Creative Biolabs Highlights Ambitions on AI-Based Antibody Discovery Targeting SARS-CoV-2

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New York City, New York Nov 23, 2022 (Issuewire.com) - Emerging infectious diseases are an ever-present threat to public health, and COVID-19, caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), is the most recent example. There is an urgent need to develop a robust framework to combat the disease with safe and effective therapeutic options, and Creative Biolabs is planting its flag in antibody design while announcing the expansion of its Artificial Intelligence (AI)-powered drug discovery platforms to cover SARS-CoV-2 antibody research.

Based on integrated all-round resources and existing research results, Creative Biolabs has updated comprehensive neutralizing antibody (NAb) discovery services targeting SARS-CoV-2 to help clients rapidly develop effective NAbs to prevent, treat, and diagnose SARS-CoV-2 infection *in vitro, ex vivo,* and *in viv*o.

Several methods have been established to generate specific and humanized NAbs, including the immunization of transgenic mice, cloning of small chain variable regions from convalescent patients, naive human antibody phage display libraries, and the immortalization of convalescent B cells.

Recently, an AI-powered antibody drug discovery platform has been unveiled to support a series of AI-augmented antibody discovery services for research, diagnostics, and therapeutics. Combining cutting-edge artificial intelligence, big data, and phage display techniques to discover rare antibodies and expand antibody diversity, Creative Biolabs can help accelerate the discovery of novel NAbs through:

* Discover and analyze new antibody clusters

* Generate new sequences within existing clusters

* Accelerate the generation of diverse, high-affinity antibodies

* Rapidly generate novel antibody sequences using computational algorithms with improved affinity, solubility, cross-reactivity, manufacturability, immunogenicity, specificity, and stability.

“COVID-19 is the most important global health problem nowadays, and AI once helped on identifying the genomic sequencing of the SARS-CoV-2 virus, so we think highly of AI’s role as a digital arming in the development of new drugs, vaccines, diagnostic methods, and forecasting programs. We hope to utilize AI to ameliorate our antibody discovery services while accelerating the process of the fight against SARS-CoV-2,” introduced Bella Smith, the Business Development Executive at Creative Biolabs.

The scientist team at Creative Biolabs is always prepared to learn about clients’ projects, share experiences, and quickly and efficiently answer complex research questions.

About Creative Biolabs

As a leading custom service provider in antibody development and engineering, Creative Biolabs has established cutting-edge technologies to support functional biomolecule development for infectious diseases. The service portfolio is comprised of anti-infective antibody discovery and small molecule drug discovery for a wide range of virus, bacterial, and parasite infections. Now, the service is enhanced with an experimentally-certified AI drug discovery platform, providing intelligent solutions to accelerate clients' drug discovery.

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