



Ginkgo Bioworks To Purchase 100 Million Base Pairs Of Synthetic DNA From Twist Bioscience

November 5, 2015

— Unprecedented Partnership Enables Advancement of Synthetic Biology Industry, Accelerating the Design Process for Custom Organisms —

SAN FRANCISCO, Calif. and BOSTON, Mass. — November 4, 2015 — Twist Bioscience, a company focused on synthetic DNA, and Ginkgo Bioworks, an organism design company, today announced an unprecedented agreement for the purchase of synthetic DNA. Twist Bioscience will supply Ginkgo Bioworks with a minimum of 100 million base pairs of synthetic DNA over the course of a one-year period — a quantity equal to ten per cent of the total DNA synthesis market in 2015. Ginkgo Bioworks will use the synthetic DNA — comprised of gene-length *non-coding* sequences — to enable rapid prototyping to meet customer needs in industries from fragrance and flavors to cosmetics, nutrition, and health. The DNA provided by Twist is the raw material for full-capacity production in Ginkgo's foundry, Bioworks1, and will enable the projected expansion of Bioworks2 in 2016.

"More and more companies are reaching out to Ginkgo to develop their biotech strategy for product development and manufacturing. The ability to access this quantity and quality of synthetic DNA at a reasonable cost enables us to meet our customers' needs for custom organisms built at the full scale of our foundry," said Jason Kelly, co-founder and CEO of Ginkgo Bioworks. "After participating in Twist's alpha manufacturing program, we are very excited to receive synthetic DNA on this unprecedented scale, representing a significant and growing share of the global DNA synthesis market."

"This agreement with Ginkgo Bioworks marks a significant milestone for Twist Bioscience and sets the stage for continued growth as we head into our beta launch of our silicon-based DNA synthesis platform in early 2016," said Emily Leproust, Ph.D., CEO of Twist Bioscience. "Biological research and development is a time-intensive, sequence- and gene-specific effort that has been constrained by relatively limited DNA. Our ability to synthesize and supply DNA on an increasingly large scale expands the opportunity to design in biological code across multiple industries, which we believe, coupled with Ginkgo's novel foundry Bioworks1, will drive innovation and experimentation throughout the synthetic biology marketplace."

Under the terms of the agreement, Twist Bioscience will supply Ginkgo Bioworks with synthetic DNA on a super-linear scale. As Twist Bioscience lowers the price of its DNA, Ginkgo Bioworks will purchase significantly increased volumes of synthetic DNA. Ginkgo Bioworks has agreed to purchase a minimum of 100 million base pairs during the one-year agreement.

About Ginkgo Bioworks

Ginkgo Bioworks is an organism design company that is building organisms to specification for customers across markets including food, health and consumer goods. The company's organism engineers work directly with customers including Fortune 500 companies to design microbes for their specific needs. Ginkgo Bioworks is based in Boston and is financially backed by Viking Global, Felicis Ventures, OS Fund and Y Combinator, as well as a number of angel investors and funds. For more information, visit www.ginkgobioworks.com or follow our Twitter feed at <http://twitter.com/Ginkgo>.

About Twist Bioscience

At Twist Bioscience, our expertise is synthetic DNA. We have developed a proprietary semiconductor-based synthetic DNA manufacturing process featuring a 10,000-well silicon platform capable of producing synthetic biology tools, such as oligonucleotides, genes, pathways, chassis and genomes. By synthesizing DNA on silicon instead of on traditional 96-well plastic plates, our platform overcomes the current inefficiencies of synthetic DNA production, and enables cost-effective, rapid, high-quality and high throughput synthetic gene production. The Twist Bioscience platform has the potential to greatly accelerate the development of personalized medicine, sustainable chemical production, improved agriculture production as well as new applications such as *in vivo* diagnostics, biodetection and data storage. For more information, please visit www.twistbioscience.com. Twist Bioscience is on Twitter. Sign up to follow our Twitter feed @TwistBioscience at <https://twitter.com/TwistBioscience>.

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