Korean molecular diagnostic company, Gencurix, Inc., has announced that they have received U.S. Food and Drug Administration (FDA)'s Emergency Use Authorization (EUA) for its GenePro SARS-CoV-2 Test. It is the second RT-PCR test that Gencurix has launched following the first test assay, GenePro COVID-19 Detection Test released last March. Key advantages of GenePro SARS-CoV-2 test include simultaneous monitoring of up to 384 samples which would allow high throughput screening of the novel coronavirus. With the FDA's EUA, Gencurix is now able to provide its COVID-19 detection tests the U.S. nationwide. (58)



21

Scientists from the University of Maryland School of Medicine developed an experimental diagnostic test for COVID-19 that can visually detect the presence of the virus in 10 minutes. The test uses nanoparticles – tiny particles that are undetectable by the human eye - to detect a color change from purple to blue when the virus is present. This test could be far less expensive to produce and process than a standard COVID-19 lab test; it does not require laboratory equipment or trained personnel to run the test and analyze the results. (59)

A group of tech companies – SkyWater Technology, Linear ASICs, Asymmetric Return Capital - is working on a patch about the size of small bandage that could be worn to monitor for the elevated body temperatures that can sometimes signal the onset of COVID-19. The patch is intended to be worn on the skin and to connect wirelessly to a smart phone to monitor a person's body temperature, the companies said. The companies hope to use artificial intelligence to analyze signals such as the sounds of coughs to identify unique patterns for COVID-19 symptoms. (60)



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AUSTRALASIA

Prep date: June/July 2020

Drug/ Vaccine Developments

As of July 1st 2020, there are 379 drugs in Phase 0, 13 drugs in Phase I, 37 drugs in Phase II, and 8 in Phase III. There are no drugs that have moved on to Phase IV. (61)

Australian researchers have reportedly made a global breakthrough on a new antiviral drug they believe can protect against COVID-19 infection. Monash University researchers have conducted modelling of the drug to show it has significant blocking ability against the virus that causes COVID-19. Researchers hope the drug, which could be administered by an inhaler, might be available as early as the end of the year. (62)

Sydney researchers are turning to a vaccine that has been in use for almost 100 years, for a trial to protect healthcare workers from COVID-19. Employees at the Children's Hospital at Westmead will trial the BCG tuberculosis vaccine to see if it can add protection to human lungs exposed to the coronavirus. The vaccine - its full name is Bacillus Calmette-Guérin, named after its French researchers - has been used for decades to protect against tuberculosis, which also attacks the lungs. The trial was launched at Westmead on Friday, by the Bill and Melinda Gates Foundation, NSW Health and Murdoch Children's Research Institute. It has the backing of the World Health Organisation and the Health Services Union, which is contributing \$350,000 to the research. (63)



CHANGES IN INDUSTRIES TO HELP FIGHT COVID

Coming to the aid of a medical system crushed world-wide by the COVID-19 pandemic, ANCA has joined an important consortium to rapidly manufacture invasive ventilators within Australia. This initiative directly addresses the critical supply of mechanical ventilation equipment to support COVID-19 patients requiring ventilation to survive. Banding together with other Australian manufacturing businesses, the consortium can harness various industry capabilities to make more ventilators sooner. (64)

Over 300,000 liters of hand sanitizer has been supplied by local Indigenous businesses to Woolworths Group to keep its retail store teams and customers safe during COVID-19. Woolworths Group approached small Indigenous owned businesses such as Supply Aus when COVID-19 was at its peak to get much needed hand sanitizer supplies to its stores. Woolworths Group has invested over \$5.9 million to back these local Indigenous businesses to ensure these companies could continue to operate. Victorian-based Indigenous company Supply Aus was on the brink of collapse with only \$5000 in their bank account due to the impact of COVID-19 on their business. Through Woolworths Group's upfront investment, Supply Aus were able to go above and beyond, chartering a plane to bring over 100 tons of hand sanitizer into the country to help those at risk at a time it was needed most. (65)

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To help combat the spread of COVID-19 in remote communities in Western Australia, Northern Territory and Queensland, the Australian mining company Rio Tinto has partnered with Perth-based freight and logistics provider Matic Transport to donate 6,000 liters of hand cleaning products. The supplies of anti-bacterial and anti-viral hand cleaning products recently departed Perth on a 15,000 kilometer journey across the top of the country thanks to Matic Transport who have donated their time and freight services to distribute the products. Rio Tinto has sourced the anti-bacterial and anti-viral hand cleaning products from a local family-owned Western Australian manufacturer based in Perth. (66)



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Technological Advancements

Health authorities are using what they describe as a world-first saliva test for coronavirus in Australia's second-largest city where the disease is spreading at an alarming rate. Australian Deputy Chief Medical Officer Nick Coatsworth told Australian Broadcasting Corp. on Monday the saliva test was being rolled out in Victoria state, where Melbourne is the capital, and its effectiveness was still being tested. Coatsworth said the less-comfortable nasal test remained the preferred option and may be more accurate, but the saliva test “will be great, particularly for kids.” (67)

Staff at University of Technology Sydney in Australia have designed a drive-through coronavirus testing center in a converted shipping container, which is being hosted at the university. This fully functioning prototype has been trialed by Sonic Clinical Trials for nearly a month. Its designers claim it is the country's “first purpose-built mobile Covid-19 testing center”. Deborah Ascher Barnstone, a professor at the University of Technology Sydney (UTS), and architect Robert Barnstone, who work together as Ascher Barnstone Design, designed the testing center as a low-cost medical facility that could be easily transported to less developed countries. The container is designed to be a comfortable and sheltered place for medical staff to use instead of standing outside or under a thin tent. (68)

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