iReceptor Plus presents the world's largest database of sequencing data of t and b cell receptors of coronavirus patients

The international consortium is now offering its technology tools and infrastructure to share and analyze this unprecedented data resource with the scientific community, drug companies and researchers.

HEALTH

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The international iReceptor Plus consortium has gathered data of almost 200 million sequences of T and B cell receptor repertoires from COVID-19 patients. It is now offering its technology tools and infrastructure to share and analyze this unprecedented data resource with the scientific community, drug companies and researchers.

The EU- and Canadian-funded project currently offers information from seven different COVID-19 research studies carried out in the United States, Germany, the United Kingdom and China, with multiple patients through the iReceptor Gateway. This data is critical to the search for anti-COVID-19 therapeutics and vaccines. iReceptor Plus intends to add additional data sets in the coming weeks.

iReceptor Plus is dedicated to sharing and analyzing antibody and T-cell receptor (AIRR-seq) data from the immune system to accelerate vaccine discovery against pathogens such as the novel coronavirus.

"iReceptor Plus offers the only repository from which data from several COVID-19

studies can be compared to each other, and for such a large collection of immune receptor sequences from multiple diseases, laboratories and institutions," said Prof. Felix Breden, iReceptor Plus's scientific manager.

"Researchers are responding to the pandemic by volunteering to share their data publicly, and the iReceptor Gateway is a unique resource that facilitates this sharing among geographically distributed and independent institutions, allowing access to almost limitless amounts of data. Such data sharing should greatly accelerate research into anti-COVID therapeutics and vaccines," he added.

"The new data can lead to discovering biomarkers, which can provide tools for diagnosis and treatment to prevent infection from COVID-19," said Gur Yaari, associate professor at Bar-Ilan University, iReceptor Plus Project coordinator. "The COVID-19 data sets provide the infrastructure and data for the benefit of researchers in academia and industry alike."

Scientists are invited to join this collaborative effort. Having these data available allows researchers to easily access the data in a usable form.

Keywords

Covid-19 | T cell | B cell | diagnostic | therapeutic | vaccine research

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