

# REGENERON®

## Regeneron Announces Important Advances in Novel COVID-19 Antibody Program

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**Regeneron has identified hundreds of virus-neutralizing antibodies; plans to initiate large-scale manufacturing by mid-April with antibody cocktail therapy**

**Potential to enter human clinical studies by early summer**

**This program is in addition to Regeneron's separate ongoing clinical program evaluating Kevzara® (sarilumab, an IL-6 receptor antibody) in severe COVID-19 patients**

[Regeneron Pharmaceuticals, Inc.](#) (NASDAQ: REGN) today announced the latest progress in its efforts to discover and develop a novel multi-antibody cocktail that can be administered as prophylaxis before exposure to the SARS-CoV-2 virus or as treatment for those already infected. Regeneron scientists have now isolated hundreds of virus-neutralizing, fully human antibodies from the company's *VelocImmune*® mice, which have been genetically-modified to have a human immune system. Regeneron has also isolated antibodies from humans who have recovered from COVID-19, in order to maximize the pool of potentially potent antibodies. From this large pool of candidates, Regeneron will select the top two antibodies for a 'cocktail' treatment based on potency and binding ability to the SARS-CoV-2 spike protein, as well as other desirable qualities. Using a multi-antibody approach allows for targeting of different parts of the virus and may help protect against multiple viral variants. Regeneron previously used these technologies to rapidly develop a [successful treatment](#) for Ebola virus infection, which is currently under review by the U.S. Food and Drug Administration.

In order to meet the pressing public health need, Regeneron is applying its *VelociMab*® technology to prepare manufacturing-ready cell lines as lead antibodies are selected, so that clinical-scale production can begin immediately. The company is working toward the goal of producing hundreds of thousands of prophylactic doses per month by the end of summer and hopes to have smaller quantities available for initial clinical testing at the beginning of the summer. The company is working with the U.S. Health & Human Services' Biomedical Advanced Research and Defense Authority (BARDA) to increase capacity even further.

"Our three decades of investment in our *VelociSuite* antibody technologies, which accelerate and improve the traditional drug discovery process, have hopefully prepared us for this critical time and to meet this important challenge," said George D. Yancopoulos, M.D., Ph.D., Co-founder, President and Chief Scientific Officer of Regeneron. "Given the tremendous interest and concern around the COVID-19 pandemic, we will be providing regular and transparent updates on our discovery and development programs. I want to recognize our incredible team, which is working around the clock to develop needed solutions to this global health crisis."

All coronaviruses have a single glycoprotein on the virus surface called the spike protein, which is the protein on the virus cell surface that binds to the host cell and is required for infectivity. Regeneron's SARS-CoV-2 antibodies will target the spike protein in order to block its interaction with the host cell, and thus neutralize the virus.

"I'm so proud to be part of this cross-company team, which delivered a novel and effective fully human antibody treatment for Ebola in record time and is making every effort to once again rise to this unprecedented challenge," said Christos Kyratsous, Ph.D., Vice President of Research, Infectious Diseases and Viral Vector Technologies at Regeneron.

Yesterday, Regeneron and its collaborator Sanofi also [announced the initiation](#) of a Phase 2/3 clinical trial evaluating Kevzara® (sarilumab) in patients hospitalized with severe COVID-19. Kevzara inhibits interleukin-6 (IL-6), which may play a role in driving the overactive inflammatory response in the lungs of patients who are severely or critically ill with COVID-19.

### About Regeneron

Regeneron (NASDAQ: REGN) is a leading biotechnology company that invents life-transforming medicines for people with serious diseases. Founded and led for over 30 years by physician-scientists, our unique ability to repeatedly and consistently translate science into medicine has led to seven FDA-approved treatments and numerous product candidates in development, all of which were homegrown in our laboratories. Our medicines and pipeline are designed to help patients with eye diseases, allergic and inflammatory diseases, cancer, cardiovascular and metabolic diseases, pain, infectious diseases and rare diseases.

Regeneron is accelerating and improving the traditional drug development process through our proprietary

VelociSuite® technologies, such as VelocImmune® which uses unique genetically-humanized mice to produce optimized fully-human antibodies and bispecific antibodies, and through ambitious research initiatives such as the Regeneron Genetics Center, which is conducting one of the largest genetics sequencing efforts in the world.

For additional information about the company, please visit [www.regeneron.com](http://www.regeneron.com) or follow @Regeneron on Twitter.

### **Regeneron Forward-Looking Statements and Use of Digital Media**

*This press release includes forward-looking statements that involve risks and uncertainties relating to future events and the future performance of Regeneron Pharmaceuticals, Inc. ("Regeneron" or the "Company"), and actual events or results may differ materially from these forward-looking statements. Words such as "anticipate," "expect," "intend," "plan," "believe," "seek," "estimate," variations of such words, and similar expressions are intended to identify such forward-looking statements, although not all forward-looking statements contain these identifying words. These statements concern, and these risks and uncertainties include, among others, the nature, timing, and possible success and therapeutic applications of products marketed by Regeneron and/or its collaborators (collectively, "Regeneron's Products") and Regeneron's product candidates and research and clinical programs now underway or planned, including without limitation Regeneron's novel antibody cocktail for the prevention and treatment of the SARS-CoV-2 virus (the "COVID-19 Multi-antibody Therapy") and Kevzara® (sarilumab) for the treatment of patients with severe COVID-19; the likelihood, timing, and scope of possible regulatory approval and commercial launch of Regeneron's product candidates and new indications for Regeneron's Products, such as the COVID-19 Multi-antibody Therapy and Kevzara for the treatment of patients with severe COVID-19; the likelihood and timing of achieving any of the anticipated development and production milestones referenced in this press release; unforeseen safety issues resulting from the administration of Regeneron's Products and product candidates (such as Kevzara and the COVID-19 Multi-antibody Therapy) in patients, including serious complications or side effects in connection with the use of Regeneron's Products and product candidates in clinical trials; determinations by regulatory and administrative governmental authorities which may delay or restrict Regeneron's ability to continue to develop or commercialize Regeneron's Products and product candidates, including without limitation Kevzara and the COVID-19 Multi-antibody Therapy; ongoing regulatory obligations and oversight impacting Regeneron's Products, research and clinical programs, and business, including those relating to patient privacy; uncertainty of market acceptance and commercial success of Regeneron's Products and product candidates and the impact of studies (whether conducted by Regeneron or others and whether mandated or voluntary) on the commercial success of Regeneron's Products and product candidates; the availability and extent of reimbursement of Regeneron's Products from third-party payers, including private payer healthcare and insurance programs, health maintenance organizations, pharmacy benefit management companies, and government programs such as Medicare and Medicaid; coverage and reimbursement determinations by such payers and new policies and procedures adopted by such payers; competing drugs and product candidates that may be superior to Regeneron's Products and product candidates; the extent to which the results from the research and development programs conducted by Regeneron or its collaborators may be replicated in other studies and lead to therapeutic applications; the ability of Regeneron to manufacture and manage supply chains for multiple products and product candidates; the ability of Regeneron's collaborators, suppliers, or other third parties (as applicable) to perform manufacturing, filling, finishing, packaging, labeling, distribution, and other steps related to Regeneron's Products and product candidates; unanticipated expenses; the costs of developing, producing, and selling products; the ability of Regeneron to meet any of its financial projections or guidance and changes to the assumptions underlying those projections or guidance; the potential for any license or collaboration agreement, including Regeneron's agreements with Sanofi, Bayer, and Teva Pharmaceutical Industries Ltd. (or their respective affiliated companies, as applicable), to be cancelled or terminated without any further product success; and risks associated with intellectual property of other parties and pending or future litigation relating thereto (including without limitation the patent litigation and other related proceedings relating to Dupixent® (dupilumab) and Praluent® (alirocumab)), other litigation and other proceedings and government investigations relating to the Company and/or its operations, the ultimate outcome of any such proceedings and investigations, and the impact any of the foregoing may have on Regeneron's business, prospects, operating results, and financial condition. A more complete description of these and other material risks can be found in Regeneron's filings with the U.S. Securities and Exchange Commission, including its Form 10-K for the year ended December 31, 2019. Any forward-looking statements are made based on management's current beliefs and judgment, and the reader is cautioned not to rely on any forward-looking statements made by Regeneron. Regeneron does not undertake any obligation to update publicly any forward-looking statement, including without limitation any financial projection or guidance, whether as a result of new information, future events, or otherwise.*

Regeneron uses its media and investor relations website and social media outlets to publish important information about the Company, including information that may be deemed material to investors. Financial and other information about Regeneron is routinely posted and is accessible on Regeneron's media and investor relations website (<http://newsroom.regeneron.com>) and its Twitter feed (<http://twitter.com/regeneron>).

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