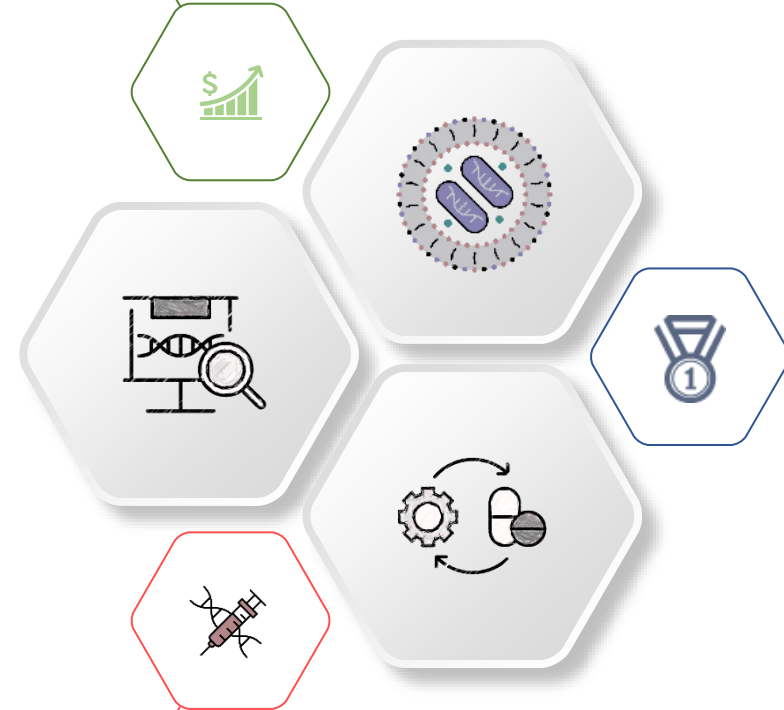


IR Book | Aug. 2025

# Dong-A Socio Group

ST Pharm



# Cautionary Statement regarding Forward-looking Statement

This presentation contains forward-looking statements from Dong-A Socio Group ("the Group") that include, but are not limited to, statements regarding our future financial performance, business strategies, market opportunities, product development, and operational plans. Words such as "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "project," "will," and similar expressions are intended to identify such forward-looking statements.

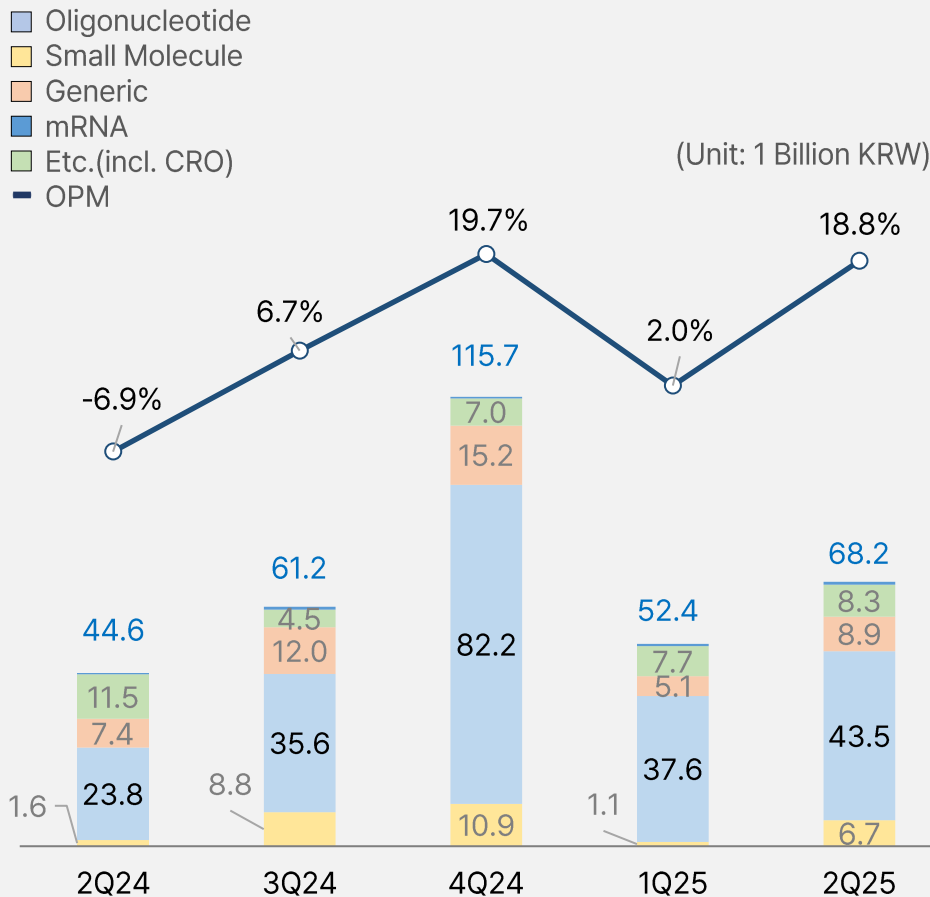
These forward-looking statements are based on our current expectations and beliefs concerning future developments and their potential effects on the Group. Such forward-looking statements are inherently subject to risks, uncertainties, and assumptions that could cause actual results to differ materially from those expressed in these forward-looking statements.

We caution investors not to place undue reliance on any forward-looking statements. These statements speak only as of the date they are made, and we undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise, except as required by law. Additionally, please note that the financial figures and metrics presented in these Investor Relations materials are preliminary and have not yet been audited by an independent auditor. These numbers may be subject to change in future finalized disclosures.



### Consolidated Financial Results

#### Quarterly Performance Trend



### Financial Statement

**2Q Revenue ₩68.2B, Operating Profit ₩12.8B, Net Profit ₩4.7B**

- 1) Revenue growth driven by major commercial projects from CDMO business  
Operating profit boosted from high-margin products & large sales volume
- 2) Reiterate annual revenue guidance of ₩320bn. Minor losses expected from CRO

(Unit: 1 Billion KRW)

Category	'25.2Q	'24.2Q	2024	YoY
<b>Revenue</b>	<b>68.2</b>	<b>44.6</b>	<b>273.8</b>	<b>52.8%</b>
Cost of Goods Sold	37.0	29.3	177.6	26.3%
Gross Profit	31.1	15.3	96.2	103.7%
SG&A Expenses	18.3	18.3	68.5	-0.2%
R&D Expenses	6.1	6.1	22.1	0.2%
<b>Operating Profit</b>	<b>12.8</b>	<b>-3.1</b>	<b>27.7</b>	-
<b>Net Profit</b>	<b>4.7</b>	<b>0.9</b>	<b>32.5</b>	<b>420.7%</b>
Gross Profit Margin	45.7%	34.3%	35.1%	11.4%p
Operating Profit Margin	18.8%	-	10.1%	-
Net Profit Margin	6.9%	2.0%	11.9%	4.9%p

### Business Segment Breakdown

(Unit: 1 Billion KRW)

Sector	'24.2Q	'24.3Q	'24.4Q	'25.1Q	'25.2Q	YoY
<b>Subtotal</b> (% of Revenue)	<b>23.8</b> (53.3%)	<b>35.6</b> (58.1%)	<b>81.3</b> (69.7%)	<b>37.6</b> (71.7%)	<b>43.5</b> (63.8%)	<b>83.0%</b>
<b>Oligo. CDMO</b>						
Commercial	13.1	29.6	62.9	32.4	37.2	184.1%
Clinical	10.7	5.9	18.5	5.1	6.3	-41.1%
Small Molecule API (SMA)	1.6	8.8	10.9	1.1	6.7	312.2%
mRNA	0.3	0.8	0.4	0.6	0.7	177.0%
Generic API (GA)	7.4	12.0	15.2	5.3	8.9	19.7%
Others	0.5	0.0	0.4	0.0	0.0	-97.9%
<b>Separate Revenue</b>	<b>33.6</b>	<b>57.2</b>	<b>109.1</b>	<b>44.7</b>	<b>59.8</b>	<b>77.8%</b>
Subsidiaries (CRO)	11.0	4.5	6.6	7.7	8.3	-23.8%
<b>Consolidated Revenue</b>	<b>44.6</b>	<b>61.2</b>	<b>115.7</b>	<b>52.4</b>	<b>68.2</b>	<b>52.8%</b>

### Comments

#### Oligo API business sales increased 83.0% YoY

- Oligonucleotide API  
Oligo Backlog Value ≈ \$235M  
Stable sales generated from commercial projects  
Majority of clinical project sales focused in 4Q
- Earlier-than-planned operations for 2<sup>nd</sup> Oligo Plant  
Small-scale clinical trial batches production in 3Q  
GMP, commercial projects produced from 4Q onward
- Overseas Subsidiaries  
KRW 0.2 bn losses from CRO and other subsidiaries  
P/L of CROs near BEP level in 2Q, resulting from cost-cutting measures
- Anticipated Events in 2025  
[Oligo] HAE project (Client, Approval),  
FCS/sHTG project (Client, P3 results),  
2<sup>nd</sup> Oligo Plant Operation  
[SM] Mitochondrial deficiency project (Client, Approval)  
[Pipeline] Pirmitegravir P2 interim results



PART 01

# Introduction



### Summary

(By end of 2024)

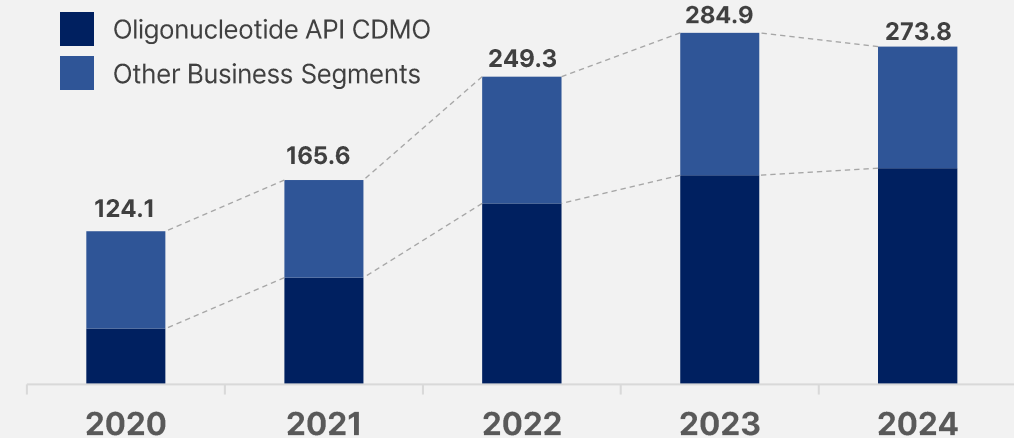
Establishment	1983
Equity	503 Billion KRW
Employees	664
Revenue	274 Billion KRW (Overseas 79%, Domestic 18%)
Shareholders	Affiliated / Affiliated Persons hold 38.7%

### API CDMO specializing in xRNA Therapies

- Major global player in Oligonucleotide API CDMO
- CDMO service ranging from Small Molecule to xRNA
- Solid records in both CDO and CMO areas

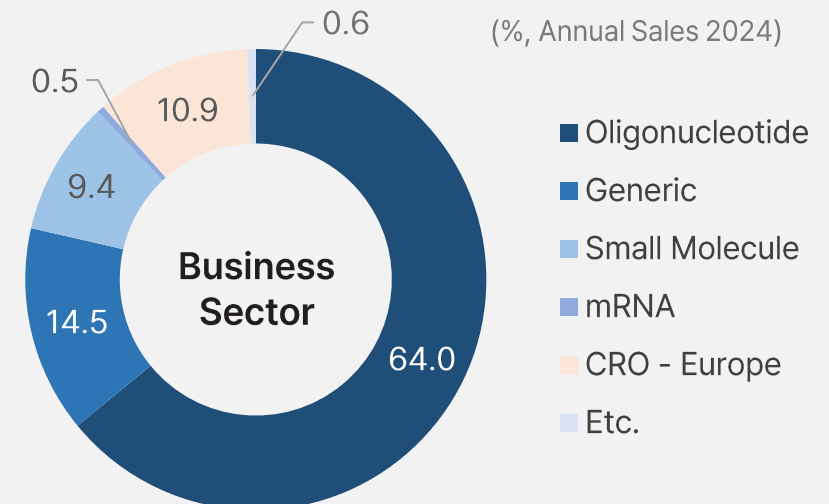
### Consolidated Annual Revenue

(Unit: 1 Billion KRW)



### Revenue Breakdown

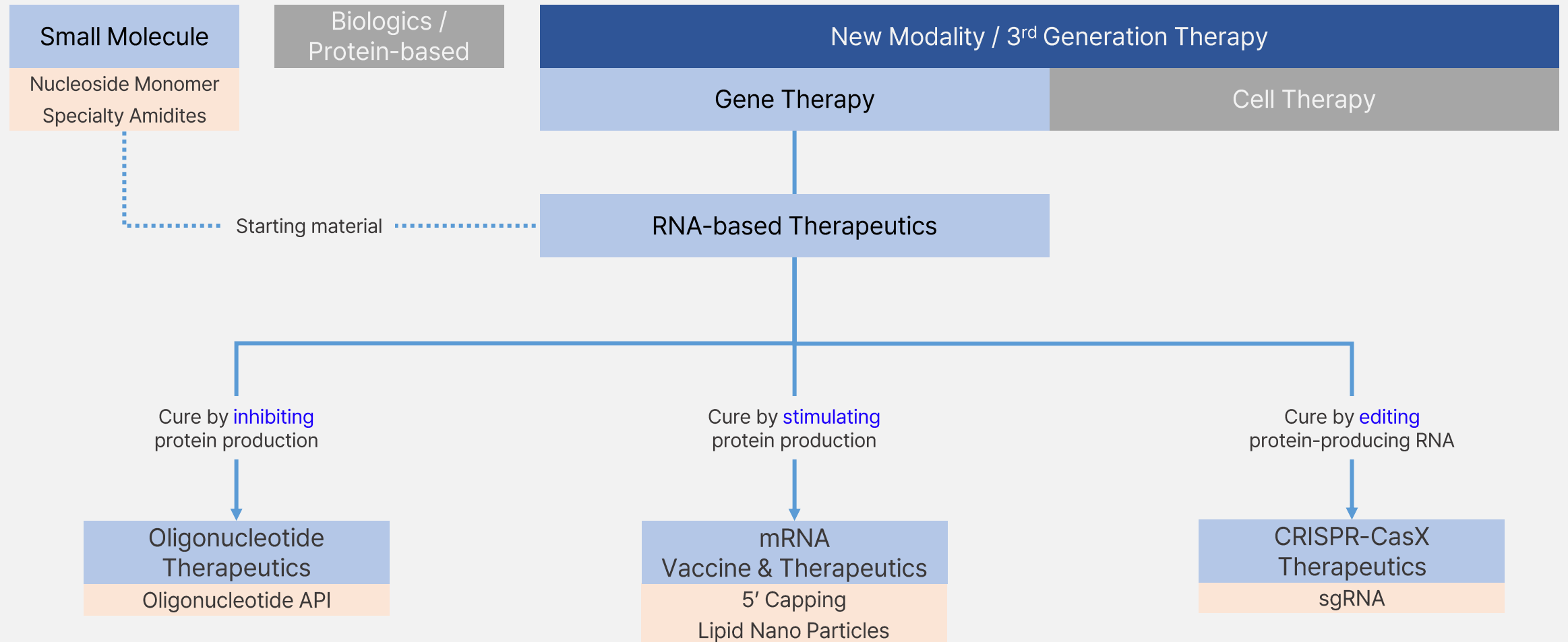
(%, Annual Sales 2024)





### Therapeutics Landscape by Modality

■ Business Areas ■ STP Manufacturable Substance

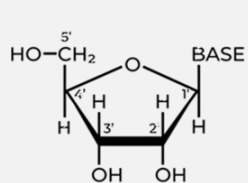


# Overview

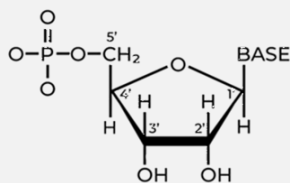


## History & CDMO Records

### Nucleosides API



Nucleoside



Nucleotide

CDMO specializing in small-molecule nucleoside APIs for anti-viral medications

#### API Supplier of

**GSK** Thymidine

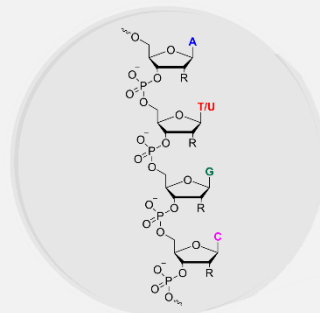
**GSK** Zidovudine

**Novartis** Telbivudine

**Gilead** Sofosbuvir

Integrated value chain from nucleosides to phosphoramidites

### Oligonucleotide API



Oligonucleotide  
(Single-strand)

#### 2018

- First commercial-scale Oligo Plant

#### 2022

- NAI grade from US FDA PAI Inspection

#### 2023

- US FDA Inspection for Banwol Site
- 2nd commercial-scale plant (under construction)

#### 2024

- 3<sup>rd</sup> Commercialized Oligo CDMO received US FDA Approval

### xRNA CDMO Platform



#### 2023

- Commercial-scale mRNA production facility

#### 2024

- Application of STLNP® Patent(PCT)
- Supply Agreement with Quantoom Bio.
- Completion of in-house developed 5'-Capping (SmartCap®)

#### 2025

- mRNA Partnership with Evonik AG (SmartCap®)

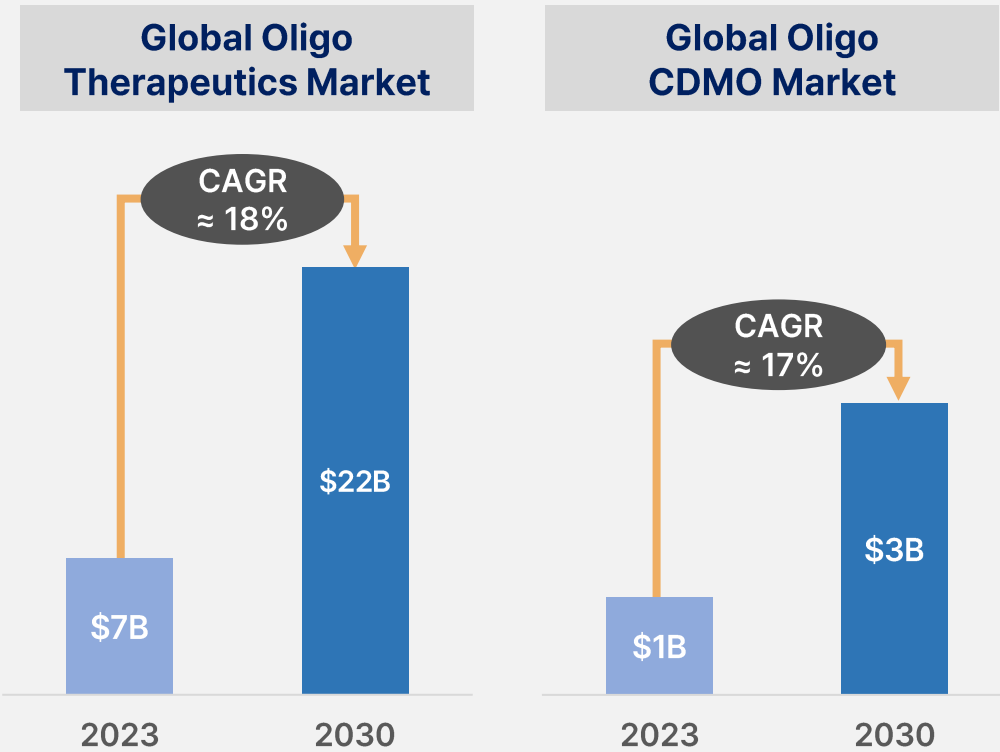




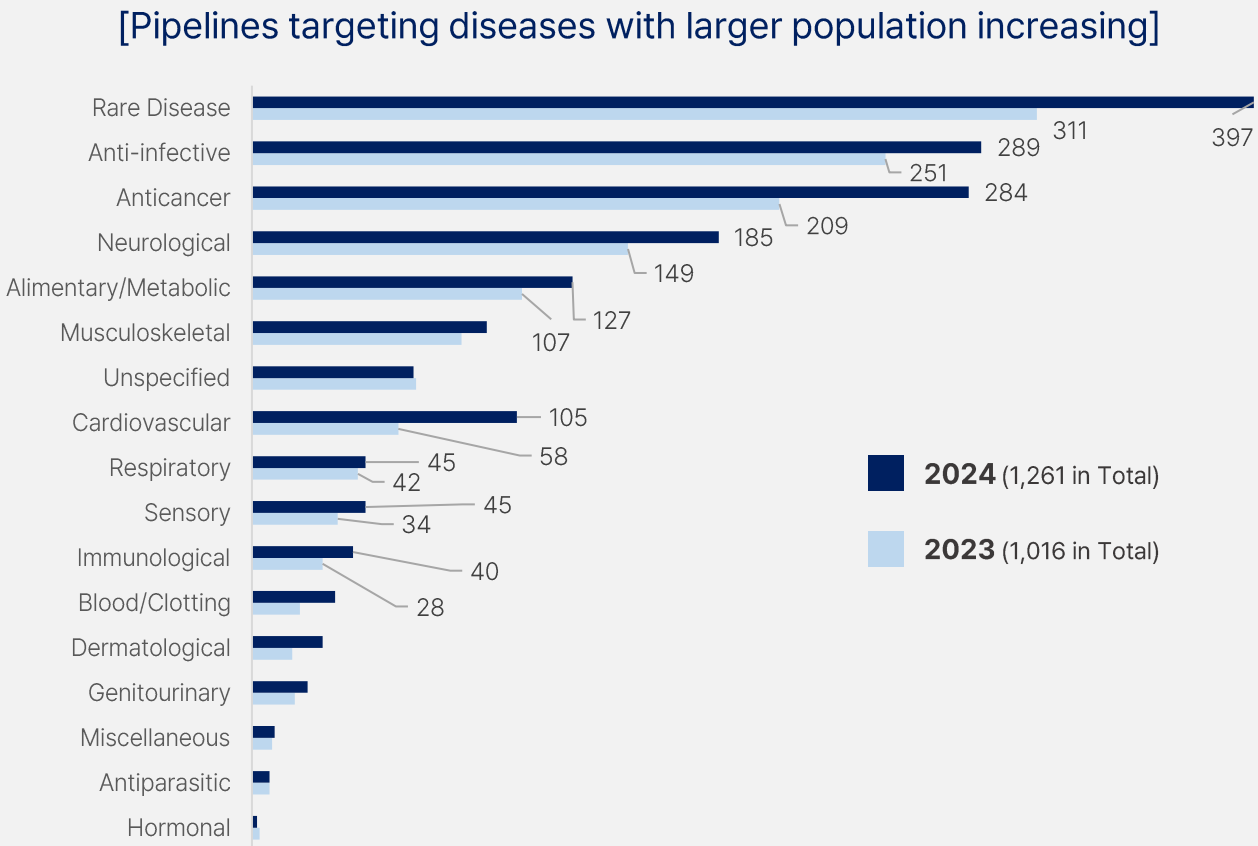
■ Oligonucleotide Market Growth Forecast

Therapeutics market size to achieve **double-digit growth** through 2030, with CDMO market reflecting ≈15% of downstream market

R&D landscape expanding to target diseases with larger population → **from rare & hereditary to chronic diseases (CVD, metabolic, etc.)**



[Referred Source: Cortellis, 2023]



[Referred Source: American Society of Gene and Cell Therapy]



PART 02

## **Business Overview**



Overall Capacity

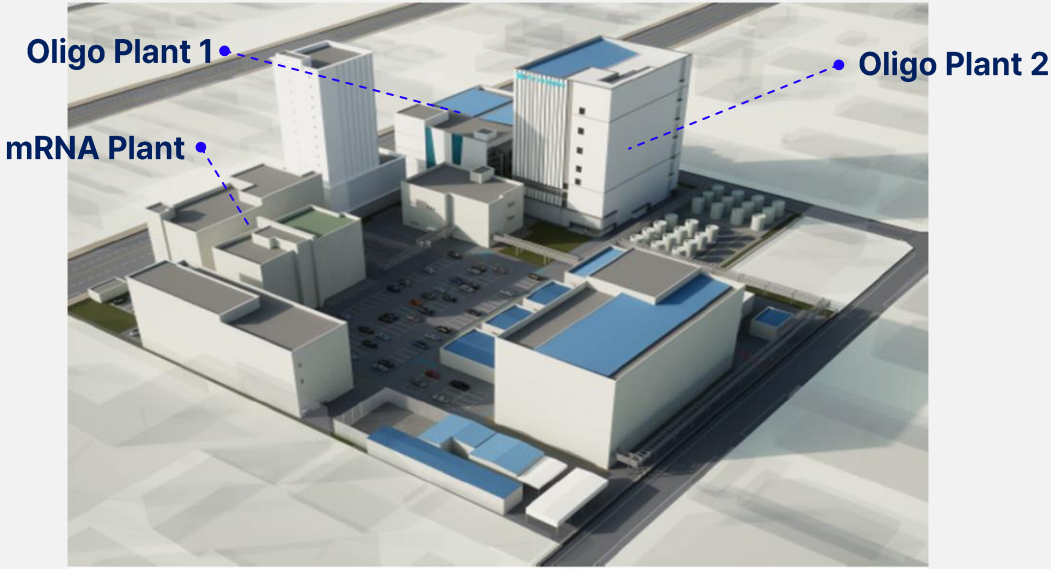
Facility	Chemical Plant	Oligo Plant	mRNA Plant
	SM, Generic, Monomer	Oligonucleotide API	mRNA, Lipid Nano Particles
Equipment Status	96 (Reactors)	6 (Lines)	-
Total Capacity	376,250 L	6 ~ 8 moles*	Max. 100M Dose/Year

\* Include Plant 1 and Plant; Plant 2 operational since July 2025  
\*\* Additional expansion of Plant 2 planned during 2027 ~ 2028

View of Siwha Campus



View of Banwol Campus

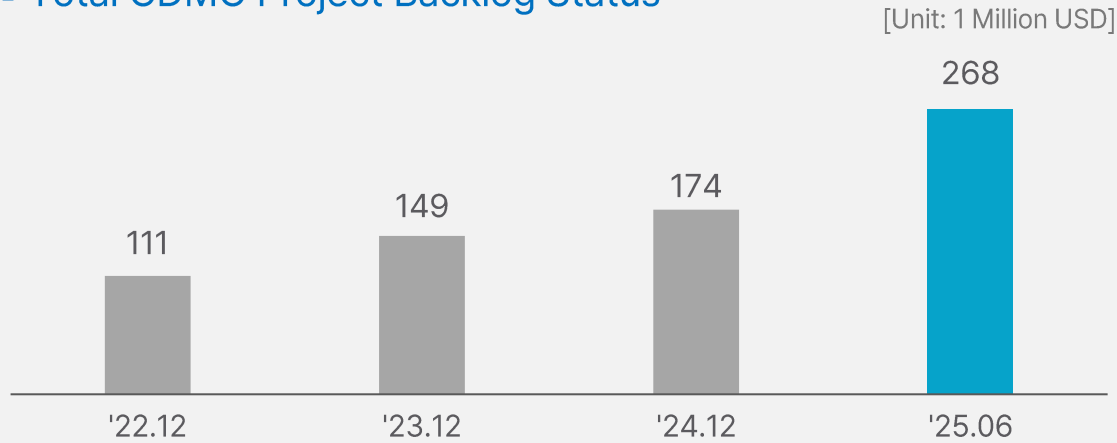




Major CDMO Projects

#	Client	Indication / Target Disease	Stage			
			P1	P2	P3	Approved
Oligonucleotide API						
1	Client A	Hyperlipidemia				
		CVRR	↳ Indication expansion			
2	Client B	Spinal Muscular Atrophy (SMA)				
3	Client C	Myelodysplastic Syndrome (MDS)				
		Myelofibrosis (MF)	↳ Indication expansion			
4	Client D	Familial Chylomicronaemia Synd.				
		Severe Hyper-triglyceridema	↳ Indication expansion			
5	Client D	Hereditary Angioedema				
6	Client A	Atherosclerosis				
7	Client F	IgA Nephropathy				
8	Client E	Chronic Hepatitis B				
9	Client F	Chronic Hepatitis B				
10	Client F	Huntington's Disease				
Small Molecule API						
11	Client G	Not disclosed				
12	Client H	Mitochondrial Dysfunction				

Total CDMO Project Backlog Status



Oligo CDMO Project Backlog Status (as of Apr. 25)

[Unit: 1 Million USD]

Category	End of 2022	End of 2023	End of 2024	Newly Added in 2025
Commercial	13.2	36.1	106.5	44.7
Clinical	67.2	81.4	47.7	37.4
<b>Total (Accumulated)</b>	<b>80.4</b>	<b>117.4</b>	<b>154.2</b>	<b>236.3</b>

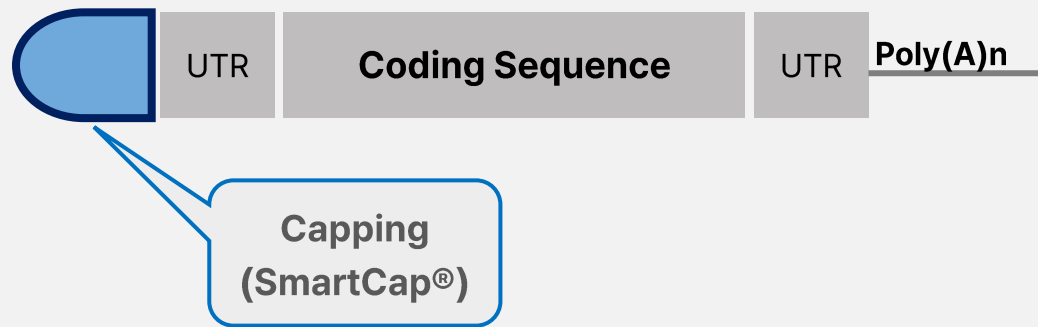
\* Backlog status based on date of Product Order receival  
\*\* Commercial/Clinical project determined based on date of pipeline's new drug approval  
\*\*\* CHF/USD = 1.20 for "Newly Added in 2025"



### ■ In-house Platform Technologies

#### SmartCap® (Stability)

- Registered patent in Korea
- Ongoing PCT International Patent Publication
- Over 30 capping analogues → highly customizable
- Efficacy & Safety data through STP-2104 clinical trial



### Supply Agreements & Partnerships:



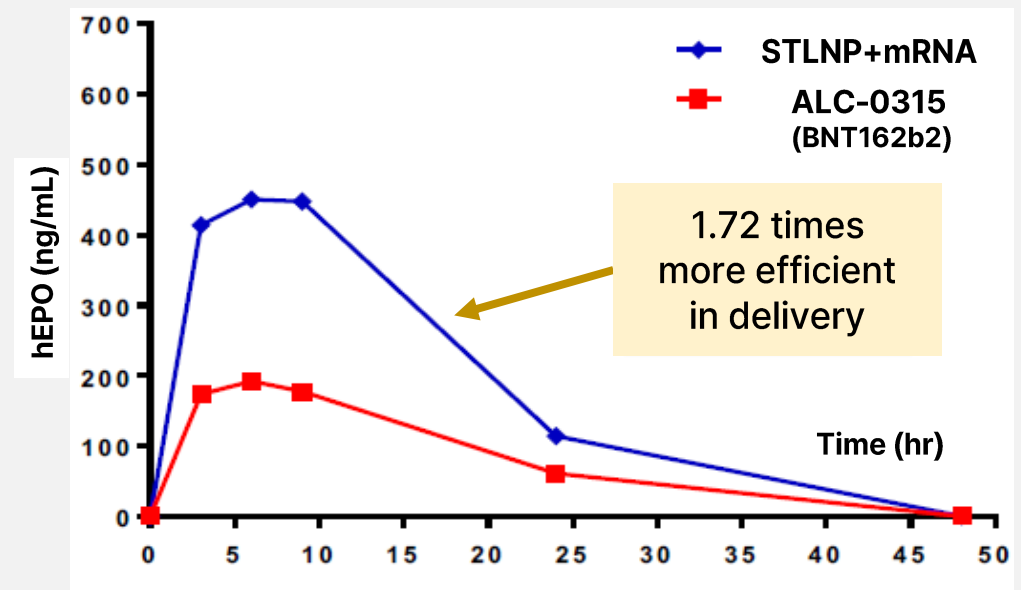
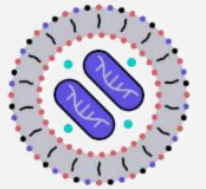
Aug. 2024



Jan. 2025

#### STLNP® (Delivery)

- Ongoing PCT International Patent Publication
- Delivery efficacy data observed from nonclinical study





PART 03

## **Technology & Pipeline**

### Development of **Enzymatic Ligation** approach to revolutionize API production at scale...

#### Our Approach

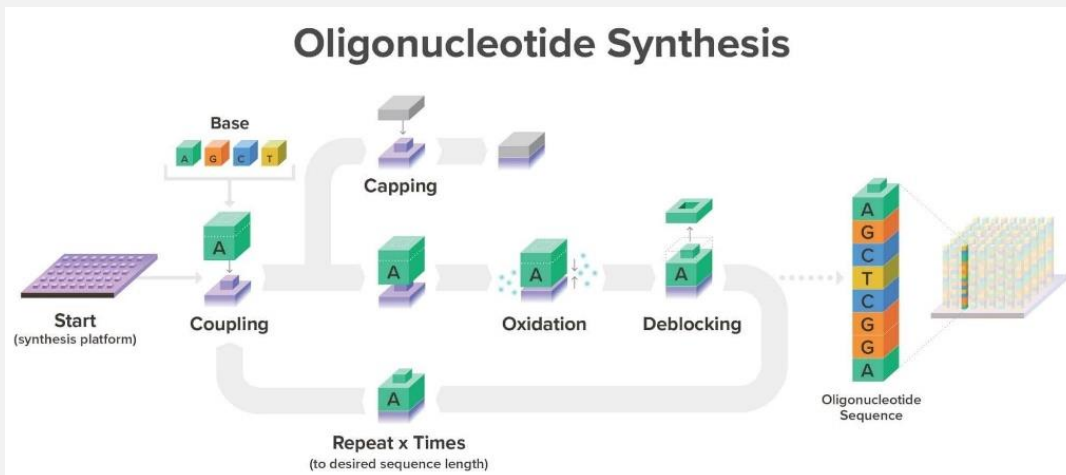
- 1) Synthesize monomers into shortmers instead of phosphoramidites as individual building blocks
- 2) Synthesize shortmers into full-length oligo APIs through enzymatic ligation

*\* Ongoing joint research with global pharmaceuticals/clients for commercialization of technology*

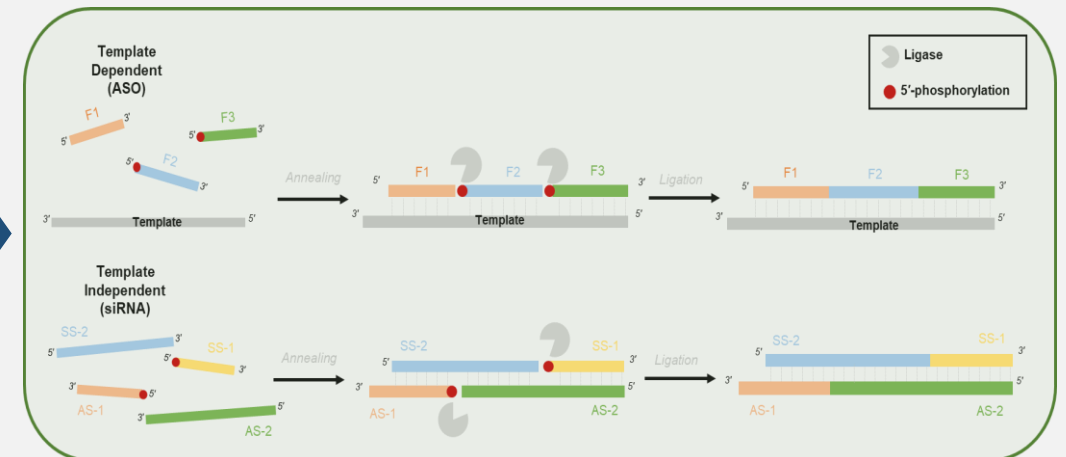
#### Why it matters

- Improves scalability & lowers production cost
- Eco-friendly, by using non-chemical organic solvents (ex. water)
- Allow efficient synthesis of longer-length oligomers/oligonucleotides

#### [Solid Phase OS]



#### [Enzymatic Ligation OS]



[Source: Twist Bioscience]



■ **sgRNA synthesis in response to CRISPR-Cas demands**

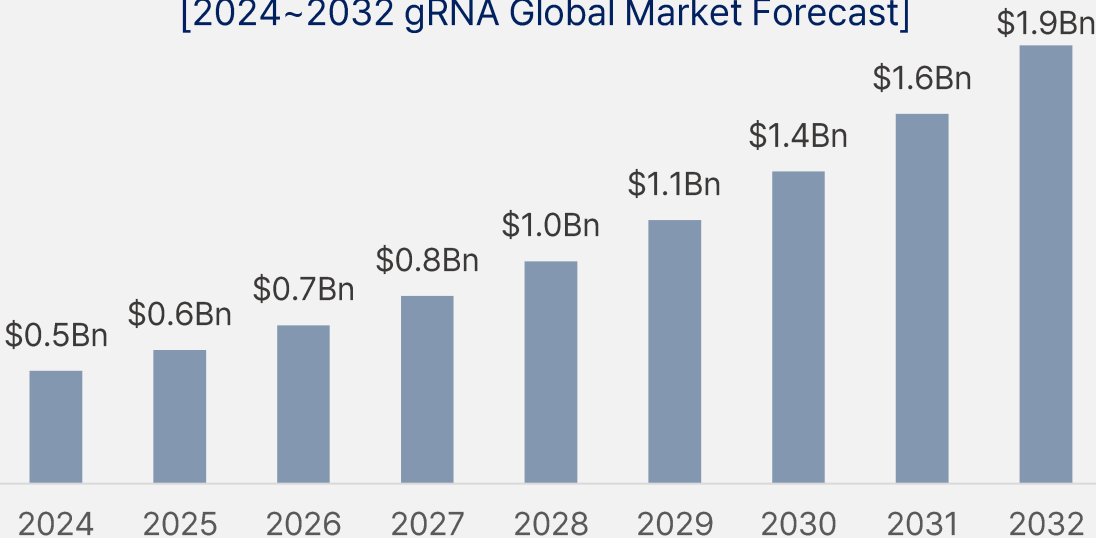
Successful manufacturing of 100-mer sgRNA

- Backed by +20 years of expertise in oligo-/nucleotide synthesis and development of analytical methods
- In-house capability from synthesis-purification to analysis

Ongoing developments and production augmentation

- 130-mer sgRNA development work-in-progress
- On schedule for installing dedicated line during 1Q.2025

[2024~2032 gRNA Global Market Forecast]



[100-mer sgRNA Purification Results]

As of Oct. 2024

Length	Modification	Crude (Pre-Purification)	Post Purification
100 mer	2'-OH	7~17 %	79~87%*

\* Major competitor Target purification ≥ 80% (100-mer)

[Production Facility Status (GMP)]

Status	Line	Capability
Installed	R&D Lab Line* (non-GMP)	50 μmol ~ 1.2 mmol
Installed	Small-scale Line*	1.2~20 mmol
<b>Planned</b>	<b>Small-scale Line [sgRNA-dedicated]</b>	1.2 mmol scale

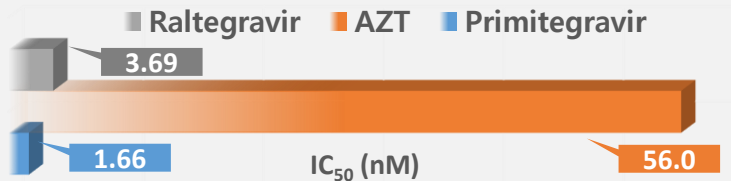
\* Currently utilizing two installed lines for both oligonucleotide & sgRNA synthesis

[Source: AnalystView Market Insight]





### ■ Anti-viral Efficacy (Preclinical, Cell Line MT-4)



### ■ Anti-viral Efficacy against Resistant HIV (Preclinical)

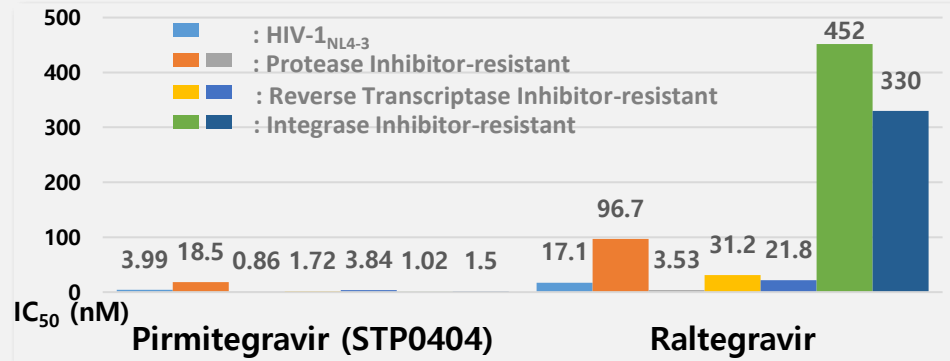


Table 3. Antiviral activity in Raltegravir-resistant strains

Compounds	Average IC <sub>50</sub> (range, nM)	
	PBMC	MT-4
STP0404	0.08 (0.02~0.22)	2.49 (0.95~3.48)
Zidovudine	7.96 (0.22~20.7)	37.94 (29.7~57.6)
Raltegravir	1,227.70 (12.5~3,036)	2525 (351~4,322)
Elvitegravir	-	2751.5 (276~10,000)
Dolutegravir	-	4.57 (3.07~8.54)

RAL-resistant strains: 4736\_2, 4736\_4, 8070\_1, 8070\_2, 1686\_1

- ~33 times higher anti-viral efficacy vs. existing treatments
- High Safety Data results over HIV-1  
Therapeutic Index(TI): STP0404 > 6,020 (Raltegravir > 2,710)
- Existing HIV/AIDS therapies are “inhibitors” of HIV activities
- This induces continuous drug resistance  
(+ no drug with new mechanism for over 10 years)
- STP0404 showed anti-viral efficacy against resistant HIV

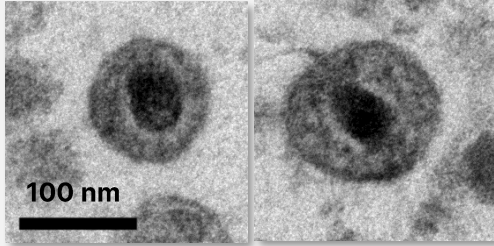
### Phase 2a (U.S.) Clinical Trial Details (NCT05869643)

- Evaluation of antiviral effect, safety, tolerability, and pharmacokinetics in adult participants with HIV-1infection
- Randomized, Double-Blinded, Placebo-Controlled, Multicenter Study
- Approximately 36 enrollments (Jul. 2025)
- Arms: Cohort 1 (low-dose), Cohort 2 (medium-dose), Cohort 3 (high-does) + Placebo Comparator for each Cohorts

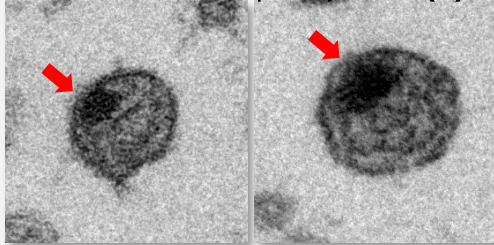


### STP0404 Mechanism of Action

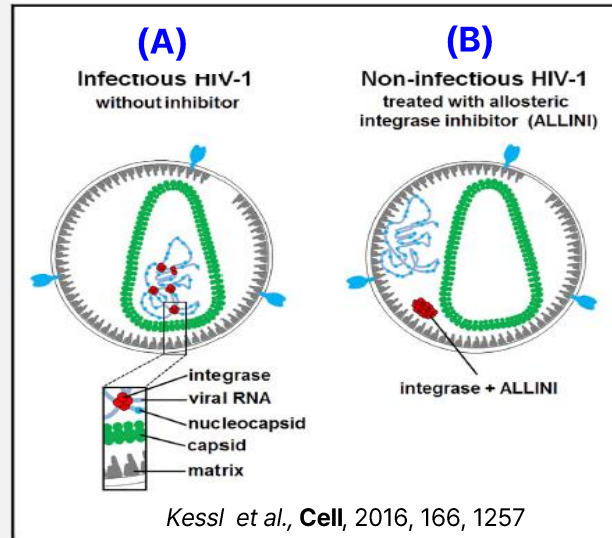
Before Injection (A)



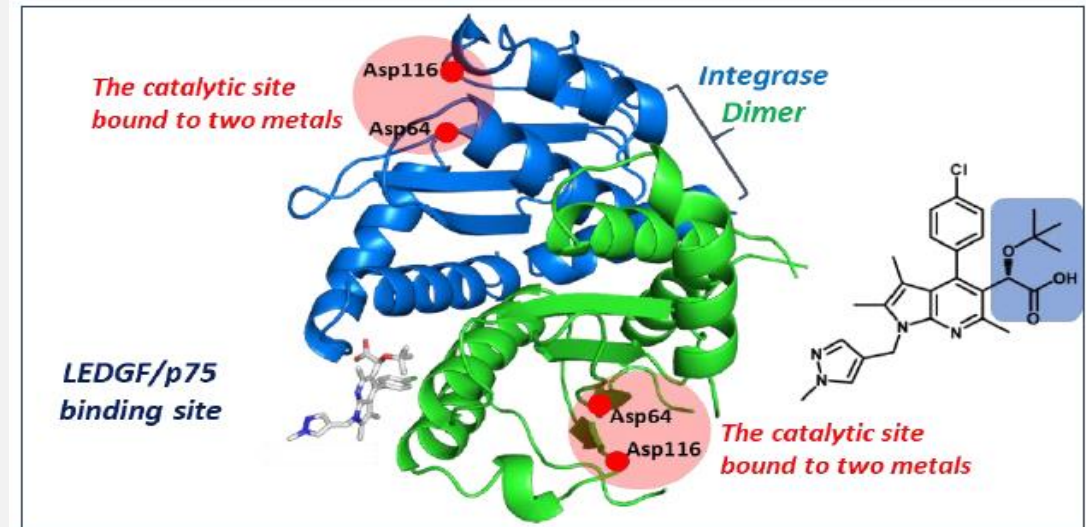
After STP0404 0.2μM Injection (B)



TEM study in Emory Univ.



### STP0404 X-ray Structure



- New mechanism ALLINI (Allosteric integrase inhibitor) founded by Prof. M. Kvaratskhelia (Univ. of Colorado) in 2016
- HIV-1 integrase binds the viral RNA genome and plays an essential role during virion morphogenesis (A)
- ALLINI induces aberrant integrase(IN) multimerization and binds to viral RNA, leading to [mislocalization of viral RNA](#) (B)
- STP0404 leads to mislocalization of vRNP\* complexes outside the viral capsid, allowing the [formation of non-infectious HIV-1](#) (B)
- New MOA for HIV-cure as “[maturation inhibitor](#)” - “[Divide and Conquer](#)”, not ‘Shock & Kill’ or ‘Block & Lock’
- Identification of ALLINI mechanism supported by US NIH grants in 2018. Collaboration with Emory University & University of Colorado Boulder

\* Viral ribonucleoprotein



PART 04

## Appendix



### Overview

RNA Therapeutic is **3<sup>rd</sup>-Gen therapy** that allows a more fundamental treatment by **silencing or inhibiting expression of disease-inducing protein**  
 Only 3% of all DNAs is transcribed to proteins via mRNA  
 The remaining 97% is transcribed to RNA  
 Most RNA functions unidentified ► Great potential RNA-related treatments

### RNA-based Therapeutics

Mechanism: Inhibits expression of harmful proteins RNA

Types: **Anti-sense (ASO)**, **siRNA**, **miRNA** etc.

Examples : Spinraza (Ionis / Biogen) Spinal Muscular Atrophy

Leqvio (Alnylam / Novartis) Hereditary Hyperlipidemia

### Characteristics of RNA-based Therapeutics

**Strengths** : High selectivity over target proteins

Quick & cost-effective development ► **≥ 2yr of Pre-clinical phase**

Very low tolerance

Excellent drug persistence ► **Leqvio 6-months**

Lower drug price ► **Leqvio ≥ U\$4,000** while Repatha = U\$5,850

**Weaknesses**: Difficulty in delivery to organs/cells apart from liver or brain

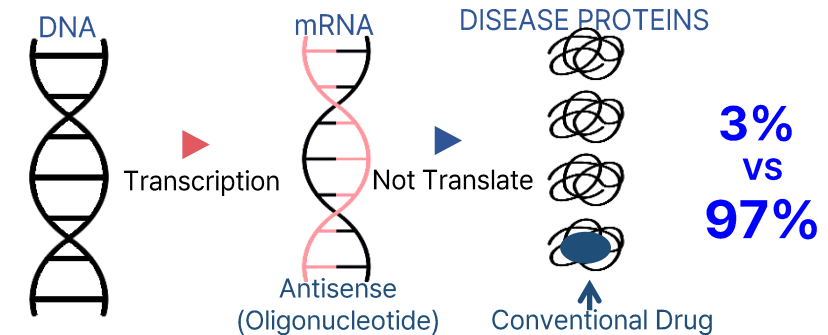
Require delivery technology such as LNP etc.

► New methods: Avidity's **Antibody oligonucleotide conjugates**

Difficulty in mass production ⇒ **Few capable CDMO companies**

### Central Dogma & Non-coding DNA

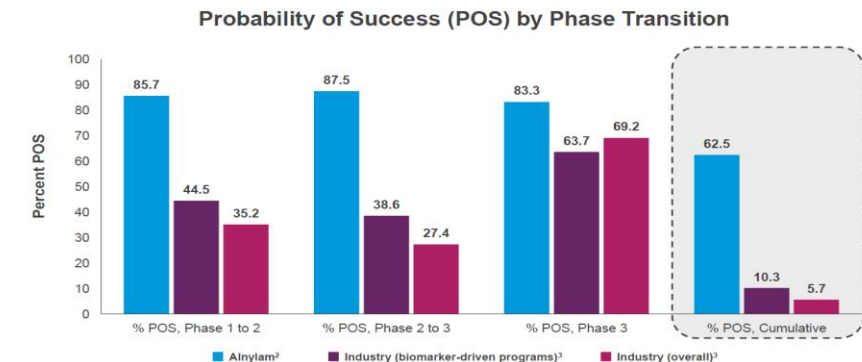
#### HOW RNA-BASED THERAPEUTICS WORK



### Alnylam's siRNA Clinical Trial Success Rate : 62.5%

#### High-Yield Productivity of Alnylam RNAi Therapeutics Platform

Comparison of Historical Industry Metrics to Alnylam Portfolio<sup>1</sup>

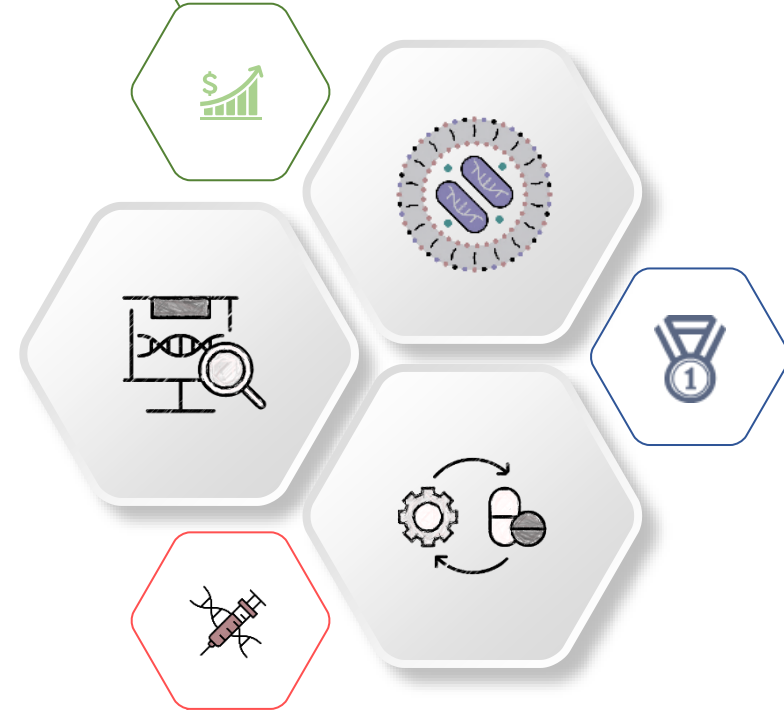


<sup>1</sup> Analysis as of December 2020; Past rates of Alnylam and industry respectively may not be predictive of the future  
<sup>2</sup> Alnylam programs biomarker-driven at all stages of development (100%); figures include ALNY-originated molecules now being developed by partners  
<sup>3</sup> Wong et al., Biostatistics (2019) 20, 2, pp. 275-286

[Source : Alnylam]

# Dong-A Socio Group

Dong-A Socio Holdings





Summary

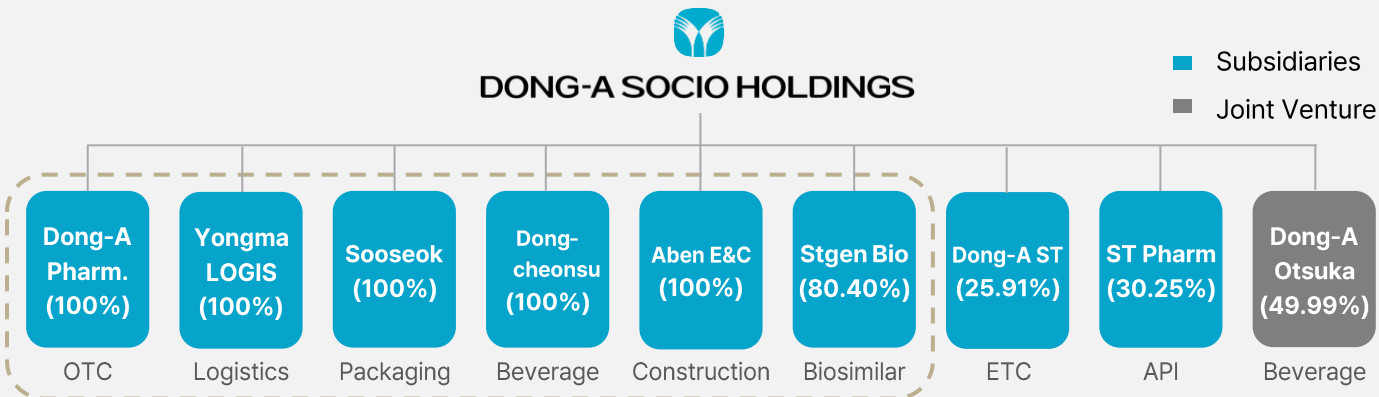
As of 2024

Business Area	Conglomerate (Group management)
Affiliated Share	30.29%
HQ	Seoul, Republic of Korea
Employees	82
Market Cap.	740 Bil. KRW
Asset/Equity	2.03 Tril. KRW / 31.7 Bil. KRW

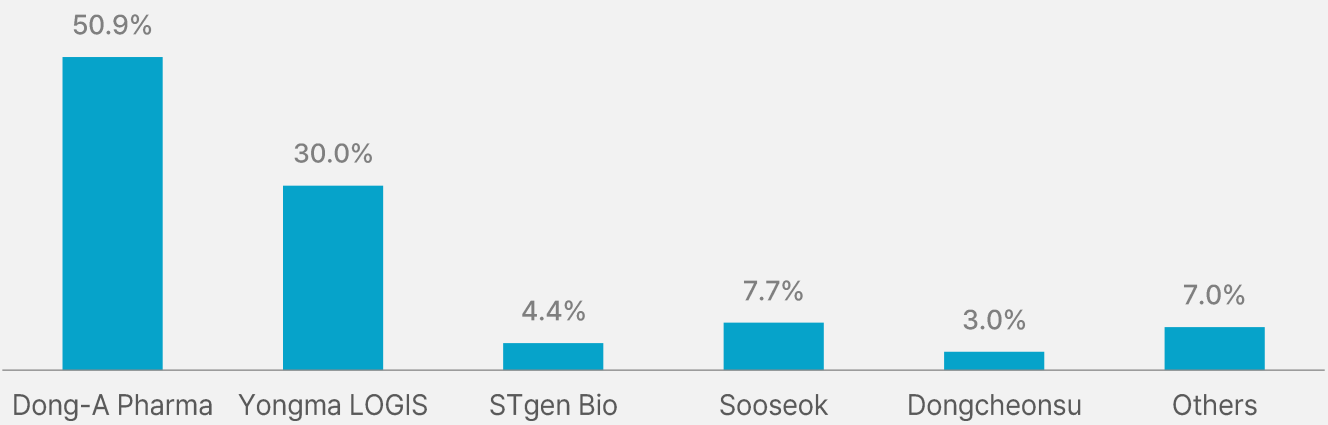
History

- 1932 Establishment / 1970 Initial Public Offering
- 2010 Acquired Samchully Pharm (ST Pharm)
- 2013 Transition to Holdings Company  
: Dong-A ST(Spin-off), Dong-A Pharma(Split-off)
- 2016 ST Pharm IPO / 2021 Acquired Stgen Bio
- 2025 Sooseok-Dongcheonsu Merger

Subsidiary Overview



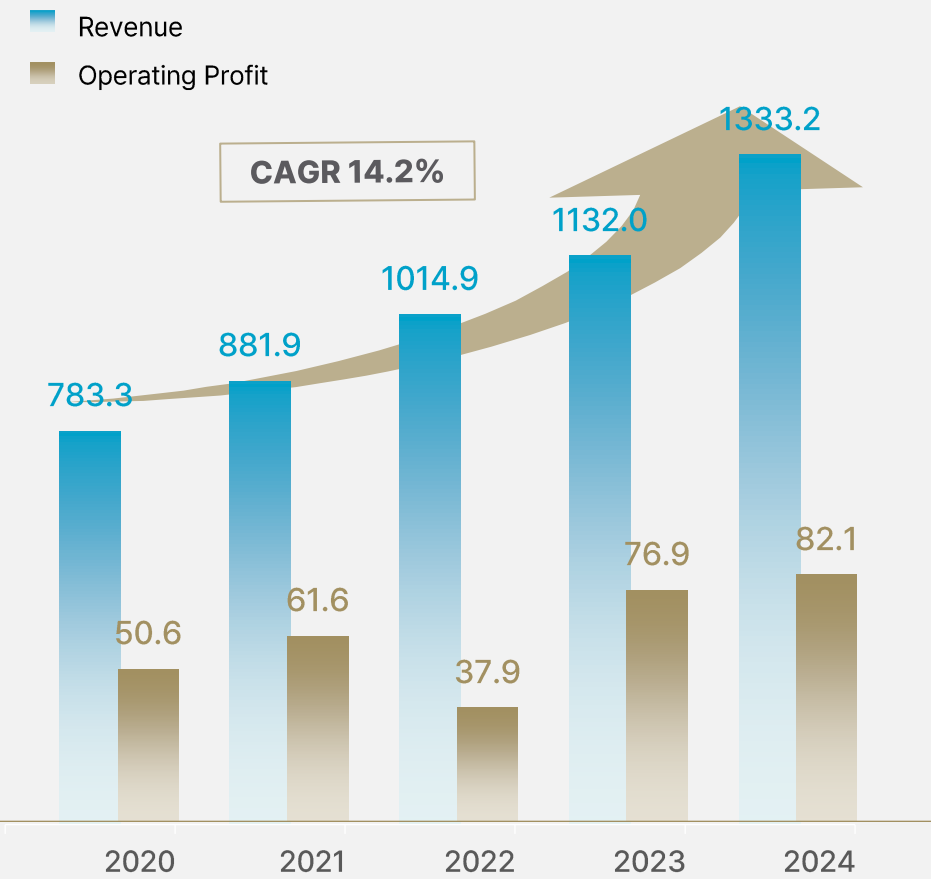
Subsidiaries' Revenue Share





Revenue and Operating Profit Trend

[Unit: 1 billion KRW]



Comments

2020~2024 Revenue CAGR 14.2%

Revenue growth mainly driven by Dong-A Pharma and Yongma LOGIS STgen Bio to be the Group's next growth driver as biosimilar CMO

Summarized Financial Statement

[Unit: 1 billion KRW]

	2023	2024	1H24	1H25	Yoy
Revenue	1132.0	1333.2	629.4	675.3	7.3%
Cost of Goods	757.1	925.2	430.1	454.3	5.6%
SG&A Expense	298.0	326.0	161.4	171.9	6.5%
Operating Profit	76.9	82.1	37.9	49.1	29.7%
Equity Method G&L	21.3	19.3	-	-	-
Net Income	55.9	57.6	-	-	-
OPM	6.8%	6.2%	6.0%	7.3%	1.3%p
NPM	4.9%	4.3%	-	-	-





### Overview



- Wholly-owned subsidiary
- Main Business : Bacchus, OTC drug, Health Functional Foods
- HQ : Seoul, Republic of Korea
- Establishment : Mar. 2013
- Employees : + 1,000
- Asset / Equity : 380 Bil. KRW / 30 Bil. KRW

### Comments

#### 2020년~2024 Revenue CAGR 13.1%

Korea top-selling vitality/energy drink Bacchus & premium vitamin Orthomol leading growth  
Recent Skincare OTC products emerging as new driver (acne cream, etc.)

### Financial Statement

[Unit: 1 billion KRW]

	2023	2024	1H25
<b>Revenue</b>	631.0	678.7	<b>351.7</b>
Cost of Goods	307.8	330.5	<b>172.9</b>
SG&A Expense	243.7	263.0	<b>138.0</b>
<b>Operating Profit</b>	79.6	85.2	<b>40.7</b>
CoS(%)	48.8%	48.7%	<b>49.2%</b>
SG&A Expense(%)	38.6%	38.8%	<b>39.2%</b>
OPM	12.6%	12.6%	<b>11.6%</b>

### Business Areas

[Unit: 1 billion KRW]

	2023	2024	1H25	%
<b>Bacchus</b>	256.9	264.6	<b>124.0</b>	35.2%
<b>OTC</b>	153.0	177.2	<b>110.5</b>	31.4%
Panpyrin	47.9	46.5	22.9	-
Skincare	38.2	52.8	35.5	-
<b>Health Func.</b>	200.3	208.0	<b>100.1</b>	28.5%
Orthomol	120.4	130.2	61.5	-
Garglin	31.2	30.0	15.3	-
<b>Others</b>	20.9	28.9	<b>17.1</b>	4.9%
Fation	13.2	21.3	11.6	-
<b>Total</b>	631.0	678.7	<b>351.7</b>	100.0%





Overview



- Ownership : 80.4%
- Main Business : Biologics CMO Service
- Products : DA-3880, DMB-3115, etc.
- HQ : Songdo, Incheon
- Establishment : Apr. 2015
- Employee : + 300
- Asset / Equity : 167 Bil. KRW / 19 Bil. KRW

Comments

**cGMP/GMP Certification (EMA, FDA) with Groundworks for Global CMO**

Turn around to operating profit after approval of Stelara BS. Shipments planned in '25 (EU, US)  
Receiving multiple RFPs after setting global track record. +14 Bil. KRW of PO from new clients in '25.

Production Facility

Category		STgen Bio	
Business Focus(CMO)		Biosimilar	
Production Capacity	DS	9,000 L USP 2,500 L (3-suite) USP 1,000L (1-suite) USP 500L (1-suite)	
		DP	PFS 10,800 syr/hr
		Biologics CMO Revenue(2024)	
cGMP Certification		FDA/EMA(2024) Approval	

Financial Statement

[Unit: 1 billion KRW]

	2023	2024	1H25
Revenue	51.4	58.9	<b>44.1</b>
Cost of Goods	53.8	52.4	<b>35.2</b>
SG&A Expense	4.1	4.7	<b>2.8</b>
Operating Profit	-6.4	1.7	<b>6.1</b>
CoS(%)	104.6%	89.0%	<b>79.8%</b>
SG&A Expense(%)	7.9%	8.1%	<b>6.3%</b>
OPM	-	3.0%	<b>13.9%</b>



[Unit: 1 billion KRW]

Company		Annual			Quarterly				
		2022	2023	2024	2Q24	3Q24	4Q24	1Q25	2Q25
Dong-A Pharma	Revenue	543.0	631.0	678.7	175.6	179.5	165.1	170.1	181.6
	Operating Profit	67.1	79.6	85.2	21.0	22.1	22.7	16.9	23.9
STgen Bio	Revenue	27.9	51.4	58.9	7.6	16.8	22.9	19.1	25.0
	Operating Profit	-15.7	-6.4	1.7	0.1	0.9	0.4	1.9	4.3
Yongma LOGIS	Revenue	345.3	355.9	400.4	101.7	102.3	104.8	100.9	100.7
	Operating Profit	6.6	13.8	19.0	7.9	4.3	4.8	4.3	4.9
Dong-A Ecopack (Sooseok)	Revenue	105.1	104.3	103.1	26.3	27.0	26.0	23.9	34.2
	Operating Profit	-3.5	2.4	-3.6	-1.4	-1.0	0.5	-0.5	-0.7
Dong-cheonsu	Revenue	32.9	34.0	39.6	10.2	11.1	9.0	8.7	3.9
	Operating Profit	1.0	-1.4	-6.4	-1.3	-1.5	-2.1	-1.9	-0.5

\* Sooseok merger of Dongchoensu in Apr. 30. 2025. Sooseok company name changed to Dong-A Ecopack



	2021~2023		2024~2026
Policy	<b><u>30% of Adjusted Net Income (con.)</u></b> ▷ excluding non-recurring P&L		<b><u>50% of FCF(sep.)</u></b> ▷ FCF : CFO - CAPEX CAPEX = Asset Acquisition + Equity Method Investment
Dividend	<b>Cash Dividend of 30 Billion KRW for 3 years</b>		<b>Cash Dividend of 30 Billion KRW for 3 years with quarterly dividends + <u>3% Stock Dividend</u></b>
Treasury Stock	<b>Buyback &amp; Retirement through residual financial resources</b>		<b>Buyback &amp; Retirement through residual financial resources</b>

※ Completed Shareholder Return Policy for FY2021~FY2023  
→ Total of 32.5 Bil. KRW (FY2021년 9.4 Bil. KRW, FY2022년 9.4 Bil. KRW, FY2023 13.8 Bil. KRW)

Thank You  
**Dong-A Socio Group**

