Corporate Presentation

November 2024

CODEXIS®

We engineer **enzymes**

Forward Looking Statements

These slides contain forward-looking statements that involve risks and uncertainties. These statements relate to future events or our future financial or operational performance and involve known and unknown risks, uncertainties and other factors that could cause our actual results or levels of activity, performance or achievement to differ materially from those expressed or implied by these forward-looking statements. In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “could,” “would,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “projects,” “predicts,” “potential” or the negative of these terms, and similar expressions and comparable terminology intended to identify forward-looking statements. In addition, forward-looking statements include all statements that are not historical facts including, but not limited to, our expectations regarding the potential revenues of Codexis’ Pharmaceutical Manufacturing business; potential details and features of the ECO Synthesis™ platform such as it being scalable and able to reduce waste, as well as having higher purity, quality and better unit economics than existing methods, and whether it can obviate the need for massive early stage investment required for phosphoramidite chemistry; the level of future demand for RNAi therapeutics and estimated infrastructure investment required to meet such future demand; the future ECO Synthesis™ market opportunity, including statements regarding its potential annual demand, whether and to what extent Codexis is able to capture market share and Codexis' potential revenue from such market opportunity; potential customer uptake and revenue opportunities of Codexis’ dsRNA ligase program; Codexis’ expectations for the build-out of its planned ECO Synthesis™ Innovation Lab; timing of news updates regarding the ECO Synthesis™ platform and Codexis’ achievement of key milestones; and Codexis’ expectations regarding ability to and timing around reaching profitability, and length of cash runway. These forward-looking statements represent our estimates and assumptions only as of the date hereof, and, except as required by law, Codexis undertakes no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

Actual results could differ materially from Codexis' current expectations for a variety of reasons, including due to the factors set forth in Codexis’ most recently filed periodic report, including under the caption “Risk Factors,” and Codexis’ other current and periodic reports filed with the SEC. If any of these risks or uncertainties materialize, or if Codexis’ underlying assumptions prove to be incorrect, actual results or levels of activity, performance or achievement, or any of the foregoing forward-looking statements, may vary significantly from what Codexis projected.

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Codexis: Catalyzing Innovation Through Engineered Enzymes

Foundational CodeEvolver® Directed Evolution Platform Drives Exquisite Enzyme Engineering Capabilities

Revenue Generating Pharma Manufacturing Business

- Foundational biocatalysis business in small molecule manufacturing
- Cash generating; anticipate mid-teens product revenue CAGR through 2030

RNA Manufacturing Services

- **ECO Synthesis™ manufacturing platform:** enzymatic RNA synthesis to meet future demand for RNAi therapeutics
  - → Double-stranded RNA ligase
  - → Sequential enzymatic synthesis
- **Codex® HiCap RNA Polymerase:** global exclusive license to aldevron®

$90 Million Cash / Cash Equivalents and Investments as of 9/30/24

Path to Profitability By End of 2026; Cash Runway into 2027

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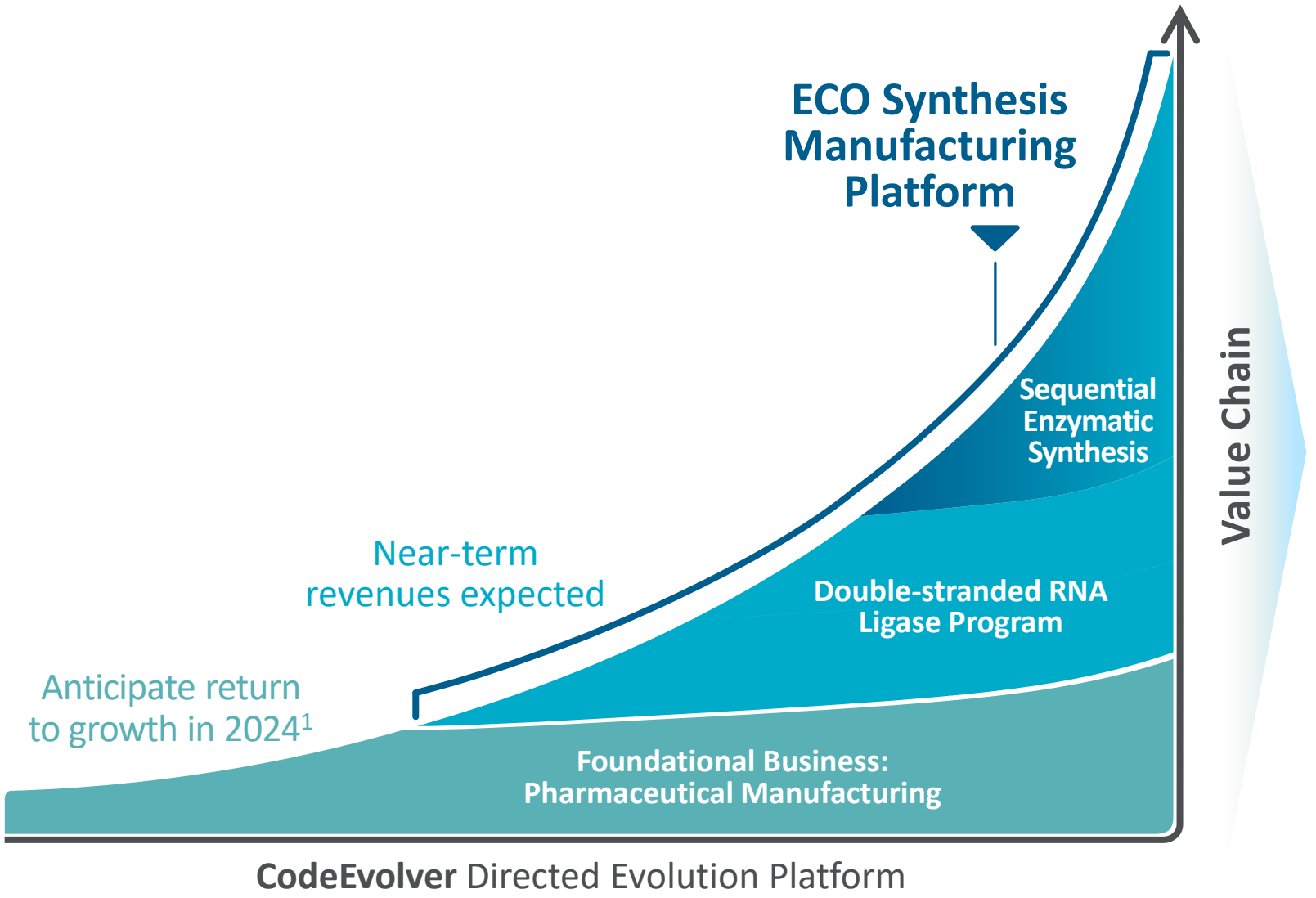
Codexis' Path to Success



Path to positive cash flow by end of 2026

Enabling full-scale production of siRNA

[1] Excludes CDX-616 product revenue (related to PAXLOVID)

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Clear Path to Profitability by End of 2026

Pharmaceutical Manufacturing	• Existing products and customers • Pipeline of higher-margin products expected to drive continued growth
Double-Stranded RNA Ligase	• Expect increasing orders from existing customers
Path to Profitability Supported by:	• $90M in cash and equivalents as of 9/30/24 • Reasonable cash burn

ECO Synthesis Manufacturing Platform Will be Launched Off a Profitable Base Business

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Pharmaceutical Manufacturing

Evolved Enzymes for Biocatalysis
of Small Molecule Manufacturing

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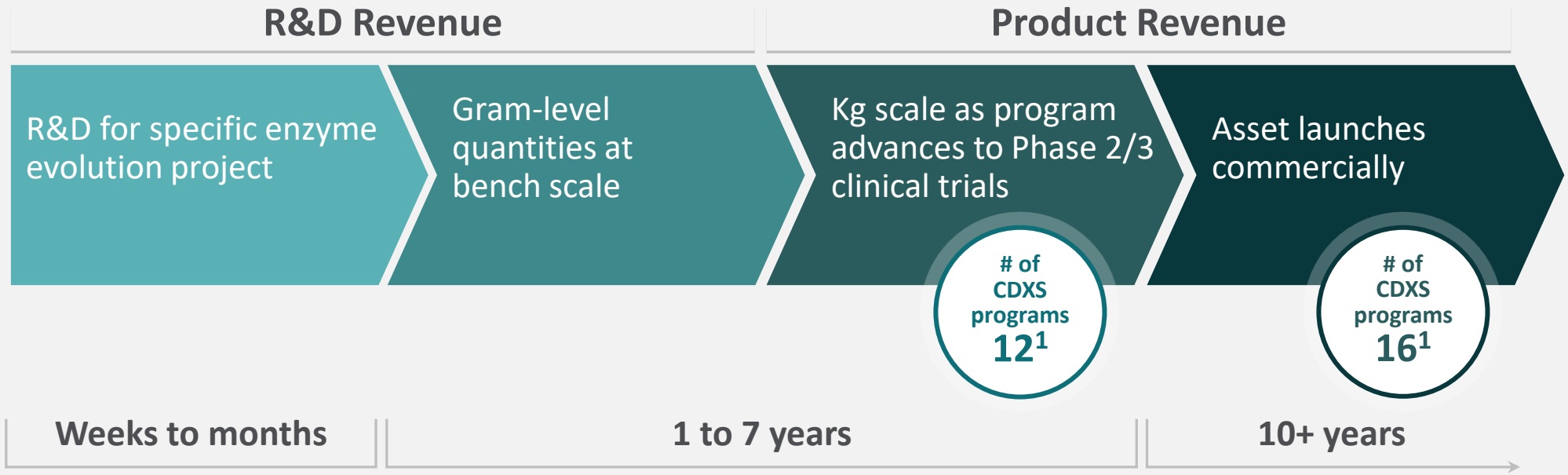
Pharma Manufacturing: Two Paths to Revenue

Customer Engagement

1 **“Off-the-shelf” Enzyme Solutions from Existing Libraries**

2 **Custom Enzyme Evolution**



[1] Number of programs for which Codexis is selling biocatalysts to pharmaceutical manufacturers as of December 31, 2023

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Pharma Manufacturing: Pipeline Drives Revenue Growth

Anticipate Mid-Teens Product Revenue CAGR Through 2030 Based on Existing Commercial Products and Current Pipeline

R&D Revenue

- Existing development-stage programs will fund future product revenue growth
- Sourcing additional pipeline programs to drive sustained revenue growth throughout the decade

Product Revenue

- Return to sustainable growth in 2024
- Anticipate mid-teens CAGR through 2030 based on current commercial products and existing pipeline

Strong Foundational Business Generating Cash

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RNA Manufacturing

Engineering the Next Generation of Enzymes
for Oligonucleotide Manufacturing

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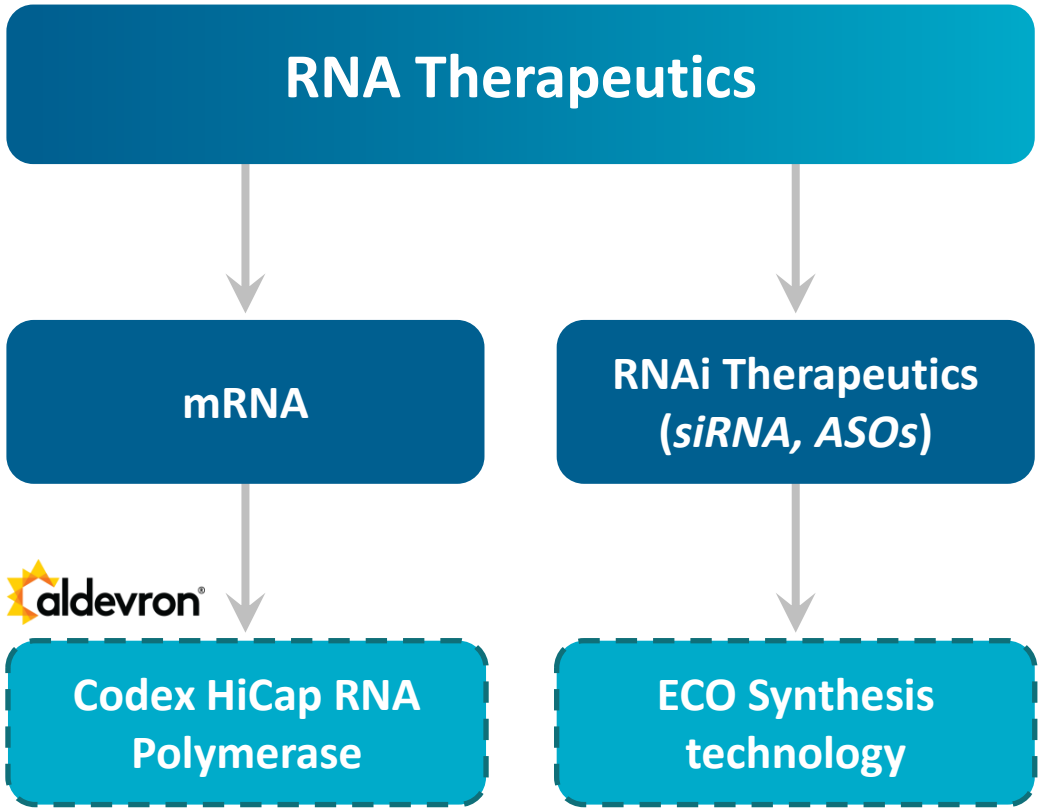
RNAi Therapeutics – a Growing Modality



siRNA: Natural Entry Point for ECO Synthesis Technology

- Short, double-stranded oligonucleotides
- Selective knock-down of disease-related genes via sequence-specific mRNA degradation
- 6 approved therapies since 2018
- Approved for first large indication in 2021 (inclisiran)
- Potential application in additional large disease indications
- Currently manufactured using phosphoramidite chemistry

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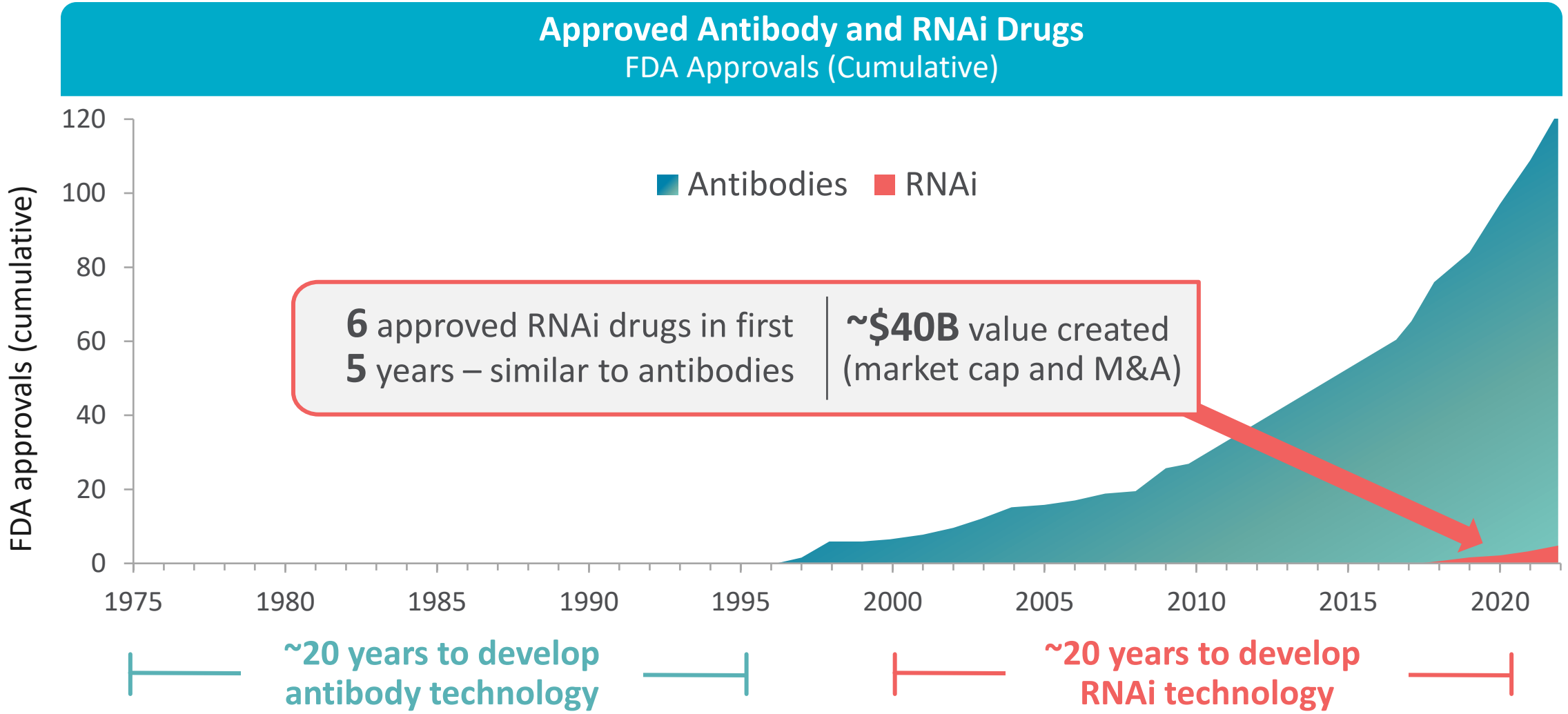
RNAi Therapeutics – the Next Mab Modality?



Source: Codexis December 2023 KOL Event; replay can be accessed on the Codexis Investor Relations website here

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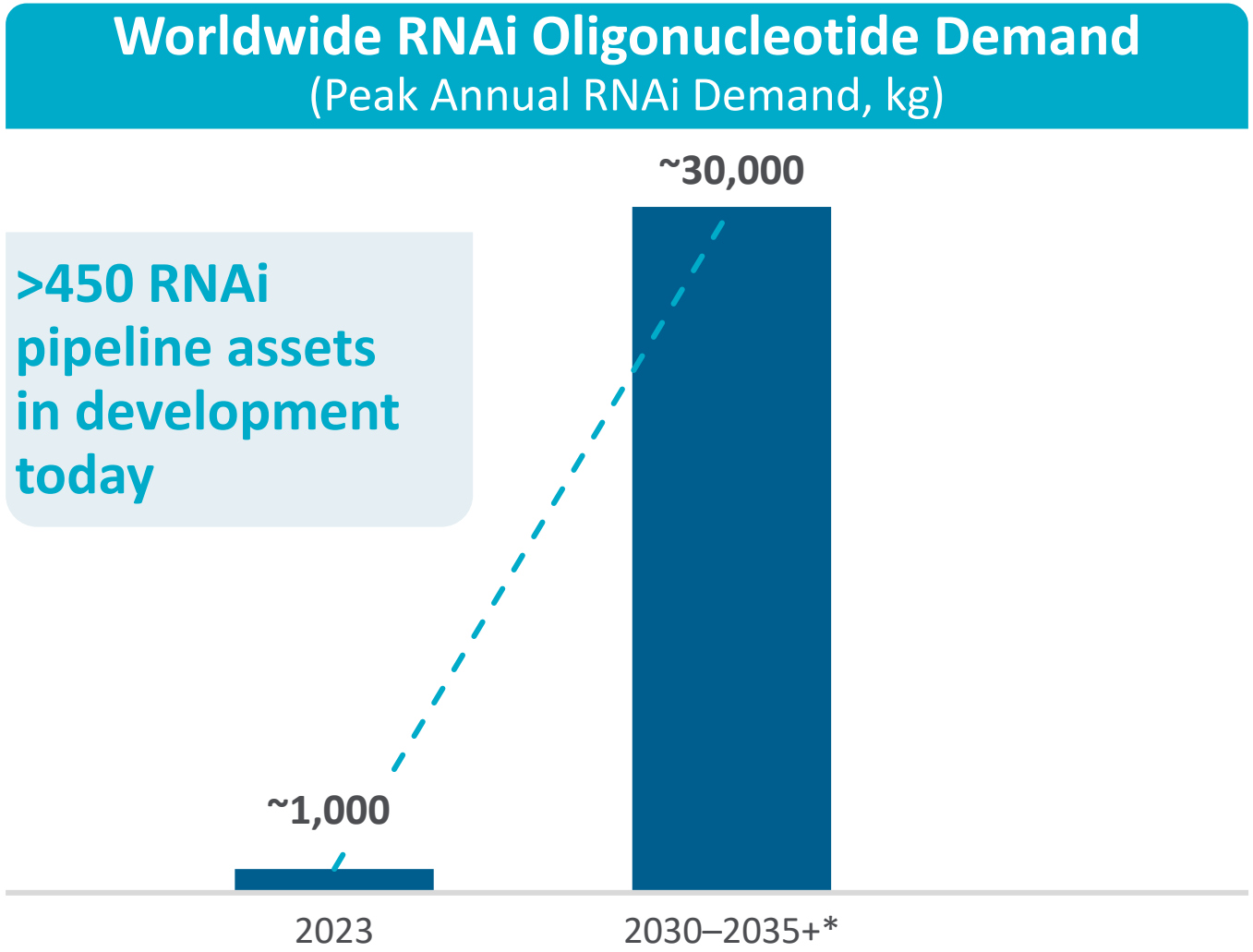
RNAi Therapeutics Demand Growing Rapidly with Increasing Application in Large Patient Indications



Source: Codexis Market Research 2023

* Assumes 35% of assets currently in Phase 2/3 clinical trials are approved by 2030; assumed rate of approval is based on our estimates and data from Wong & Siah Biostatistics (2019)

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Traditional Chemical Synthesis Alone Will Be Challenged to Meet Anticipated Increase in RNAi Therapeutics Demand

Challenges with Phosphoramidite Chemistry

- Currently limited to **single-digit kg batch sizes**
- **Bottlenecks** for development-stage assets
- Requires **large volumes of toxic & flammable solvents**
- Produces **costly, harmful chemical waste**
- **Low purity output**
- **Significant capital investment** for raw materials, purification and waste disposal

Significant CapEx Requirements

- Agilent invested **$725M** in facility expansion[1] to produce up to 1K kg of RNAi oligonucleotides per year
- **$10B to $20B** infrastructure investment required to meet anticipated annual demand of ~30K kg by ~2030

Source: Codexis Market Research 2023

[1] Agilent press release

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Codexis is Positioned to Deliver Enzymatic Solutions for Growing RNAi Therapeutics Demand

Customers are asking us for a **scalable, sustainable enzymatic solution** to complement chemical synthesis

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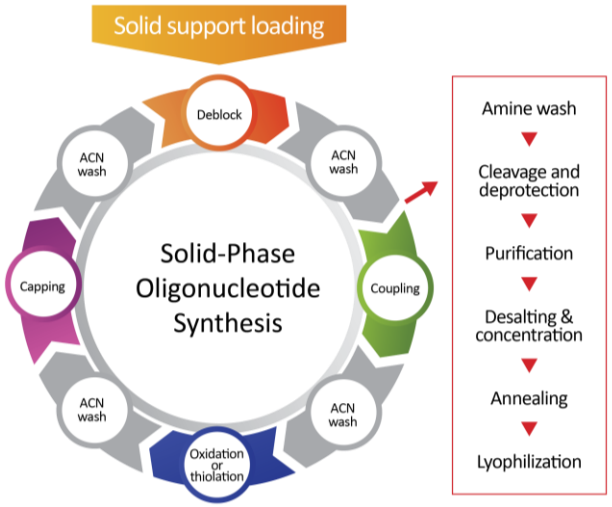
Codexis is positioned to win based on **20-year history of engineering increasingly complex enzymes**

Codexis' technical progress over the last 24 months has demonstrated that **enzymatic tools are here *now*** versus "years away"

Enzymatic Solutions Provide Optionality in siRNA Synthesis

ECO Synthesis Platform

Chemical



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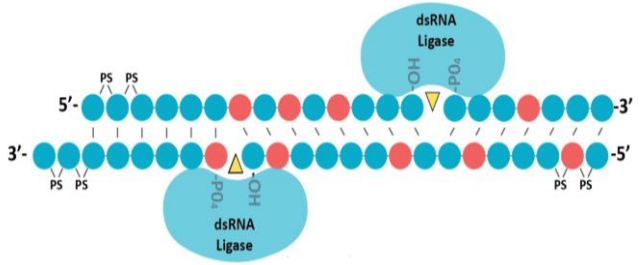
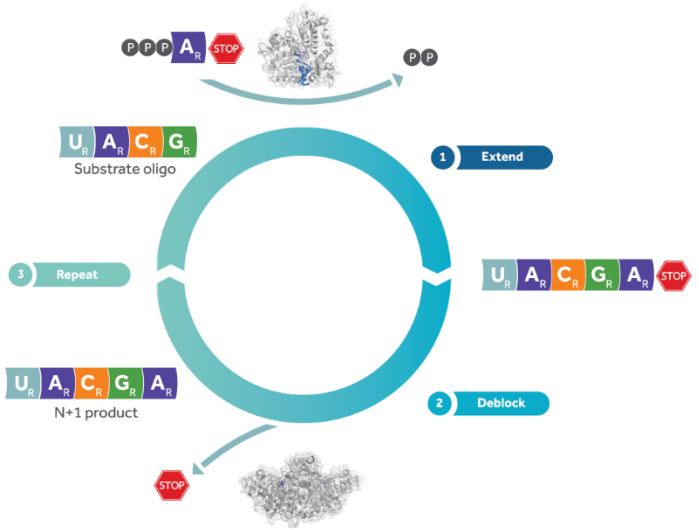


Enzymatic



Traditional siRNA Synthesis Using Phosphoramidite Chemistry

Fragments + Ligation

Sequential Enzymatic Synthesis

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Our Solution: Building a Versatile Tool Kit to Synthesize RNA

ECO: Enzyme-Catalyzed Oligonucleotide Synthesis

ECO Synthesis Manufacturing Platform

Ligation
dsRNA Ligase Program

Core Technology
Sequential Incorporation of Modified Building Blocks

Raw Materials
NQPs & Starter Oligo

Conjugation
Incorporation of Targeting Moieties

The Product

siRNA[1]

Anticipated Revenue Streams

- Customized dsRNA ligases
- siRNA production
  - Process development fees
  - GLP material
  - GMP scale-up partnerships (milestones, royalties, raw materials sales)
  - GMP material from future CDXS facility

[1] Image from Codexis demonstration of gram-scale synthesis in December 2023

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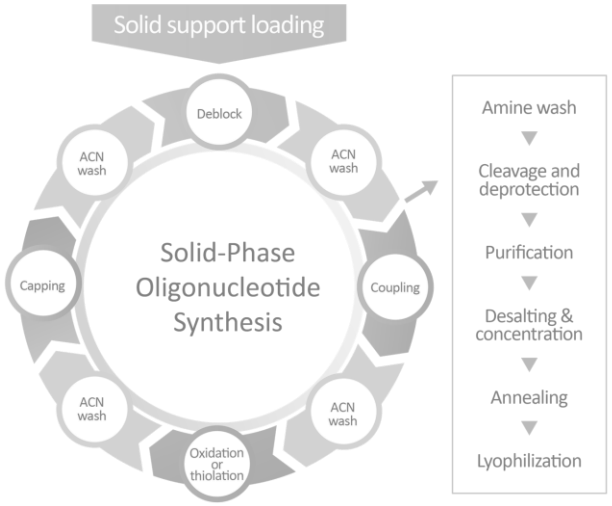
Hybrid dsRNA Ligase Approach: Near Term Revenues

ECO Synthesis Platform

Chemical



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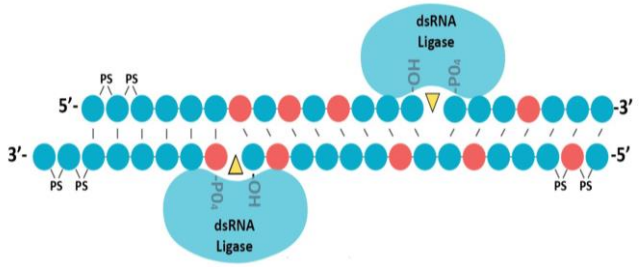

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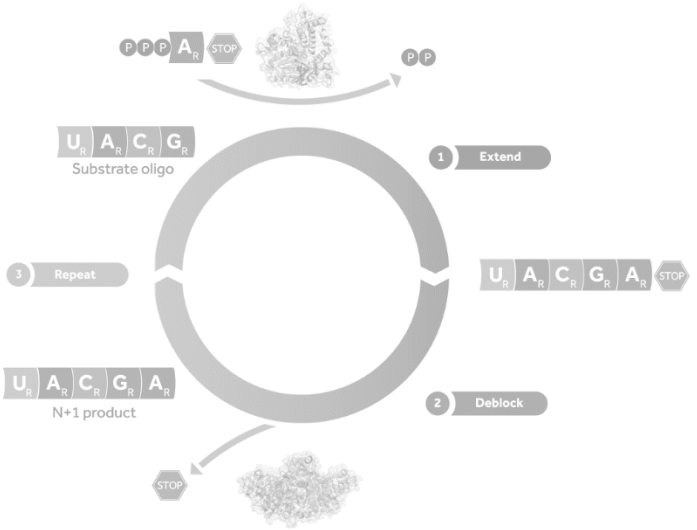

Traditional siRNA Synthesis Using Phosphoramidite Chemistry

Fragments + Ligation

Sequential Enzymatic Synthesis

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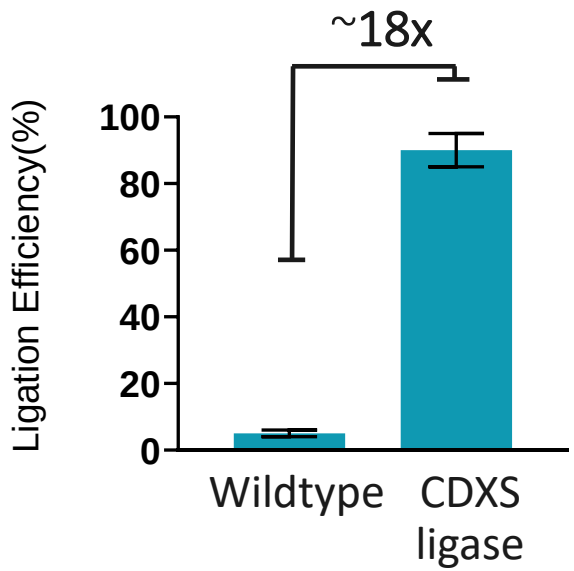
Engineered Ligases Enable Lower Manufacturing Costs

CDXS Variant Drives Valuable Economics through Improved Performance Metrics

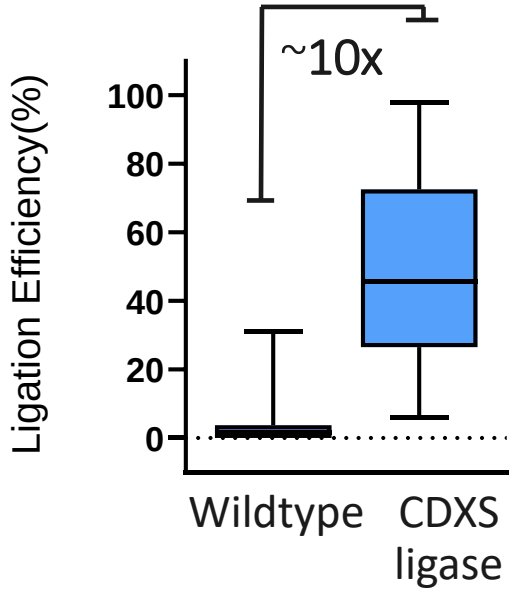
Improved Catalytic Activity



Higher volumetric productivity

Potential cost savings via reduced time and purification needs; potential higher product yields

Superior Performance Across 20+ Oligo Substrates



Versatility

Broad tolerance of modified RNA oligo offers flexibility in design strategies

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dsRNA Ligase: Significant Per Asset Revenue Opportunity

Pharma Manufacturing

~$5M per Asset[1]

- Low price, high volume
- Thousands of dollars/kilogram

dsRNA Ligase Program

$10M+ per Asset[2]

- High price, low volume
- Thousands of dollars/gram

Large Indication siRNA Therapeutic Example[2]

~$1B
Projected peak sales of large indication siRNA asset

~$100M
COGS is ~10%

20%
Potential COGS reduction from ligation

$20M
Pharma company savings

$10M
Codexis potential annual revenue

Goal: Repeatable, sustainable business with meaningful revenues

[1] Represents average projected 2024 revenue across Codexis' three largest Pharmaceutical Manufacturing enzymes
[2] Large pharma company guidance

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dsRNA Ligase Program: Multi-Pronged Commercial Strategy

Variety of Approaches to Meet Customers Where They Are

dsRNA Ligase Screening & Optimization Services

- Leverages deep library of existing ligase variants
- Drives customized dsRNA ligase programs
- Enables scaling of promising assets already in clinical development

Customized dsRNA Ligase Enzyme Supply

- First commercial order from large pharma customer in Q1’24
- Additional partners evaluating CDXS dsRNA ligase

In-House Ligation Capabilities

- Produce small quantities of GLP-grade RNA constructs
- First step toward becoming full-scale provider of RNA manufacturing services

Offerings Designed to Encourage Rapid, Seamless Customer Uptake

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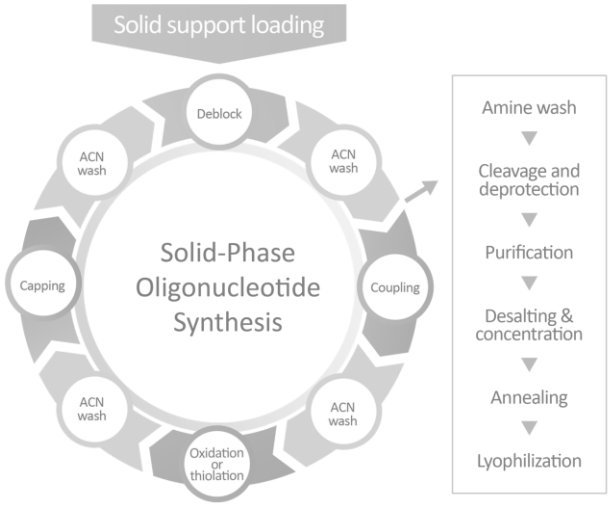
ECO Synthesis Manufacturing Platform: the Sequential Enzymatic Solution

ECO Synthesis Platform

Chemical



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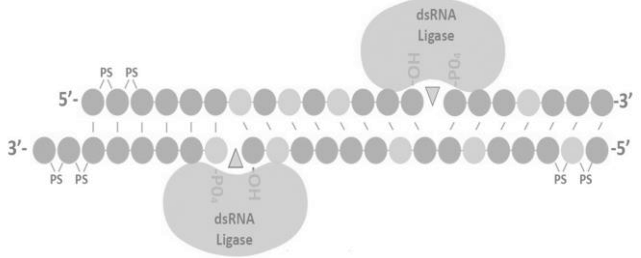

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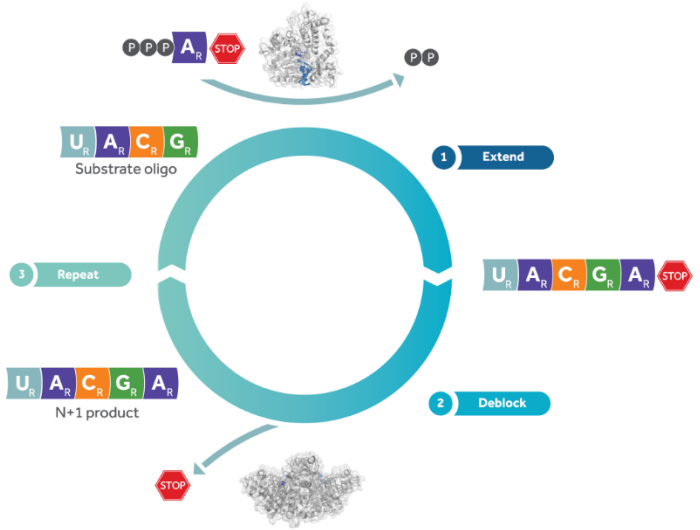

Traditional siRNA Synthesis Using Phosphoramidite Chemistry

Fragments + Ligation

Sequential Enzymatic Synthesis

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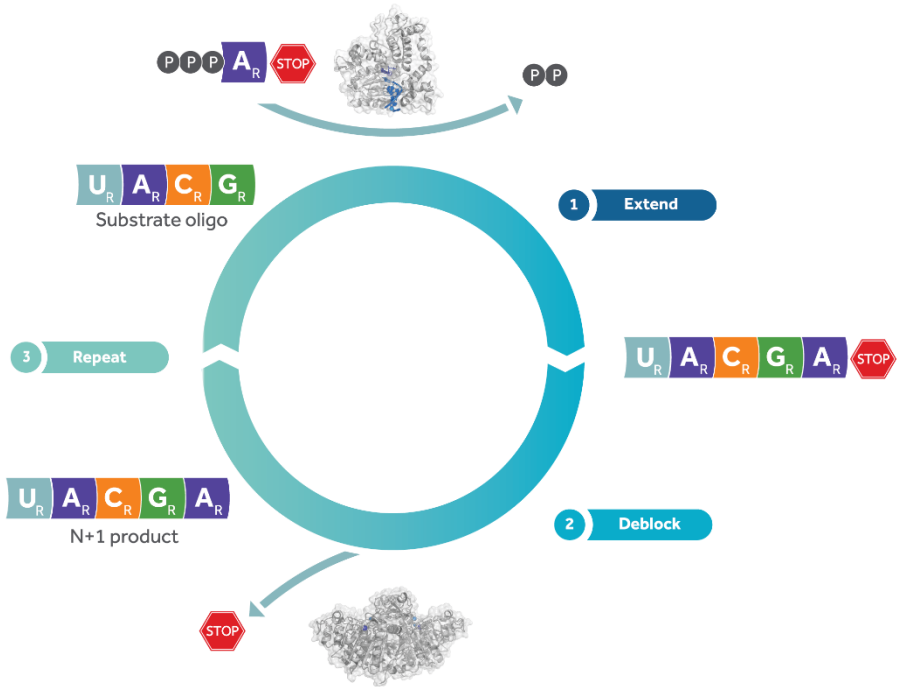
Technical Overview: Sequential Enzymatic Synthesis

ECO Synthesis Manufacturing Platform in Development



Core Technology

Sequential addition of modified RNA nucleotides

Raw Materials

Enzymatically generated NQPs (building blocks) & starter oligos

Conjugation

Enzymatic attachment of targeting moieties

Leading the Way for a Full Platform of Sequential Enzymatic Synthesis

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ECO Synthesis Platform: Demonstrating a Reliable Source of siRNA

ECO Synthesis Innovation Lab

Offers Customers Path to GLP-Grade Material

- Enables in-house manufacture of GLP-grade material for customers' preclinical studies
- Provides venue to demonstrate process scalability for larger production in clinical trials

Supports GMP Scale Up

- Allows for tech transfer to GMP scale-up partners for clinical trial and commercial manufacturing

Kilogram-Scale GMP Facility

Provides siRNA for Early-Stage Clinical Trials

- Enable customers to conduct preclinical and early clinical-stage studies with Codexis
- Accelerate adoption of ECO Synthesis platform
- Allow for increased Codexis revenue capture over manufacturing life of a product

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Chemical Synthesis vs. ECO Synthesis Manufacturing Platform

Phosphoramidite Chemistry

Limited Scalability

- Delivers limited batch sizes (~5kg of RNA/batch)
- Capacity will be challenged to support future RNA demand

Toxic Solvent Use

- Requires large volumes of toxic solvent (acetonitrile) with high disposal costs
- Likely future supply chain limitations & price volatility

Low Purity

- Inefficient for longer RNAs
- Significant impurities from complex protection / deprotections

High Cost

- High-cost infrastructure investment
- High purification costs
- Expensive waste disposal

ECO Synthesis Manufacturing Platform

Scalable

- High scalability designed to lower costs and lead times
- Flow process with immobilized enzymes enables volumetric reagent efficiency, delivering 10s to 100s of kg of RNA/batch

Reduced Waste

- Aqueous reactions significantly decrease chemical waste streams
- Path to enzymatically created monomers

Improved Quality

- Higher purity should streamline downstream purification needs and improve quality of final product

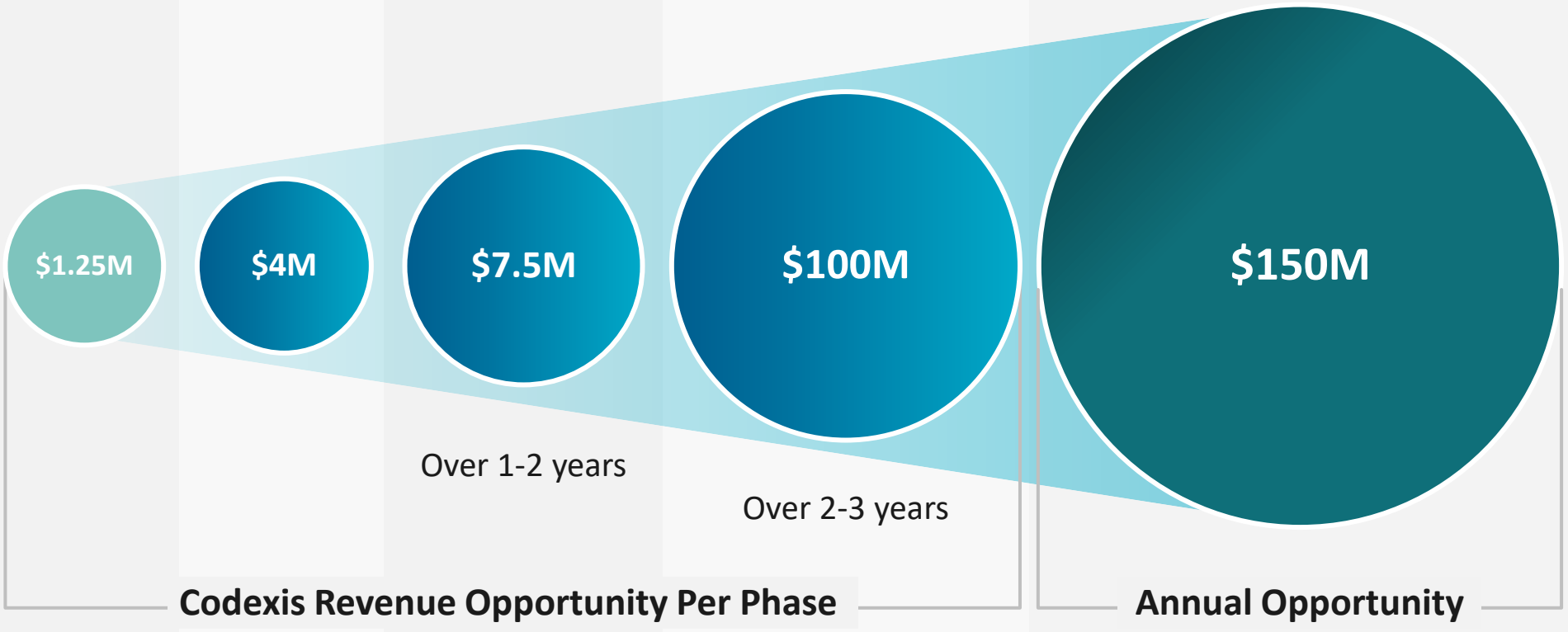
Valuable Economics

- Increased scale, efficiency & product quality
- Saves $Ms in purification and waste disposal costs
- Integrates with existing small molecule manufacturing facilities

Source: Codexis Market Research 2023; design features of ECO Synthesis manufacturing platform

ECO Synthesis Manufacturing Platform Revenue Potential of a Single siRNA Therapeutic Asset by Stage

	Preclinical	Phase I	Phase II	Phase III & Launch	Peak Commercial
Avg. Qty. per Asset (kg)[1]	0.25 kg	1.0 kg	2.5 kg	50 kg	150 kg
Illustrative Price/kg[1]	$5M	$4M	$3M	$2M	$1M
Total Revenue/Asset	$1.25M	$4M	$7.5M	$100M	$150M



[1] Independent market research and feedback from potential customers; prices inclusive of CMC development-related services

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KOL Perspectives on Enzymatic Synthesis of RNAi Therapeutics

December 2023 Codexis KOL event included industry leader perspectives on the potential role of an enzymatic route of synthesis in commercial-scale siRNA production

"I have long felt that **an enzymatic route of synthesis is a critical innovation** to reduce required infrastructure investments, mitigate high volumes of hazardous waste and ensure that drug developers can effectively address the coming demand of these medicines for patients.

– John Maraganore, PhD
Founder and Former Chief Executive Officer,
Alnylam Pharmaceuticals
Member of Codexis Strategic Advisory Board

"Traditional chemical synthesis remains limited by scale per batch, expensive equipment, significant purification and waste disposal costs and a negative environmental impact. **A fully enzymatic approach has the potential to improve efficiencies across each of these areas.**

– David Butler, PhD
Chief Technology Officer,
Hongene Biotech Corporation

December 2023 KOL Event replay can be accessed on the Codexis Investor Relations website here

Built to Win Based on Decades of Expertise in Biocatalysis

ECO Synthesis Manufacturing Platform – (R)evolution in Progress

1. **CodeEvolver** – Leading protein engineering **technology**
2. 50+ commercialized engineered **enzyme products**
3. Enzymatic (DNA) **oligonucleotide synthesis**
   (engineered enzyme w/ >99.9% coupling efficiency)
4. **RNA Synthesis**
   (ECO Synthesis manufacturing platform)

Corporate Highlights

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Anticipated News Flow for ECO Synthesis Manufacturing Platform

2024	2025
Demonstrate full-length, named siRNA compounds synthesized enzymatically	Achieve pilot scale production with ECO Synthesis Innovation Lab for GLP material
Launch double-stranded RNA ligase Screening and Optimization Services	TIDES USA
TIDES Europe: technical collaborations with potential partners and customers	TIDES Europe
ECO Synthesis Innovation Lab build-out complete	Sign and announce a GMP scale-up partnership

Path to Profitability by End of 2026

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Thank You

Nasdaq: **CDXS**
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