Liminatus Pharma Charts Dual-Front Attack on Cancer with IBA101

LA PALMA, CA, UNITED STATES, June 24, 2025 /EINPresswire.com/ -- Next-generation CD47 inhibitor advances toward human trials in U.S. and Korea, with the prospect of safer, more potent immunotherapy

Since its Nasdaq debut earlier this year, Liminatus Pharma has been preparing to redefine the immune-oncology landscape with IBA101, a novel CD47 checkpoint inhibitor engineered to eliminate the anemia and thrombocytopenia that halted earlier candidates. By sparing red blood cells and platelets through targeted epitope selection and Fc engineering, IBA101 enables higher dosing levels—potentially unlocking more robust anti‑tumor responses without compromising patient safety.

Behind the scenes, the company is preparing its IND-enabling package after completing pivotal GLP toxicology and pharmacology studies in non‑human primates at Charles River Laboratories, as well as downstream process development for clinical‑grade production. These data indicated that IBA101 did not induce clinically meaningful reductions in hemoglobin or platelet counts, clearing the path for simultaneous submissions to the U.S. Food and Drug Administration (FDA) and Korea's Ministry of Food and Drug Safety (MFDS) in the second half of 2026. Liminatus anticipates site activations and patient screening to begin in early 2027.

Building on a Dual-Axis Mechanism
IBA101 leverages a two-pronged approach: it blocks CD47—the "don't‑eat‑me" signal—on tumor cells to reactivate macrophage‑mediated clearance, and it remodels the tumor microenvironment by enhancing macrophage turnover and antigen presentation. This innate immune activation primes T cells to exert more potent cytotoxicity. In preclinical combination studies, pairing IBA101 with PD‑1/PD‑L1 inhibitors resulted in significant increases in complete response rates versus monotherapy, bolstering expectations for superior clinical efficacy.

A Strategic Collaboration in Seoul
Liminatus has partnered with Dr. Se-Hoon Lee, a leading lung cancer specialist at Samsung Medical Center in Seoul, South Korea. This partnership secures access to advanced non‑small‑cell lung cancer patients and state‑of‑the‑art translational laboratories. Serial tumor biopsies, immune‑cell phenotyping, and multimodal omics analyses will be integrated into the Phase 1 protocol, which features a 3 + 3 dose‑escalation design followed by expansion cohorts and adaptive combination arms with approved PD‑1/PD‑L1 agents. The trial will focus

on elucidating the specific conditions under which the combination of IBA101 and PD‑1/PD‑L1 blockade delivers superior anti‑tumor efficacy, and Dr. Sehoon Lee is the ideal partner to lead this purpose‑driven research.

Lessons from Early CD47 Efforts

Interest in CD47 blockade has been intense but challenging. Gilead acquired Forty Seven Inc., the primary asset for which was a CD47 blockade [technology][patent] and Pfizer signed a licensing deal for a CD47 blockade [patent], but both programs were paused due to severe anemia and thrombocytopenia caused by off‑target binding to red blood cells and platelets. By contrast, IBA101 selectively binds CD47 epitopes on tumor and immune cells: additional glycosylation on RBC and platelet CD47 proteins prevents IBA101 engagement, minimizing off‑target interactions and reducing the risk of cytopenias. Preclinical primate data suggest this design will translate into a markedly improved safety profile in humans.

Top row: intact RBC pellets with clear supernatant after IBA101 treatment (no hemolysis). Bottom row: diffuse red supernatant in control wells (RBC lysis).

Beyond Cancer: Toward Chronic Inflammation

While oncology is the primary focus, Liminatus is also exploring IBA101's potential in chronic inflammatory diseases. Early mechanistic studies in humanized mouse models are underway to evaluate whether macrophage activation can clear senescent cells and pro‑inflammatory debris—hallmarks of age‑related conditions such as atherosclerosis and neurodegeneration. Although these investigations remain exploratory, they establish a foundation for future indication expansion.

Economic Upside and Market Context

Global PD‑1/PD‑L1 sales exceeded $30 billion in 2024, but looming patent expirations will invite biosimilar competition. Combining CD47 blockade technology with PD‑1/PD‑L1 therapies offers two key advantages: enhanced response rates in combination regimens and a fresh patent lifecycle to extend commercial value. Liminatus projects that a successful IBA101 launch could secure a significant share of the post‑patent market.

Looking Ahead

With a Nasdaq listing, a robust nonclinical data package, and strategic clinical partnerships in Korea and the United States, Liminatus Pharma is poised to enter the clinic in 2027. With safety and synergy at its core, IBA101 aims to fulfill the long‑awaited promise of CD47 blockade and usher in a new era of combination immunotherapy.

About IBA101

IBA101 is a second‑generation CD47 blockade antibody licensed from InnobationBio (Seoul, South Korea). General Forward Looking Statements apply

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