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Taiwan to accelerate COVID-19 research with 3 new collaborations

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Taiwan's National Applied Research Laboratories (NARL) is collaborating with IBM, Qiagen and SchrÃ?Â¶dinger



Taiwan's National Applied Research Laboratories (NARL) has announced its collaboration with three international technology companies to provide Taiwanese researchers with resources to accelerate drug discovery and treatment in response to the COVID-19 coronavirus pandemic.

NARL's National Center for High-Performance Computing said that following its partnership with graphics chipmaker NVidia Corp., it is collaborating with American multinational technology company IBM, molecular diagnostics and sample preparation technologies provider Qiagen, and Schrödinger, a leading provider of advanced molecular simulations and enterprise software solutions to support researchers studying COVID-19.

IBM provides qualified researchers and medical experts with free access to its Functional Genomics Platform, which contains over 300 million molecule sequences from 1,000 microorganisms and many gene, protein domains and metabolic paths for studies to help with the development of a potential treatment for the novel coronavirus.

COVID-19 researchers can apply to use the cloud-based, interactive data repository free for a six month period through the artificial intelligence platform, the Taiwan Computing Cloud (TWCC), according to the national computing center.

Qiagen is making available its two major bioinformation analysis software programs CLCBio Genomics Workbench and Ingenuity Pathway Analysis (IPA).

CLCBio Genomics Workbench supports a complete re-sequencing pipeline for detecting and comparing genetic variants.

IPA is a web-based software application that enables analysis, integration and understanding of data from gene expression, miRNA, and SNP microarrays, as well as metabolomics, proteomics, and RNAseq experiments.

By using the TWCC and CLCBio Genomics Workbench, COVID-19 researchers will be able to accelerate their analysis of gene sequences and study the damage caused by the novel coronavirus to human body, according to the center.

In addition, COVID-19 researchers will have access to Schrödinger's full-featured suite of drug design software, a computational platform that can accelerate drug discovery and molecular design projects.