

August 2, 2022



# Codexis and Molecular Assemblies Announce Execution of Commercial License and Enzyme Supply Agreement for Optimized TdT Enzyme for Enzymatic DNA Synthesis

REDWOOD CITY, Calif. and SAN DIEGO, Aug. 02, 2022 (GLOBE NEWSWIRE) -- [Codexis, Inc.](#) (NASDAQ: CDXS), a leading enzyme engineering company enabling the promise of synthetic biology, and [Molecular Assemblies, Inc.](#), a pioneer in the field of enzymatic DNA synthesis, today announced the execution of a Commercial License and Enzyme Supply Agreement, enabling Molecular Assemblies to utilize an evolved terminal deoxynucleotidyl transferase (TdT) enzyme in Molecular Assemblies' Fully Enzymatic Synthesis™ (or FES™) technology. The companies collaborated to develop this supercharged TdT enzyme to advance fully enzymatic DNA synthesis for the production of long, pure, accurate oligonucleotides to accelerate innovation in many fields. Molecular Assemblies plans to first make its FES™ technology available via an early access [Key Customer Program](#), opening later this year.

"We believe this transition from collaborative research to commercial supply of this novel TdT enzyme represents a critical inflection point on the path toward Molecular Assemblies' full commercial launch in 2023, and we are thrilled to be a key partner in enabling FES technology," said John Nicols, President and CEO of Codexis. "The commercial license is an exciting advancement for a product with significant value creation potential. The optimized enzyme, deployed in Molecular Assemblies' FES platform, is differentiated over natural enzymes on the ability to synthesize oligonucleotides of high yield and purity – both critical for commercial success. Once launched, we are confident that FES technology will quickly become competitive with the established alternative, and we eagerly anticipate celebrating its successful commercialization with supply of the enzyme."

"The partnership with Codexis has been outstanding. Codexis created a highly enhanced TdT polymerase that surpassed performance expectations in a record amount of time, and this agreement solidifies our commercial position," said Michael J. Kamdar, President and CEO of Molecular Assemblies. "We are excited to provide access to our FES technology via a Key Customer Program, opening up later this year, to generate long, pure, accurate DNA to accelerate innovation in many fields, such as CRISPR and other gene-editing technologies, next generation sequencing, and the assembly of genes for numerous synthetic biology applications. This commercial license and supply agreement puts Molecular Assemblies in a position to achieve our commercialization objectives ahead of schedule."

The financial terms of the agreement include milestone payments from Molecular Assemblies to Codexis and royalties on sales of oligonucleotides synthesized using FES™

technology. Under the terms of the agreement, Molecular Assemblies has exclusively licensed the Codexis evolved TdT enzyme for commercial use in DNA synthesis.

Molecular Assemblies' differentiated FES™ technology produces highly pure, sequence-specific DNA on demand. This two-step proprietary process uses aqueous non-toxic reagents, requires minimal post-synthesis processing, and can scale to longer DNA sequences. FES™ technology was specifically designed by Molecular Assemblies to overcome the limitations of the current decades-old chemical DNA synthesis process, known as the phosphoramidite method. Due to the limitations of current chemistries, genes are routinely assembled using short pieces of DNA. FES™ technology employs a template-independent DNA TdT polymerase, which has the ability to synthesize much longer DNA sequences with fewer errors in an aqueous solution, when compared to naturally occurring TdT, which have many limitations that hinder commercial applications. With longer, purer pieces of synthetic DNA, FES™ technology from Molecular Assemblies is designed to streamline synthetic biology applications and meet significant customer demand for faster turnaround times and reduced error rates. In order to accelerate innovation for the field, Molecular Assemblies and Codexis [partnered in 2020](#) to engineer an enzyme to deliver differentiated and cost-effective solutions for the fully enzymatic synthesis of DNA.

Molecular Assemblies will kick off a [Key Customer Program](#) later this year to provide select researchers priority access to long, custom oligonucleotides synthesized with its FES™ technology. This program is expected to enable researchers to accelerate their research for gene editing, including CRISPR technologies, next generation sequencing (NGS), and gene assembly applications.

### **About Molecular Assemblies**

Molecular Assemblies, Inc. is a private life sciences company developing an enzymatic DNA synthesis technology designed to power the next generation of DNA-based products. The company's patented Fully Enzymatic Synthesis™ (or FES™), based on making DNA the way nature makes DNA, produces long, high quality, sequence-specific DNA reliably, affordably, and sustainably. FES™ technology will enable the reading and writing of DNA for many industries, including industrial synthetic biology and precision medicine, as well as emerging applications of DNA for data information storage, nanomachines, and bio-based electronics. Molecular Assemblies is headquartered in San Diego. For more information, please visit [www.molecularassemblies.com](http://www.molecularassemblies.com).

### **About Codexis**

Codexis is a leading enzyme engineering company leveraging its proprietary CodeEvolver® platform to discover and develop novel, high performance enzymes and novel biotherapeutics. Codexis enzymes have applications in the sustainable manufacturing of pharmaceuticals, food, and industrial products; in the creation of the next generation of life science tools; and as gene therapy and oral enzyme therapies. The Company's unique performance enzymes drive improvements such as: reduced energy usage, waste generation and capital requirements; higher yields; higher fidelity diagnostics; and more efficacious therapeutics. Codexis enzymes enable the promise of synthetic biology to improve the health of people and the planet. For more information, visit [www.codexis.com](http://www.codexis.com).

### **Forward-Looking Statements**

To the extent that statements contained in this press release are not descriptions of historical facts regarding Codexis, they are forward-looking statements reflecting the current beliefs and expectations of management made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, including prospects for Codexis' evolved terminal deoxynucleotidyl transferase (TdT) enzyme for use in Molecular Assemblies' Fully Enzymatic Synthesis™ (or FES™) technology. You should not place undue reliance on these forward-looking statements because they involve known and unknown risks, uncertainties and other factors that are, in some cases, beyond Codexis' control and that could materially affect actual results. Factors that could materially affect actual results include, among others: Codexis' dependence on its licensees and collaborators; Codexis' dependence on a limited number of products and customers; and potential adverse effects to Codexis' business if its products or the products of its customers are not received well in the markets. Additional information about factors that could materially affect actual results can be found in Codexis' Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on February 28, 2022 and in Codexis' Quarterly Report on Form 10-Q filed with the SEC on May 9, 2022, including under the caption "Risk Factors" and in Codexis' other periodic reports filed with the SEC. Codexis expressly disclaims any intent or obligation to update these forward-looking statements, except as required by law.

## **CONTACTS**

### **Codexis**

Investor Relations Contact:  
Argot Partners  
Brendan Strong/Carrie McKim  
(212) 600-1902  
[Codexis@argotpartners.com](mailto:Codexis@argotpartners.com)

### **Molecular Assemblies**

Company:  
Stephen Bates  
VP Sales and Marketing  
[info@molecularassemblies.com](mailto:info@molecularassemblies.com)

Media:  
[Little Dog Communications Inc.](http://LittleDogCommunicationsInc.com)  
Jessica Yingling, Ph.D.  
(858) 344-8091  
[jessica@litldog.com](mailto:jessica@litldog.com)

**CODEXIS®**

Source: Codexis, Inc.