

# Cayuga's CAY001 Significantly Increases Survival and Improves Bleeding Outcomes in Platelet Inhibitor-Related Bleeding

*Data on CAY001, a First-in-Class, Polyphosphate (polyP)-Based Therapy, Show Promise in Bypassing P2Y12 Inhibition to Restore Normal Clotting Function*

NEW YORK, NY, UNITED STATES, March 29, 2025 /EINPresswire.com/ -- [Cayuga](#) Biotech, a

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*Charles Pollack, MD*

company that develops drugs that harness the body's innate ability to stop bleeding, today presented data demonstrating that CAY001, a novel, synthetic, short-chain, polyphosphate (polyP) complexed with silica nanoparticle (SNP), increased survival by 36% ( $p < 0.0001$ ) and improved bleeding time outcomes by 59% ( $p < 0.0001$ ) in injured animals pretreated with a P2Y12 platelet inhibitor. These data were presented today in a poster session at the 2025 American College of Cardiology ([ACC](#)) Annual Meeting in Chicago, IL.

P2Y12 inhibitors are prescribed for more than 4 million

Americans to prevent blood clots, stroke, and heart attacks, but can be associated with life-threatening bleeding, or hemorrhage. The body's compromised ability to clot due to use of these blood thinners is one of the top reasons for preventable death worldwide.

“These early data are promising as they demonstrate CAY001's ability to bypass P2Y12 inhibition to activate platelets via thrombin and restore the normal clotting response,” said Charles Pollack, MD, emergency medicine physician at the University of Mississippi. “Hemorrhage can be challenging to manage because P2Y12 drugs act by inhibiting platelet function, including platelets that may be transfused in case of a bleeding emergency.”

CAY001 data demonstrated that no animal treated with CAY001 died prematurely due to blood loss, compared to untreated control animals. CAY001 normalized blood loss in P2Y12- treated animals to a level similar to animals that did not receive platelet inhibition treatment. All bleeding outcomes measured were significantly improved for CAY001 relative to control.

These data were presented as a poster in the Featured Fields session 05:

Title: A Novel Synthetic Short-chain Polyphosphate (polyP) Complexed with Silica Nanoparticle (SNP) Bypasses Cangrelor-induced P2Y12 Inhibition and Reduces Blood Loss in a Rat Tail Transection Model (Board 45)

#### About Hemorrhage

Nearly 2 million people globally per year die of hemorrhage, the majority of which is preventable. The top causes of preventable death by hemorrhage are non-compressible hemorrhage sites (such as internal bleeding and penetrating injury), delays in hemostatic control, and compromised ability to clot (often due to blood thinners).

#### About CAY001

CAY001 is an investigational, first-in-class, polyP-based therapy. As an injected drug that is inert in healthy tissue, the polyP-SNP complex travels via the bloodstream to any site of bleeding and accelerates the clotting response with low potential for causing clotting in healthy tissue.

PolyP is released by activated platelets after injury and modulates how efficiently and quickly the body can mount the clotting response. Platelet inhibitors are thought to prevent polyP release. CAY001 delivers exogenous polyP to restore normal clotting and bypass P2Y12 inhibition to activate platelets via thrombin. This universal mechanism is applicable to both reversible and irreversible platelet inhibitors, such as the market leader, Plavix (clopidogrel).

#### About Cayuga Biotech, Inc.

Cayuga is developing novel biomimetic therapies leveraging inorganic polyphosphate, a synthetic polymer that modulates the healing response with a mechanism that has to date eluded successful development for other injectable drugs to treat hemorrhage. CAY001, a polyP-SNP complex, is in late-stage preclinical development for the treatment of acute major hemorrhage, a discovery-stage novel composition for the treatment of inherited bleeding disorders, as well as a portfolio of early-stage programs focused across the healing continuum. To learn more, please visit [www.CayugaBiotech.com](http://www.CayugaBiotech.com).

Andrea Ashford-Hicks

Cayuga Biotech

+1 917-208-9108

[email us here](#)

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