WhiteLab Genomics and Carbon Biosciences Announce Collaboration to Engineer Novel Genomic Medicines and Create New Disease Area Opportunities

- ***The collaboration** will leverage WhiteLab's AI-Platform, ALFRED, and Carbon's vector engineering platform, PAVE, to create new therapeutic approaches in areas of significant unmet need.*

- ***Carbon's PAVE vectors have demonstrated the ability to package, deliver, and express large genomic payloads with industry-leading tissue specificity. Additionally, Carbon has established proof of concept in cardiac and pulmonary disease models***

- ***This collaboration highlights WhiteLab Genomics' ALFRED platform's capability to engineer a range of delivery systems beyond AAV.***

Boston, MA – June 16, 2025 Carbon Biosciences, a pre-clinical stage biotechnology company developing genomic medicines notably for the treatment of pulmonary and cardiac diseases and WhiteLab Genomics, an AI centric company specializing in the development of genomic medicines, announce a collaboration with the ambition of developing a broad pipeline of novel gene therapy medicines for underserved indications. The collaboration will target a diverse range of organs and disease mechanisms and will leverage WhiteLab Genomics' proprietary platform, ALFRED (AI-Led Framework for Rational Exploration in Drug Design), to engineer selected candidates derived from Carbon's proprietary catalog of parvovirus capsids.

Carbon's PAVE-derived vectors offer expanded genomic payload capacity, industry-leading liver detargeting, and improved immune evasion, broadening their applicability for entire patient populations and addressing some of the most pressing challenges in in vivo gene delivery. Carbon's lead cardiac and pulmonary vectors have undergone

extensive preclinical evaluation in both rodent and non-human primate models, consistently demonstrating a superior safety profile. WhiteLab will use its unique guided rational design approach to optimize Carbon's delivery systems for specific targets. WhiteLab's ALFRED platform will identify and analyze receptors for targeting and design the capsid for optimal delivery to specific cell types while also integrating cross-species simulation, to ensure conservation of capsid-receptor interaction across species for accelerated preclinical and clinical development.

The combination of Carbon's and WhiteLab's platforms has the potential to deliver best-in-class gene therapeutics for all patients and unlock the broader promise of gene therapy for more prevalent and complex human diseases.

WhiteLab Genomics CEO and Co-Founder, David Del Bourgo stated:

"This collaboration is a powerful and exciting opportunity to combine Carbon's advanced PAVE-derived vectors with our AI-guided rational design capabilities. Together, we aim to push the boundaries of what's possible and accelerate the development of next-generation genomic medicines for broader patient populations."

"We are excited to partner with the highly motivated WhiteLab Genomics team to develop new genetic medicines." **said Joel Schneider, PhD, CEO of Carbon Biosciences.** "We believe that the intrinsic properties of our naturally evolved capsid candidates offer an exciting scaffold for the development of highly effective gene therapies. Incorporating AI into our development efforts will help us redefine limits of what is achievable in the genetic medicines space."

About Carbon Biosciences:

Carbon Bioscience exited stealth mode in 2022 with $38M in Series A funding and a lead candidate for the treatment of Cystic Fibrosis (CF), CGT-001. Carbon Biosciences' pipeline now includes multiple pulmonary and cardiac targets which utilize the CBN-1000 and CBN-1100 capsids, respectively. The CBN capsids are non-AAV parvovirus-based vectors developed through the company's vector engine (PAVE) and designed to overcome multiple existing limitations in the gene therapy field, demonstrating exquisite tissue specificity and larger payload capacities. The company has presented positive results in pre-clinical studies in rodents and non-human primates across pulmonary and cardiac disease areas and is preparing to formally enter IND-enabling activities for CGT-001.

Carbon Biosciences, Inc.
Investor and Media Contact

Kassandra Martin
bd@carbonbio.com

About WhiteLab Genomics:

WhiteLab Genomics, a pioneer in the accelerated development of genomic medicines, stands at the intersection of artificial intelligence and biology. Founded in 2019 and supported by Y-Combinator, the company is establishing itself as a key player in genomic medicine innovation. Its proprietary AI technology enables the analysis of complex biological data and the in silico design of optimized therapeutic candidates, thus reducing development time, costs, and associated risks. WhiteLab collaborates with major pharmaceutical companies (such as Sanofi), leading academic institutions, and innovative biotech companies. WhiteLab is a member of the prestigious French Tech 2030 program and recently joined Bayer Co.Lab in Cambridge (USA) as well as the Technology Network of Ginkgo Bioworks.

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Investor and Media Contact: press@whitelabgx.com