THE ICGEB IS LAUNCHING AN ON-LINE, OPEN ACCESS COVID-19/SARS-CoV-2 RESOURCE PLATFORM AT WWW.ICGEB.ORG

TO PROVIDE RESOURCES, TOOLS AND KNOW-HOW TO FIGHT THE SARS-CoV-2 VIRUS THAT CAUSES COVID-19, FREE OF CHARGE, TO ITS MEMBER STATES

Press Release

The ICGEB COVID-19/SARS-CoV-2 Resource Page provides information on procedures and essential reagents that can be developed ‘in house’, without bought in kits. Information is also provided for isolating and working with the virus and for sequencing for subsequent surveillance purposes. All of this is backed up by direct technical assistance with on-line video tutorials on the isolation and detection of Sars-CoV-2 RNA.

Alessandro Marcello, Group Leader, Molecular Virology laboratory, ICGEB Trieste, Italy, reached a major goal in the battle against coronavirus, isolating and sequencing the full genome of SARS-Cov-2 on 20 March 2020. In the Friuli Venezia Giulia Region in North-Eastern Italy, the first cases of COVID-19 were identified on 1 March 2020. A task-force to isolate and sequence the SARS-CoV-2 virus circulating in the Region was swiftly formed in Trieste, to include Alessandro Marcello, Pierlanfranco D’Agaro, head of the diagnostic reference centre, “Azienda Sanitaria Universitaria Giuliano Isontina” and Danilo Licastro, responsible for the Genome sequencing platform, AREA Science Park. The full-genome sequencing of viral isolates is required to understand the genetic evolution of the virus during the pandemic and to track the origin of the viruses that reached the Region. The availability of viral isolates allows for research on diagnostics, antivirals and vaccines to take place effectively.

At the ICGEB, a biosafety level 3 laboratory for pathogenic virus manipulation has special engineering and containment features that allow investigators to work safely with known or possible human pathogens, including coronavirus. Initial work is focusing on the setup of molecular and serological assays for COVID-19. This is essential to identify infected individuals and those who have already experienced the infection. Candidate antiviral drugs can now be tested on the virus, which is the first step towards a cure, and the immunological response capable of neutralising the virus can be fully studied. Studies are also underway at ICGEB New Delhi, India for repurposing a botanical drug and the development of monoclonal antibodies for treating SARS-CoV-2 infections.

The ICGEB platform, which has been fully integrated into the state-of-the-art Web site at ICGEB, offers Tools with links to Resources and Procedures, including Protocols for Standard Operating Procedures (SOP) in the preparation, isolation and detection of Sars-CoV-2 RNA by Polymerase Chain Reaction (PCR), Reagents for positive control (according to diagnostic procedures recommended by the World Health Organisation)
(WHO), and a Sequencing Service for local isolates of the virus, through our partner lab in the AREA Science Park. The ICGEB is offering Technical Assistance in the form of on-line Video Tutorials in the preparation, isolation and detection of Sars-CoV-2 RNA, as well as Remote, Technical Assistance during the reproduction of SOPs.

In addition, following recent reports about the possible beneficial effect of interferon alpha in COVID-19 infections (links to further documentation are available on the Web Resource page), ICGEB is offering its Interferon IFN protocol for the production of interferon alpha, developed in the Biotechnology Development Unit in Trieste, to Member States, upon request, free of charge.

Lawrence Banks, ICGEB Director-General states: “Even in this time of unprecedented disruption the ICGEB is actively working to fulfil its mandate to assist its Member States, by providing invaluable tools and expertise to the front lines of research in the field, fundamental, particularly, in many low resource settings. We are witnessing a wonderful dedicated effort by ICGEB researchers and staff who together are working closely with the Italian Regional and National Authorities for the greater global benefit.”

The Web page at: https://www.icgeb.org/covid19-resources/

provides direct links to Further Training Opportunities, the opportunity for direct interaction with our Research Experts and PIs, who are focusing efforts on the current global health emergency. Contact information, recent updates and other links are also provided.

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