

# Lilly, Vir Biotechnology and GSK announce positive topline data from the phase 2 BLAZE-4 trial evaluating bamlanivimab with VIR-7831 in low-risk adults with COVID-19

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For media and investors only

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- In combination, the two monoclonal antibodies demonstrated a 70% relative reduction in persistently high viral load at day 7 compared to placebo.

Eli Lilly and Company, Vir Biotechnology, Inc. and GlaxoSmithKline plc today announced topline data from the expanded Phase 2 BLAZE-4 trial studying low-risk adult patients with mild to moderate COVID-19. Results showed that investigational bamlanivimab (LY-CoV555) 700 mg co-administered with VIR-7831 (also known as GSK4182136) 500 mg demonstrated a 70 percent (p 5.27; cycle threshold value In addition, bamlanivimab administered with VIR-7831 demonstrated a statistically significant reduction compared to placebo in the key virologic secondary endpoints of mean change from baseline to days 3, 5 and 7 in SARS-CoV-2 viral load. There were no events for the secondary endpoint of COVID-19 related hospitalisation or death by day 29 in either study arm. One patient (in the treatment arm) visited the emergency room for COVID-19 related symptoms. No serious adverse events were seen with co-administration of bamlanivimab and VIR-7831.

Bamlanivimab and VIR-7831 bind to different regions of the spike protein of SARS-CoV-2. Preclinical data suggest the administration of

these two investigational antibodies together may provide protection against current variants of SARS-CoV-2 that are resistant to bamlanivimab.

Daniel Skovronsky, M.D., Ph.D., Lilly's Chief Scientific Officer and President of Lilly Research Laboratories said:

The reduction in persistently high viral load is an important virology endpoint that was demonstrated in Lilly's Phase 2 BLAZE-1 trial, and subsequently validated in the Phase 3 trial, to be strongly correlated with the clinical outcome of COVID-19 related hospitalisations and deaths in high-risk patients. These virology data support our belief that bamlanivimab and VIR-7831 together could be a promising option for COVID-19 treatment.

George Scangos, Ph.D., Chief Executive Officer of Vir said:

This virologic evaluation of two antibodies with distinct resistance profiles is an encouraging advance in our fight against the pandemic. VIR-7831 demonstrated positive results in the COMET-ICE trial and recent pre-clinical data suggest that VIR-7831 maintains activity against current circulating variants of concern. Now, with these exciting new data from the BLAZE-4 trial, we believe that VIR-7831 has an important role to play as both monotherapy and in combination with other mAbs. We look forward to continuing conversations with the FDA about VIR-7831 as monotherapy and co-administered with bamlanivimab.

Dr. Hal Barron, Chief Scientific Officer and President R&D, GSK, said:

These early data from the BLAZE-4 trial, coupled with the results of the COMET-ICE trial demonstrating an 85 percent reduction in progression to hospitalisation or death using VIR-7831, support our hypothesis that by targeting a highly conserved epitope, VIR-7831 may help deliver benefits to patients. We're continuing to work with regulators to bring VIR-7831 as a monotherapy and potentially co-administered with other monoclonal antibodies to patients in need.

VIR-7831 is an investigational compound, not approved by the U.S. Food and Drug Administration (FDA) or any other regulatory authority.

An Emergency Use Authorization (EUA) application for VIR-7831 has been submitted to the FDA, based on the results of the COMET-ICE (COVID-19 Monoclonal antibody Efficacy Trial - Intent to Care Early) trial, which stopped enrollment early based on data from an interim analysis demonstrating an 85 percent reduction in hospitalisation or death in patients receiving VIR-7831 as monotherapy compared to placebo, the primary endpoint of the trial. GSK and Vir will continue discussions with the European Medicines Agency (EMA) and other global regulators to make VIR-7831 available to patients with COVID-19 as soon as possible. The three companies anticipate engaging with global regulators, including the FDA, regarding the possible co-administration of bamlanivimab and VIR-7831 for the treatment of COVID-19.

### Important Information about bamlanivimab

Bamlanivimab has not been approved by the FDA for any use. It is not known if bamlanivimab is safe and effective for the treatment of COVID-19.

Bamlanivimab is authorized under an Emergency Use Authorization only for the duration of the declaration that circumstances exist justifying the authorization of the emergency use of bamlanivimab under Section 564(b)(1) of the Act, 21 U.S.C § 360bbb-3(b)(1), unless the authorization is terminated or revoked sooner.

Healthcare providers should review the Fact Sheet for information on the authorized use of bamlanivimab and mandatory requirements of the EUA. Please see the FDA Letter of Authorization, Fact Sheet for Healthcare Providers, and Fact Sheet for Patients, Parents, and Caregivers ( English) ( Spanish).

### Authorized Use and Important Safety Information

Bamlanivimab 700 mg injection is authorized for use under EUA for treatment of mild to moderate COVID-19 in adults and pediatric patients (12 years of age and older weighing at least 40 kg) with positive results of direct SARS-CoV-2 viral testing, and who are at high risk for progressing to severe COVID-19 and/or hospitalization.

### Limitations of Authorized Use

- Bamlanivimab is not authorized for use in patients:

- who are hospitalized due to COVID-19, OR
- who require oxygen therapy due to COVID-19, OR
- who require an increase in baseline oxygen flow rate due to COVID-19 in those on chronic oxygen therapy due to underlying non-COVID-19 related comorbidity.
- Benefit of treatment with bamlanivimab has not been observed in patients hospitalized due to COVID-19. Monoclonal antibodies, such as bamlanivimab, may be associated with worse clinical outcomes when administered to hospitalized patients requiring high flow oxygen or mechanical ventilation with COVID-19.

### Important Safety Information

There are limited clinical data available for bamlanivimab. Serious and unexpected adverse events may occur that have not been previously reported with bamlanivimab use.

### Hypersensitivity Including Anaphylaxis and Infusion-Related Reactions

Serious hypersensitivity reactions, including anaphylaxis, have been observed with administration of bamlanivimab. If signs and symptoms of a clinically significant hypersensitivity reaction or anaphylaxis occur, immediately discontinue administration and initiate appropriate medications and/or supportive care.

Infusion-related reactions have been observed with administration of bamlanivimab. These reactions may be severe or life threatening. Signs and symptoms of infusion-related reactions may include:

- fever, difficulty breathing, reduced oxygen saturation, chills, fatigue, arrhythmia (e.g. atrial fibrillation, sinus tachycardia, bradycardia), chest pain or discomfort, weakness, altered mental status, nausea, headache, bronchospasm, hypotension, hypertension, angioedema, throat irritation, rash including urticaria, pruritus, myalgia, dizziness, and diaphoresis.

If an infusion-related reaction occurs, consider slowing or stopping the infusion and administer appropriate medications and/or supportive care.

## Clinical Worsening After Bamlanivimab Administration

Clinical worsening after administration of bamlanivimab has been reported and may include signs or symptoms of fever, hypoxia or increased respiratory difficulty, arrhythmia (e.g., atrial fibrillation, sinus tachycardia, bradycardia), fatigue, and altered mental status. Some of these events required hospitalization. It is not known if these events were related to bamlanivimab use or were due to progression of COVID-19.

## Limitations of Benefit and Potential Risk in Patients with Severe COVID-19

Benefit of treatment with bamlanivimab has not been observed in patients hospitalized due to COVID-19. Monoclonal antibodies, such as bamlanivimab, may be associated with worse clinical outcomes when administered to hospitalized patients requiring high flow oxygen or mechanical ventilation with COVID-19. See Limitations of Authorized Use.

Adverse events reported in at least 1% of BLAZE-1 clinical trial participants on bamlanivimab 700 mg and placebo were Nausea (3% vs 4%), Diarrhea (1% vs 5%), Dizziness (3% vs 2%), Headache (3% vs 2%), Pruritus (2% vs 1%) and Vomiting (1% vs 3%).

## Use in Specific Populations

There are insufficient data on the use of bamlanivimab during pregnancy. Bamlanivimab should only be used during pregnancy if the potential benefit outweighs the potential risk for the mother and the fetus.

There are no available data on the presence of bamlanivimab in human or animal milk, the effects on the breastfed infant, or the effects on milk production. Breastfeeding individuals with COVID-19 should follow practices according to clinical guidelines to avoid exposing the infant to COVID-19.

BLAZE-4 ( NCT04634409) is a randomized, double-blind, placebo-controlled trial designed to assess the efficacy and safety of bamlanivimab alone, and bamlanivimab with other neutralizing antibodies including VIR-7831 (GSK4182136) versus placebo for the treatment of symptomatic low-risk COVID-19 in the outpatient setting.

Across all treatment arms, the trial will enrol an estimated 1,000 participants in the United States and Puerto Rico.

The primary outcome measure is percentage of participants who have a viral load greater than 5.27 at day 7. Additional endpoints include viral load change from baseline to day 7 in SARS-CoV-2 viral load, percentage of participants who experience COVID-related hospitalization, ER visit or death from baseline through day 29, as well as safety.

COMET-ICE is a multi-centre, double-blind, placebo-controlled Phase 3 trial evaluating VIR-7831 in adults with mild or moderate COVID-19 at high risk of progression to severe disease. The trial was stopped for enrolment on March 10, 2021, based on an interim analysis, which demonstrated an 85% ( $p=0.002$ ) reduction in hospitalisation or death in those receiving VIR-7831 compared to placebo.

Bamlanivimab is a recombinant, neutralizing human IgG1 monoclonal antibody (mAb) directed against the spike protein of SARS-CoV-2. It is designed to block viral attachment and entry into human cells, thus neutralizing the virus, potentially treating COVID-19. Bamlanivimab emerged from the collaboration between Lilly and AbCellera to create antibody therapies for the prevention and treatment of COVID-19. Lilly scientists rapidly developed the antibody in less than three months after it was discovered by AbCellera and the scientists at the National Institute of Allergy and Infectious Diseases (NIAID) Vaccine Research Center. It was identified from a blood sample taken from one of the first U.S. patients who recovered from COVID-19.

Lilly has successfully completed a Phase 1 study of bamlanivimab in hospitalized patients with COVID-19 ( NCT04411628). A Phase 2/3 study in people recently diagnosed with COVID-19 in the ambulatory setting (BLAZE-1, NCT04427501) is ongoing. A Phase 3 study of bamlanivimab for the prevention of COVID-19 in residents and staff at long-term care facilities (BLAZE-2, NCT04497987) is ongoing. In addition, bamlanivimab is being tested in the National Institutes of Health-led ACTIV-2 study in ambulatory COVID-19 patients.

Bamlanivimab is authorised in the U.S. for the treatment of mild to moderate COVID-19 in adults and pediatric patients 12 years and older with a positive COVID-19 test, who are at high risk for progressing to severe COVID-19 and/or hospitalisation. Bamlanivimab should be administered as soon as possible after a positive COVID-19

test and within 10 days of symptom onset.

## About VIR-7831 / GSK4182136

VIR-7831 is an investigational dual-action SARS-CoV-2 monoclonal antibody. Preclinical data suggest it has the potential to both block viral entry into healthy cells and clear infected cells. The antibody binds to an epitope on SARS-CoV-2 that is shared with SARS-CoV-1 (the virus that causes SARS), indicating that the epitope is highly conserved, which may make it more difficult for resistance to develop. VIR-7831, which incorporates Xencor's Xtend™ technology, also has been designed to achieve high concentration in the lungs to ensure optimal penetration into airway tissues affected by SARS-CoV-2 and to have an extended half-life.

## About the Vir and GSK Coronavirus Collaboration

In April 2020, Vir and GSK entered into a collaboration to research and develop solutions for coronaviruses, including SARS-CoV-2, the virus that causes COVID-19. The collaboration uses Vir's proprietary monoclonal antibody platform technology to accelerate existing and identify new anti-viral antibodies that could be used as therapeutic or preventive options to help address the current COVID-19 pandemic and future outbreaks. The companies will leverage GSK's expertise in functional genomics and combine their capabilities in CRISPR screening and artificial intelligence to identify anti-coronavirus compounds that target cellular host genes. They will also apply their combined expertise to research SARS-CoV-2 and other coronavirus vaccines.

## About Lilly's COVID-19 Efforts

Lilly is bringing the full force of its scientific and medical expertise to attack the coronavirus pandemic around the world. Existing Lilly medicines are being studied to understand their potential in treating complications of COVID-19, and the company is collaborating with partner companies to discover novel antibody treatments for COVID-19. Lilly is testing both single antibody therapy as well as combinations of antibodies as potential therapeutics for COVID-19. Visit Lilly's COVID-19 disease area page for resources related to Lilly's COVID-19 efforts.

## GSK Commitment to Tackling COVID-19

GSK's response to COVID-19 has been one of the broadest in the industry, with three potential treatments in addition to our vaccine candidates in development.

GSK is collaborating with several organisations on COVID-19 vaccines by providing access to our adjuvant technology. In addition to our work with Medicago, a collaboration with Sanofi on an adjuvanted, protein-based vaccine candidate is now in Phase 2. An earlier stage collaboration with SK Bioscience is also ongoing. SK Bioscience receives funding from CEPI and the Bill and Melinda Gates Foundation to develop differentiated, affordable COVID-19 vaccines for supply globally through the COVAX facility. The use of an adjuvant can be of particular importance in a pandemic since it may reduce the amount of vaccine protein required per dose, allowing more vaccine doses to be produced and contributing to protecting more people.

GSK is also working with mRNA specialist, CureVac, to jointly develop next generation, multi-valent mRNA vaccines for COVID-19 with the potential to address multiple emerging variants in one vaccine. GSK will also support manufacturing of up to 100m doses of CureVac's first generation COVID-19 vaccine.

GSK is also exploring potential therapeutic or treatment options for COVID-19 patients. We are collaborating with Vir Biotechnology to develop existing and identify new anti-viral antibodies that could be used as therapeutic or preventive options for COVID-19. We recently reported that an Independent Data Monitoring Committee recommended that the Phase 3 COMET-ICE trial evaluating VIR-7831 as monotherapy for the early treatment of COVID-19 in adults at high risk of hospitalization be stopped for enrolment due to evidence of profound efficacy, based on an interim analysis of data from the trial. We are seeking Emergency Use Authorization in the US and authorizations in other countries. We are also assessing whether an investigational monoclonal antibody, otilimab, can help severely ill COVID-19 patients aged over 70 who experience an overreaction of their immune system.

## About Eli Lilly and Company

Lilly is a global health care leader that unites caring with discovery to create medicines that make life better for people around the world. We were founded more than a century ago by a man committed to



creating high-quality medicines that meet real needs, and today we remain true to that mission in all our work. Across the globe, Lilly employees work to discover and bring life-changing medicines to those who need them, improve the understanding and management of disease, and give back to communities through philanthropy and volunteerism. To learn more about Lilly, please visit us at [www.lilly.com](http://www.lilly.com) and [www.lilly.com/news](http://www.lilly.com/news).

Vir Biotechnology is a clinical-stage immunology company focused on combining immunologic insights with cutting-edge technologies to treat and prevent serious infectious diseases. Vir has assembled four technology platforms that are designed to stimulate and enhance the immune system by exploiting critical observations of natural immune processes. Its current development pipeline consists of product candidates targeting COVID-19, hepatitis B virus, influenza A and human immunodeficiency virus. For more information, please visit [www.vir.bio](http://www.vir.bio).

GSK is a science-led global healthcare company with a special purpose: to help people do more, feel better, live longer. For further information please visit [www.gsk.com/about-us](http://www.gsk.com/about-us).

### Lilly Cautionary Statement Regarding Forward-Looking Statements

This press release contains forward-looking statements (as that term is defined in the Private Securities Litigation Reform Act of 1995) about bamlanivimab (LY-CoV555) as a potential treatment for patients with or at risk of infection from COVID-19, alone and in combination with other antibodies, including VIR-7831, Lilly's development plans and collaboration efforts, and reflects Lilly's current beliefs and expectations. However, as with any such undertaking, there are substantial risks and uncertainties in the process of drug research, development and commercialization and in drug collaborations. Among other things, there can be no guarantee that future study results will be consistent with the results to date, that bamlanivimab alone or administered with VIR-7831 or any other therapy will prove to be a safe and effective treatment or preventative for COVID-19, that bamlanivimab alone or administered with VIR-7831 or any other therapy will receive regulatory approvals or additional authorizations, that patients will volunteer to participate in a study of bamlanivimab alone or administered with VIR-7831 any other therapy or achieve positive outcomes or that Lilly and its partners can provide an

adequate supply of bamlanivimab alone or administered with VIR-7831 or any other therapy in all circumstances. For a further discussion of these and other risks and uncertainties that could cause actual results to differ from Lilly's expectations, please see Lilly's most recent Forms 10-K and 10-Q filed with the U.S. Securities and Exchange Commission. Lilly undertakes no duty to update forward-looking statements.

## Vir Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as “may,” “will,” “plan,” “potential,” “aim,” “promising” and similar expressions (as well as other words or expressions referencing future events, conditions or circumstances) are intended to identify forward-looking statements. These forward-looking statements are based on Vir’s expectations and assumptions as of the date of this press release. Forward-looking statements contained in this press release include, but are not limited to, statements regarding the timing of availability of preclinical and clinical data, clinical development program updates, and data disclosures related to VIR-7831, the ability of VIR-7831 to treat and/or prevent COVID-19 (as monotherapy and in combination with bamlanivimab), the potential of VIR-7831 in the hospitalized population, the ability of VIR-7831 to neutralize the SARS-CoV-2 live virus, the ability of VIR-7831 to maintain full activity against variant strains of the virus, Vir’s collaboration with GSK, and statements related to regulatory authorizations and approvals, including plans to continue discussions with the FDA, the EMA and other global regulators. Many factors may cause differences between current expectations and actual results, including challenges in obtaining regulatory approval, unexpected safety or efficacy data observed during preclinical or clinical studies, challenges in the treatment of hospitalized patients, difficulties in collaborating with other companies or government agencies, challenges in accessing manufacturing capacity, successful development and/or commercialization of alternative product candidates by our competitors, changes in expected or existing competition, delays in or disruptions to our business or clinical trials due to the COVID-19 pandemic, geopolitical changes or other external factors, and unexpected litigation or other disputes.

## GSK Cautionary Statement Regarding Forward-Looking Statements

GSK cautions investors that any forward-looking statements or projections made by GSK, including those made in this announcement, are subject to risks and uncertainties that may cause actual results to differ materially from those projected. Such factors include, but are not limited to, those described in the Company's Annual Report on Form 20-F for 2020 and any impacts of the COVID-19 pandemic.

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## GSK

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