

Atrial Fibrillation Study with Abelacimab Stopped Early by the Data Monitoring Committee Due to an Overwhelming Reduction in Bleeding as Compared to a DOAC (Direct Oral Anticoagulant)



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Abelacimab, a Dual-Acting Factor XI / XIa Inhibitor, Demonstrated an Unprecedented Reduction in Bleeding in the Largest and Longest Head-to-Head Study Comparing a Factor XI Inhibitor to a DOAC

Abelacimab is the First and Only Factor XI Inhibitor to Demonstrate a Reduction in Major Bleeding Versus a DOAC

Abelacimab 150 mg Dose Provides Near-Complete Inhibition of Factor XI, Recapitulating the Benign Bleeding Profile of Genetic Factor XI Deficient Patients

Patients in the Rivaroxaban Arm Can Transition to Abelacimab in an Extension Study

CAMBRIDGE, Mass., September 18, 2023 (BUSINESS WIRE)– Anthos Therapeutics, Inc., a clinical stage company developing innovative therapies for cardiovascular diseases, founded by Blackstone Life Sciences, announced today that the AZALEA-TIMI 71 Phase 2 study in 1,287 patients with atrial fibrillation at moderate-to-high risk of stroke, met its primary endpoint. The study has been stopped early by the Data Monitoring Committee due to an overwhelming reduction in the composite of major and clinically relevant non-major bleeding in patients taking abelacimab compared with patients taking rivaroxaban, a leading standard-of-care DOAC. In addition, abelacimab is the first and only Factor XI inhibitor to demonstrate an unprecedented reduction in major bleeding compared to a DOAC, which is the most serious type of bleeding. Full results of AZALEA-TIMI 71 will be presented at an upcoming scientific congress.

“The AZALEA-TIMI 71 study is the largest and longest head-to-head study of a Factor XI inhibitor to provide definitive evidence of a highly significant reduction in bleeding as compared to the standard-of-care anticoagulant. With a median of 21 months of follow-up, spanning more than 2,000 patient-years, AZALEA-TIMI 71 represents a landmark study confirming the promise of Factor XI inhibition as causing substantially less bleeding than a current standard-of-care,” said Marc S. Sabatine, MD, MPH, the Lewis Dexter, MD, Distinguished Chair in Cardiovascular Medicine, Brigham and Women’s Hospital; Professor, Harvard Medical School; and Chairman of the Thrombolysis in Myocardial Infarction (TIMI) Study Group.

Abelacimab is a novel, highly selective, fully human monoclonal antibody with dual inhibitory activity against Factor XI and its active form, Factor XIa. Abelacimab 150 mg maintains ~98% inhibition over the dosing interval, recapitulating the benign bleeding profile of patients with genetic Factor XI deficiency. Prior to AZALEA-TIMI 71, abelacimab achieved a ~80% reduction in venous thromboembolism (VTE) versus a standard-of-care comparator in a gold standard proof-of-concept efficacy study that was published in the [New England Journal of Medicine](#).¹

“Given AZALEA-TIMI 71’s overwhelming reduction in bleeding, together with an 80% reduction in thrombosis demonstrated in our earlier VTE study,¹ abelacimab embodies its promise as a hemostasis-sparing anticoagulant and represents a paradigm shift in the prevention of stroke and other thrombotic conditions,” said Dan Bloomfield, MD, Chief Medical Officer of Anthos Therapeutics. “If approved, more patients with atrial fibrillation could be treated effectively and safely, with a much lower risk of bleeding with abelacimab as compared to a DOAC.”

The Center for Disease Control and Prevention (CDC) estimates that [12.1 million people in the United States will have atrial fibrillation by 2030](#).²

Unfortunately, 40% to 60% of patients with atrial fibrillation are not prescribed anticoagulants today. This underuse of anticoagulants for stroke prevention has been cited as one of the [greatest public health issues facing cardiovascular patients](#).³ In a physician survey, the foremost barrier to patients taking oral anticoagulants was bleed related.⁴

“Abelacimab has the potential to provide a game-changing treatment option for all those patients who live with the daily fear of bleeding while taking current anticoagulants. We can now imagine a future where these patients are able to resume and enjoy activities that they are currently being forced to give up due to concerns associated with bleeding,” said Leslie Lake, President of the National Blood Clot Alliance. “We are thrilled that AZALEA-TIMI 71 has demonstrated such a positive outcome and excited about the promise that it offers to patients.”

Anthos Therapeutics has initiated an extension study to enable patients to transition from rivaroxaban to abelacimab to benefit from the improved bleeding profile. Further, a Fast-Track Designation for abelacimab was previously granted by the U.S. Food and Drug Administration for the prevention of stroke and systemic embolism in patients with atrial fibrillation.

About Abelacimab

Abelacimab is a novel, highly selective, fully human monoclonal antibody that locks Factor XI in the inactive state, resulting in dual inhibitory activity against both Factor XI and its activated form, Factor XIa. By uncoupling thrombosis from hemostasis, a dual-activity Factor XI inhibitor may provide a path forward for those patients who would benefit from the protection that anticoagulants can provide.

In a PK / PD study, abelacimab administered IV provided profound suppression of Factor XI within one hour after the start of therapy and maintained near maximal inhibition for up to 30 days.⁵ In a Phase 2 study published in the New England Journal of Medicine in 2021, a single intravenous dose of abelacimab after knee surgery reduced the rate of venous thromboembolism by 80%, measured 10 days after surgery, compared to enoxaparin.¹ Factor XI inhibition offers the promise of hemostasis-sparing anticoagulation for the prevention and treatment of arterial and venous thromboembolic events.⁶

Abelacimab is an investigational agent and is not approved for any indication in any country.

About the AZALEA-TIMI 71 Phase 2 Study

The AZALEA-TIMI 71 study is an event-driven, randomized, active-controlled, blinded endpoint, parallel-group study with a primary endpoint that evaluates the effect of two blinded doses of abelacimab relative to open-label rivaroxaban in patients with atrial fibrillation (AF) who are at moderate-to-high risk of stroke. The primary endpoint of the AZALEA-TIMI 71 study is the composite of the rate of major or clinically relevant non-major bleeding events. A secondary endpoint is major bleeding on its own. Patients were randomized 1:1:1 and administered subcutaneous (SC) abelacimab 150 mg once-monthly, abelacimab 90 mg once-monthly or rivaroxaban 20 mg daily. This event-driven study completed enrollment in December 2021, with 1,287 patients across 95 global study sites including the U.S. and Canada, Europe and Asia.

About the LILAC-TIMI 76 Phase 3 Study

The LILAC-TIMI 76 study is an event-driven, randomized, placebo-controlled, double-blind, parallel-group study to evaluate the efficacy and safety of abelacimab relative to placebo on the rate of ischemic stroke or systemic embolism in patients with atrial fibrillation (AF) who have been deemed to be unsuitable for currently available anticoagulation therapy. Patients in the study will be randomized to receive abelacimab 150 mg SC or matching placebo once monthly. The study is targeting to enroll approximately 1,900 patients from more than 400 sites in North America, Europe, Latin America, the Middle East and Asia.

About Anthos Therapeutics

Anthos Therapeutics was launched by Blackstone Life Sciences in 2019 and obtained from Novartis Pharma the exclusive global rights to develop, manufacture, and commercialize abelacimab. Anthos Therapeutics is a clinical-stage biopharmaceutical company focused on the development and commercialization of genetically and pharmacologically validated innovative therapies to advance care for high-risk cardiovascular patients. For more information, visit the company's [website](#) and follow on [Twitter](#) and [LinkedIn](#).

Forward-Looking Statements

This press release contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995 that involve substantial risks and uncertainties, including statements regarding the initiation, and timing, of future clinical trials and its research and development. All statements, other than statements of historical facts, contained in this press release, including statements regarding the company’s strategy, future operations, future financial position, prospects, plans and objectives of management, are forward-looking statements. The words “anticipate,” “become,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “will,” “would” and

similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Any forward-looking statements are based on management's current expectations of future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in, or implied by, such forward-looking statements. In addition, the forward-looking statements included in this press release represent the company's views as of the date hereof and should not be relied upon as representing the company's views as of any date subsequent to the date hereof. The company anticipates that subsequent events and developments will cause the company's views to change. However, while the company may elect to update these forward-looking statements at some point in the future, the company specifically disclaims any obligation to do so.

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¹ Verhamme P et al. *New Engl J Med* July 2021 (<https://www.nejm.org/doi/full/10.1056/NEJMoa2105872>)

² Center for Disease Control and Prevention website; Atrial Fibrillation page (https://www.cdc.gov/heartdisease/atrial_fibrillation.htm)

³ Pokorney et al, *American Heart Journal*, April 2019 (<https://www.sciencedirect.com/science/article/abs/pii/S0002870318302989?via%3Dihub>)

⁴ Yao C et al *PEC Innov* 2022;1:100062. (<https://www.sciencedirect.com/science/article/pii/S2772628222000474>)

⁵ Yi BA et al. *J Thromb Haemost. Oct. 2021* (<https://pubmed.ncbi.nlm.nih.gov/34714969/>)

⁶ Hsu et al. *J Am Coll Cardiol. Aug. 2021* (<https://www.sciencedirect.com/science/article/abs/pii/S0735109721053213?via%3Dihub>)