



# E L E G E N

## **Elegen Launches ENFINIA™ DNA Enhancement for Rapid Synthesis of Highly Complex DNA**

*Following successful, fully subscribed Early Access and Beta Programs, Elegen's latest ENFINIA™ DNA enhancement provides access to very challenging sequences, including long repeats and STRs, GC-rich promoters, enhancers, terminators, ITRs, LTRs and homopolymers.*

*Elegen is the only DNA manufacturer delivering the unique combination of industry-leading complexity, length and NGS-verified accuracy within days, streamlining workflows and providing unparalleled efficiency.*

**San Carlos, Calif. — March 20, 2024 —** Elegen, a leader in cell-free synthetic DNA production, announced today the commercial launch of an enhancement to ENFINIA™ DNA that provides researchers with a reliable supply of very high complexity DNA in as fast as 10 business days. This upgrade to ENFINIA DNA sets a new standard for DNA manufacturing, providing an industry-leading combination of speed, length, NGS-verified accuracy and complexity.

The company had a tremendous response to its Early Access Program (EAP) for high-complexity DNA, announced in late [May 2023](#). EAP partners received long and very complex DNA sequences that were either rejected by other suppliers or would have taken months to synthesize.

Elegen's expanded sequence acceptance criteria now enable the synthesis of long linear dsDNA that includes:

- Inverted terminal repeats (ITRs), including AAV ITRs
- Difficult promoters and enhancers (e.g. R6K, CaMV 35S, SV40, IRES, GAL4-UAS)
- Hairpins up to 100bp
- A/T homopolymers up to 30bp
- G/C homopolymers up to 15bp
- Short tandem repeats (STRs) up to 60bp
- Long repeats up to 150bp, including lentivirus LTRs
- 100bp regions of 12% to 85% GC content
- Greater flexibility on the position of complex regions

Orbital Therapeutics, an early-stage company focused on integrating transformative technologies to drive RNA-based medicine advances, participated in Elegen's EAP. "We tested variations of complex constructs for mRNA synthesis," said Raghav Poudyal, Ph.D., Associate Director of RNA process development at Orbital Therapeutics. "Receiving these molecules in a matter of weeks has helped us save a considerable amount of time during the development of a new mRNA therapeutic." Gilles Besin, Ph.D., Chief Scientific Officer at Orbital, continued, "Elegen's unique expertise in supplying long, accurate, very complex IVT-ready synthetic DNA constructs is very attractive to us. By leveraging Elegen's platform, we see the opportunity to accelerate the development of our novel mRNA therapies. We're excited to continue partnering with them."

Following the successful completion of Early Access and Beta Programs, Elegen has updated its online ordering portal ([elegenbio.com](http://elegenbio.com)) to now accept sequences with very high complexity.

“Providing our customers with very complex DNA that is notoriously difficult to synthesize in a matter of days enables them to explore a broader sequence space much faster,” said Matt Hill, Ph.D., founder and CEO of Elegen. “This upgrade to our offering reflects our commitment to pushing the boundaries of DNA manufacturing innovation and underscores our dedication to provide researchers with the tools they need to accelerate scientific innovations.”

Elegen commercially launched ENFINIA DNA in [Q1 2023](#), delivering NGS-verified, linear DNA up to 7kb in 6 to 8 business days. In October 2023, the company expanded the sequence yield customers could receive from 1µg - 3µg to up to 60µg, an indication of their ability to quickly scale. Earlier this year, they announced a collaboration and licensing [agreement with GSK](#) to enable the use of their cell-free DNA manufacturing technology to develop GSK’s vaccines and genetic medicines. This latest enhancement of ENFINIA DNA to produce high-complexity DNA marks another step in the company’s mission to develop innovative solutions for DNA manufacturing, including even longer DNA, plasmid DNA and clinical-grade DNA production.

## About Elegen

Elegen brings unique insights and technical innovation to create high-quality synthetic DNA faster, catalyzing the next revolution in the life sciences. The company is led by seasoned leaders with decades of experience in developing novel and scalable approaches in molecular biology, chemistry and microfluidics. Elegen uses a proprietary microfluidics approach to build longer, higher-quality DNA on a faster timeline for agricultural, chemical, healthcare and pharma industries. Founded in 2017, Elegen is privately held and based in the San Francisco Bay Area. For more information, visit [elegenbio.com](http://elegenbio.com), find us on [LinkedIn](#) or follow us on Twitter [@ElegenBio](#).

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