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Singapore's EDDC to discover new AI-driven COVID-19 therapies

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The collaboration with Auransa will fast track research by combining predictive AI with molecular data to discover new therapeutic strategies for viral pandemics

Auransa, Inc., an artificial intelligence (AI)-driven pharmaceutical company, on 29 Sep 2020 announced a research collaboration around drug discovery to fight COVID-19 and coronaviruses in general, with the Experimental Drug Development Centre (EDDC), Singapore's national platform for drug discovery and development.

The partnership brings together two organizations with complementary expertise and a shared goal of improved pandemic response. Auransa's proprietary predictive computational platform, SMarTR™ Engine, leverages machine learning, advanced analytics, and mathematics in an AI framework to generate insights from molecular data on the disease biology and patient subtypes.

EDDC possesses a full range of drug discovery capabilities, including assay development, high throughput screening, antibody cloning, medicinal chemistry, and ADME/toxicology. These capabilities allow EDDC to identify drug hits and leads, and develop them to the preclinical candidate stage in-house.

There is wide recognition of the need for medicines to treat COVID-19 patients in the absence of a vaccine or the lack of adequate immune response to vaccines. The collaboration will address this challenge with therapeutics that disrupt the replication machinery of the novel coronavirus. This will help patients to fight the effects of the virus, thereby limiting the severity of current and future viral pandemics on patients and healthcare infrastructures.

Professor Damian O'Connell, chief executive officer of EDDC, Agency for Science, Technology and Research (A*STAR), said: "This research collaboration leverages advanced technologies to develop therapeutic strategies against the virus causing COVID-19. We are pleased to combine EDDC's drug discovery and development capabilities with Auransa's innovative AI platform to contribute to the fight against coronaviruses in the current pandemic and beyond."