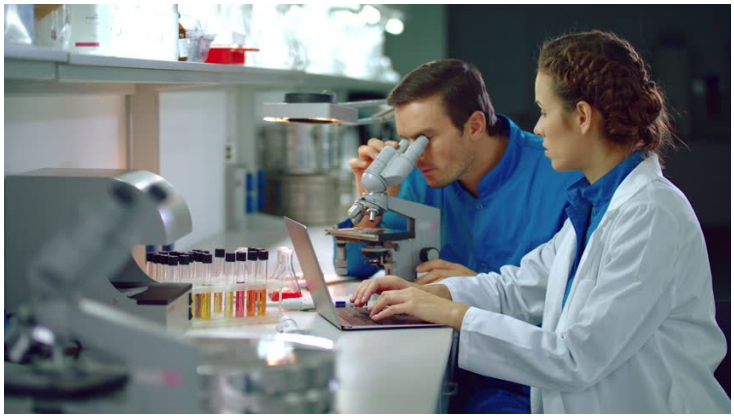
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ASIA EDITION

Atreca, BeiGene, IGM Biosciences to develop novel antibody treatment for COVID-19

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Companies to utilize proprietary platforms to discover, develop, and manufacture potential therapeutic antibodies to combat ongoing COVID-19 pandemic



US based companies Atreca, Inc., and IGM Biosciences, Inc.along with Chinese firm BeiGene, Ltd. have announced their plans to collaborate to help address the COVID-19 pandemic.

The companies will leverage their combined technology and expertise in an effort to discover, develop, and manufacture novel IgM and IgA antibodies targeting SARS-CoV-2 for the potential treatment of COVID-19. Given the urgency of the global COVID-19 pandemic, the parties have agreed to begin work immediately and plan to finalize financial details and other terms in the future.

Immunoglobulin M (IgM) and immunoglobulin A (IgA) are classes of antibodies naturally produced by the human immune system and are differentiated from immunoglobulin G (IgG) antibodies in part by their greater number of binding domains (IgM: 10, IgA: 4, IgG: 2).

IGM Biosciences engineers IgM and IgA antibodies with greater binding power per antibody, relative to comparable IgG antibodies. This greater binding power could potentially result in better activity against a broader range of variants of the virus which causes COVID-19, as compared to traditional IgG antibodies. IgA and IgM antibodies also have the inherent property of active transport from the blood stream to mucosal surfaces, such as in the lung, which may provide a therapeutic advantage for respiratory diseases such as COVID-19.

The alliance will utilize Atreca's proprietary discovery platform to generate the sequences of antibodies made by particular B cells found in blood obtained from acutely infected COVID-19 patients. IGM's technology platform will then be leveraged in an effort to develop and manufacture engineered IgM and IgA therapeutic antibodies from the identified sequences.

BeiGene has agreed to provide global clinical development support by leveraging its more than 1,100-person global development team across China, the United States, Europe, and Australia, including leading global regulatory interactions for any potential drug candidate that is developed. BeiGene is a leader in global clinical development with 26 potentially registration-enabling trials ongoing and over 60 studies enrolling patients in more than 35 countries. Its large, global clinical development team is focused on high-quality, efficient drug development optimized for global regulatory submissions.