Sanofi and Regeneron provide update on Kevzara® (sarilumab) Phase 3 U.S. trial in COVID-19 patients

PARIS and TARRYTOWN, N.Y. - July 2, 2020 – Sanofi and Regeneron Pharmaceuticals, Inc. (NASDAQ: REGN) today announced that the U.S. Phase 3 trial of Kevzara® (sarilumab) 400 mg in COVID-19 patients requiring mechanical ventilation did not meet its primary and key secondary endpoints when Kevzara was added to best supportive care compared to best supportive care alone (placebo).

Minor positive trends were observed in the primary pre-specified analysis group (critical patients on Kevzara 400 mg who were mechanically ventilated at baseline) that did not reach statistical significance and these were countered by negative trends in a subgroup of critical patients who were not mechanically ventilated at baseline. In the primary analysis group, adverse events were experienced by 80% of Kevzara patients and 77% of placebo patients. Serious adverse events that occurred in at least 3% of patients and more frequently among Kevzara patients were multi organ dysfunction syndrome (6% Kevzara, 5% placebo) and hypotension (4% Kevzara, 3% placebo).

Based on the results, the U.S.-based trial has been stopped, including in a second cohort of patients who received a higher dose of Kevzara (800 mg). Detailed results will be submitted to a peer-reviewed publication later this year.

The primary analysis group included 194 patients who were critically ill with COVID-19 and receiving mechanical ventilation at the time of enrolment. The primary endpoint assessed the percentage of patients who achieved at least a 1-point change from baseline on a 7-point scale, which consisted of 1) death; 2) hospitalized, requiring invasive mechanical ventilation or extracorporeal membrane oxygenation (ECMO); 3) hospitalized, requiring non-invasive ventilation or high flow oxygen devices; 4) hospitalized, requiring supplemental oxygen; 5) hospitalized, not requiring supplemental oxygen – requiring ongoing medical care (COVID-19 related or otherwise); 6) hospitalized, not requiring supplemental oxygen – no longer requires ongoing medical care; 7) discharged from hospital. A second cohort, which was partially recruited (n=27), compared Kevzara 800 mg versus placebo.

The Kevzara trial was designed after a small (n=21), single-arm study in China (Xu et al) among mostly severe, febrile hospitalized COVID-19 patients found elevated IL-6 levels and suggested that inhibiting this pathway with the IL-6 blocker tocilizumab rapidly reduced fever and improved oxygenation in severe patients, allowing for successful hospital discharge. The Phase 3 Kevzara trial was designed to evaluate this hypothesis in a large, placebo-controlled trial. The trial has been funded in part with federal funds.
from the Department of Health and Human Services; Office of the Assistant Secretary for Preparedness and Response; Biomedical Advanced Research and Development Authority (BARDA), under OT number: HHSO100201700020C.

A separate Sanofi-led trial outside of the U.S. in hospitalized patients with severe and critical COVID-19 using a different dosing regimen is ongoing. The same Independent Data Monitoring Committee (IDMC) is overseeing both the Regeneron-led U.S. trial and the Sanofi-led trial outside of U.S., which has recommended that the trial outside of the U.S. continue. The companies expect to report results in Q3 2020.

1: Endpoints that showed positive trends in patients on mechanical ventilation at baseline, and were countered by negative trends in patients who were not mechanically ventilated at baseline included: the proportion of patients with a 1-point improvement on day 22 (primary endpoint for mechanical ventilation group); the proportion of patients who died by day 29; and proportion of patients who recovered by day 22.

About Kevzara® (sarilumab) Injection
Kevzara is currently approved in multiple countries to treat adults with moderately to severely active rheumatoid arthritis who have not responded to or tolerated previous therapy.

Kevzara binds specifically to the IL-6 receptor and has been shown to inhibit IL-6-mediated signaling. IL-6 is an immune system protein produced in increased quantities in patients with rheumatoid arthritis and has been associated with disease activity, joint destruction and other systemic problems. Kevzara is being investigated for its ability to reduce the overactive inflammatory immune response associated with COVID-19 based on evidence of markedly elevated levels of IL-6 in critically ill patients infected with coronaviruses.

About Regeneron Pharmaceuticals, Inc.
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 or follow @Regeneron on Twitter.
About Sanofi

Sanofi is dedicated to supporting people through their health challenges. We are a global biopharmaceutical company focused on human health. We prevent illness with vaccines, provide innovative treatments to fight pain and ease suffering. We stand by the few who suffer from rare diseases and the millions with long-term chronic conditions.

With more than 100,000 people in 100 countries, Sanofi is transforming scientific innovation into healthcare solutions around the globe.
and/or its collaborators (collectively, “Regeneron’s Products”), and the global economy; the nature, timing, and possible success and therapeutic applications of Regeneron’s Products and product candidates in research and clinical programs now underway or planned, including without limitation Kevzara® (sarilumab) for the treatment of hospitalized patients with severe or critical respiratory illness caused by COVID-19 and REGN-COV2 (Regeneron’s investigational dual antibody cocktail for the prevention and treatment of 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; unforeseen safety issues resulting from the administration of Regeneron’s Products and product candidates (such as Kevzara and REGN-COV2) 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 REGN-COV2; ongoing regulatory obligations and oversight impacting Regeneron’s Products (such as Kevzara), 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 and its Form 10-Q for the quarterly period ended March 31, 2020. 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 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).