



## **Cerberus Therapeutics Secures \$5 Million Strategic Investment**

*Investment by Bill & Melinda Gates Foundation will support further development of a nanobody-based infectious disease program for flu, Covid and HIV*

*Cerberus is also advancing a separate nanobody-based platform designed to induce immune tolerance and treat autoimmune diseases*

CAMBRIDGE, Mass., December 5, 2023 – [Cerberus Therapeutics, Inc.](#), an early-stage biotechnology company engaged in the development of proprietary nanobody-based platforms to create novel immunotherapeutics, announced today an investment of up to \$5 million from the [Bill & Melinda Gates Foundation](#) (the foundation) to advance Cerberus’ infectious disease program, currently in preclinical development. The funding from the foundation is a strategic investment to test the ability of the Cerberus platform to drive durable, potent and protective immune responses, particularly at sites of pathogen entry, through the direct engagement of immune cells.

“Cerberus’ technology is a new approach to rewiring the immune system. In multiple preclinical studies, our nanobody-based protein formulations induced an immune response that, if corroborated in clinical trials, could lead to treatments of diseases that are currently inadequately addressed or for which treatment options do not exist,” said Novalia Pishesha, Ph.D., Chief Executive Officer and Co-Founder of Cerberus Therapeutics. “The Bill & Melinda Gates Foundation is the world’s preeminent foundation that supports innovation to reduce the global burden of infectious disease, especially in developing countries. We are very excited to receive support from the foundation to advance our research in various infectious disease areas.”

### **About Cerberus Therapeutics**

Founded in 2021 by Novalia Pishesha, Ph.D., Prof. Hidde Ploegh, Ph.D. and Prof. Harvey Lodish, Ph.D., Cerberus Therapeutics’ nanobody-based technology comprises two distinct platforms: one that targets autoimmunity and one aimed at infectious disease. Leveraging the unique biochemical properties and excellent targeting capabilities of alpaca-derived nanobodies (variable domains of heavy chain-only antibodies), Cerberus’ technology has the potential to reset the immune system and have it rewire itself for therapeutic gain.

By relying on nanobodies that target major histocompatibility complex class II antigens (MHC II), Cerberus’ autoimmune platform approach engages all types of professional antigen presenting cells (dendritic cells, macrophages and B cells).<sup>1</sup> Application to preclinical models of multiple sclerosis and rheumatoid arthritis has shown lasting protection and therapeutic efficacy in halting the progression to disease.

Cerberus’ infectious disease approaches are based on nanobodies that recognize antibody light chains.<sup>2</sup> The company’s infectious disease adducts are “armed” with small molecule antivirals or pathogen-

specific nanobodies. These adducts are designed to engage polyclonal antibodies and activate the complement system to mount a protective response to the pathogen recognized.

<sup>1</sup> Pishesha, N., Harmand, T., Smeding, L.Y. *et al.* Induction of antigen-specific tolerance by nanobody–antigen adducts that target class-II major histocompatibility complexes. *Nat Biomed Eng* 5, 1389–1401 (2021). <https://doi.org/10.1038/s41551-021-00738-5>

<sup>2</sup> Xin Liu *et al.* An armed anti-immunoglobulin light chain nanobody protects mice against influenza A and B infections. *Sci. Immunol.* 8, eadg9459(2023). DOI: [10.1126/sciimmunol.adg9459](https://doi.org/10.1126/sciimmunol.adg9459)

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