# **Arbor Biotechnologies Announces Collaboration with Ginkgo Bioworks to Advance the Discovery and Development of Precision Gene Editors**

* Arbor, a biotechnology company discovering and developing the next generation of genetic medicines, will leverage Ginkgo’s R&D services to further optimize Arbor’s novel precision editors
* Arbor’s portfolio of novel gene editors has significant therapeutic potential because of their unique protospacer adjacent motifs, varied cut types, smaller editing technology, and high specificity
* Ginkgo’s high-throughput Mammalian Foundry enables companies like Arbor to optimize novel gene editors with improved functional characteristics by screening in mammalian cells

CAMBRIDGE, MA and BOSTON, MA – December 12, 2023 - Arbor Biotechnologies, Inc., a biotechnology company discovering and developing the next generation of genetic medicines, today announced a collaboration with Ginkgo Bioworks (NYSE: DNA), which is building the leading platform for cell programming and biosecurity, to leverage Ginkgo's comprehensive Codebase and automated Foundry to jointly optimize Arbor's novel precision editors.

Arbor utilizes its computational metagenomic discovery engine and protein engineering expertise to identify and optimize genetic editors with the potential to treat a broad range of genetic diseases. The company’s portfolio of novel gene editors has significant therapeutic potential due to, among other things, their unique protospacer adjacent motifs (PAMs), which may enable access to nearly all sites in the genome, their varied cut types, which can potentially correct a wider range of diseases, their smaller editing technology, which allows the use of additional delivery technologies, and their high specificity, which can enable improved safety profiles. Ginkgo’s expertise in high throughput exploration of genetic design spaces complements Arbor’s in-house capabilities, and the collaboration is expected to accelerate Arbor’s precision editor optimization campaign through massively parallel library design, automated mammalian cell experimentation and iterative AI-guided protein engineering.

“Patients are at the center of everything we do at Arbor, and we are thrilled to partner with Ginkgo to hasten the advancement of our precision editing technologies into therapeutic applications that have the potential to address diseases with high unmet medical need,” said Devyn Smith, Ph.D., CEO of Arbor. “Ginkgo’s expertise aligns well with our goals, and their technology will synergize with our in-house capabilities, potentially fueling a faster, more efficient expansion of our toolbox of gene editing technologies.”

“As we can see from the [recent landmark regulatory approval](https://www.nature.com/articles/d41586-023-03590-6) of the world’s first CRISPR-based treatment, the gene editing landscape is rapidly advancing, with continuous innovation and optimization of novel technologies that are revolutionizing the way we consider and address disease,” said Jason Kelly, CEO and co-founder of Ginkgo Bioworks. “This collaboration with Arbor is an exciting project for us, as it gives us an opportunity to leverage our platform-driven approach to contribute to the gene editing sector’s fast-moving evolution. We look forward to expanding our capabilities in this field by working with such an innovative pioneer as Arbor to power technologies with the potential for transformative impact.”

**About Arbor Biotechnologies**

Arbor Biotechnologies® is a next-generation gene editing company based in Cambridge, MA. Combining the promise of CRISPR with advanced computational AI-driven discovery, high throughput screening, and robust protein engineering approaches, our co-founders Feng Zhang and David Walt laid the groundwork for our proprietary discovery engine, which has yielded an extensive toolbox of gene editors, far exceeding the number of editors published in the literature to date. We envision a future of gene editing that extends beyond simple knockdowns to include precision writing, precise excisions and large insertions. This affords us the potential to treat a broad spectrum of patients, from those with ultra-rare to the most common genetic diseases. Guided by a deep understanding of the molecular basis of disease and our access to a unique suite of optimized editors, we are rapidly advancing our discovery-stage programs with an initial focus on genomic diseases of the liver and CNS for which there are no existing functional cures. As we advance toward the clinic with our lead program in primary hyperoxaluria type I, we look to expand our strategic partnerships around in vivo gene editing across multiple therapeutic areas and ex vivo cell therapy programs to broaden the reach of our novel nuclease technology. For more information, please visit: [arbor.bio](https://urldefense.com/v3/__https:/arbor.bio/__;!!INViTUAdUeDF!yGAjau0SDuA8njJDFjLHBkDUSKGl7rD4aPgLZUMRU8vAo9HR-oalhaP8LN5viSxjIWld-Zy-t9hb-5OUGQHS$).

**About Ginkgo Bioworks**Ginkgo Bioworks is the leading horizontal platform for cell programming, providing flexible, end-to-end services that solve challenges for organizations across diverse markets, from food and agriculture to pharmaceuticals to industrial and specialty chemicals. Ginkgo's biosecurity and public health unit, Concentric by Ginkgo, is building global infrastructure for biosecurity to empower governments, communities, and public health leaders to prevent, detect and respond to a wide variety of biological threats. For more information, visit [ginkgobioworks.com](http://www.ginkgobioworks.com) and [concentricbyginkgo.com](http://www.concentricbyginkgo.com), read our [blog](https://www.ginkgobioworks.com/blog/), or follow us on social media channels such as X (@[Ginkgo](https://twitter.com/ginkgo) and @[ConcentricByGBW](https://twitter.com/concentricbygbw)), Instagram (@[GinkgoBioworks](https://www.instagram.com/ginkgobioworks/) and @[ConcentricByGinkgo](https://www.instagram.com/concentricbyginkgo/)), Threads (@[GinkgoBioworks](https://www.threads.net/@ginkgobioworks)) or [LinkedIn](https://www.linkedin.com/company/ginkgo-bioworks/).

**Forward-Looking Statements of Ginkgo Bioworks**This press release contains certain forward-looking statements within the meaning of the federal securities laws, including statements regarding the capabilities and potential success of the partnership and Ginkgo's cell programming platform. These forward-looking statements generally are identified by the words "believe," "can," "project," "potential," "expect," "anticipate," "estimate," "intend," "strategy," "future," "opportunity," "plan," "may," "should," "will," "would," "will be," "will continue," "will likely result," and similar expressions. Forward-looking statements are predictions, projections and other statements about future events that are based on current expectations and assumptions and, as a result, are subject to risks and uncertainties. Many factors could cause actual future events to differ materially from the forward-looking statements in this press release, including but not limited to: (i) volatility in the price of Ginkgo's securities due to a variety of factors, including changes in the competitive and highly regulated industries in which Ginkgo operates and plans to operate, variations in performance across competitors, and changes in laws and regulations affecting Ginkgo's business, (ii) the ability to implement business plans, forecasts, and other expectations, and to identify and realize additional business opportunities, (iii) the risk of downturns in demand for products using synthetic biology, (iv) the uncertainty regarding the demand for passive monitoring programs and biosecurity services, (v) changes to the biosecurity industry, including due to advancements in technology, emerging competition and evolution in industry demands, standards and regulations, (vi) our ability to realize the expected benefits of merger and acquisition transactions, (vii) the outcome of any legal proceedings against Ginkgo, including as a result of recent acquisitions, (viii) our ability to realize the expected benefits from and the success of our Foundry platform programs, (ix) our ability to successfully develop engineered cells, bioprocesses, data packages or other deliverables, and (x) the product development or commercialization success of our customers. The foregoing list of factors is not exhaustive. You should carefully consider the foregoing factors and the other risks and uncertainties described in the "Risk Factors" section of Ginkgo's quarterly report on Form 10-Q filed with the U.S. Securities and Exchange Commission (the "SEC") on November 8, 2023 and other documents filed by Ginkgo from time to time with the SEC. These filings identify and address other important risks and uncertainties that could cause actual events and results to differ materially from those contained in the forward-looking statements. Forward-looking statements speak only as of the date they are made. Readers are cautioned not to put undue reliance on forward-looking statements, and Ginkgo assumes no obligation and does not intend to update or revise these forward-looking statements, whether as a result of new information, future events, or otherwise. Ginkgo does not give any assurance that it will achieve its expectations.

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