



# StrideBio Overview

*Corporate Presentation*  
2022



The next evolution  
in gene therapy

# Agenda

---

1. Company Overview

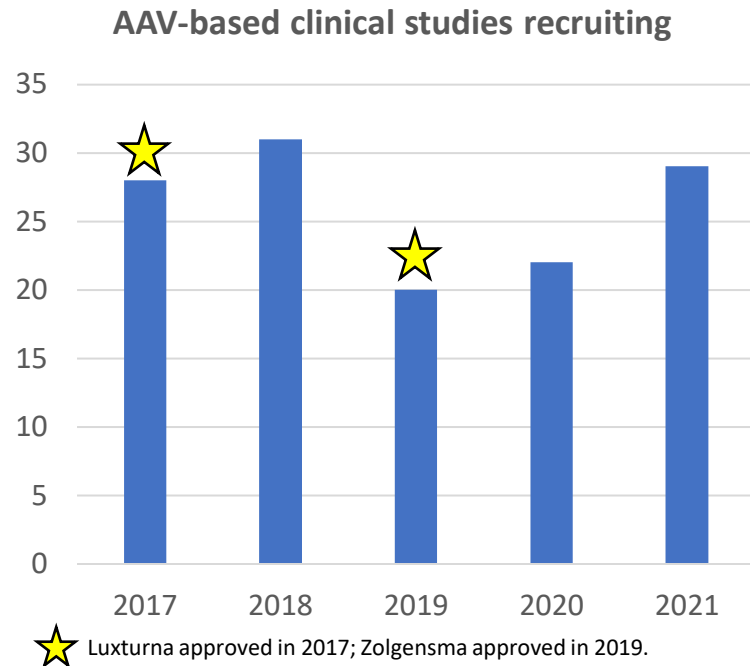
2. STRIVE™ Capsid Platform

3. AAV Manufacturing Capabilities

4. Therapeutic Pipeline

# AAV Gene Therapy: Momentum with Recent Approvals but Tough Challenges Remain

## Sustained Interest in Gene Therapies



## Several Challenges Still to Overcome

- Multiple clinical & non-clinical holds for AAV-based gene therapies
- Safety & Manufacturing as main drivers of failures

- Serious adverse effects & liver toxicities



- Manufacturing and other CMC issues

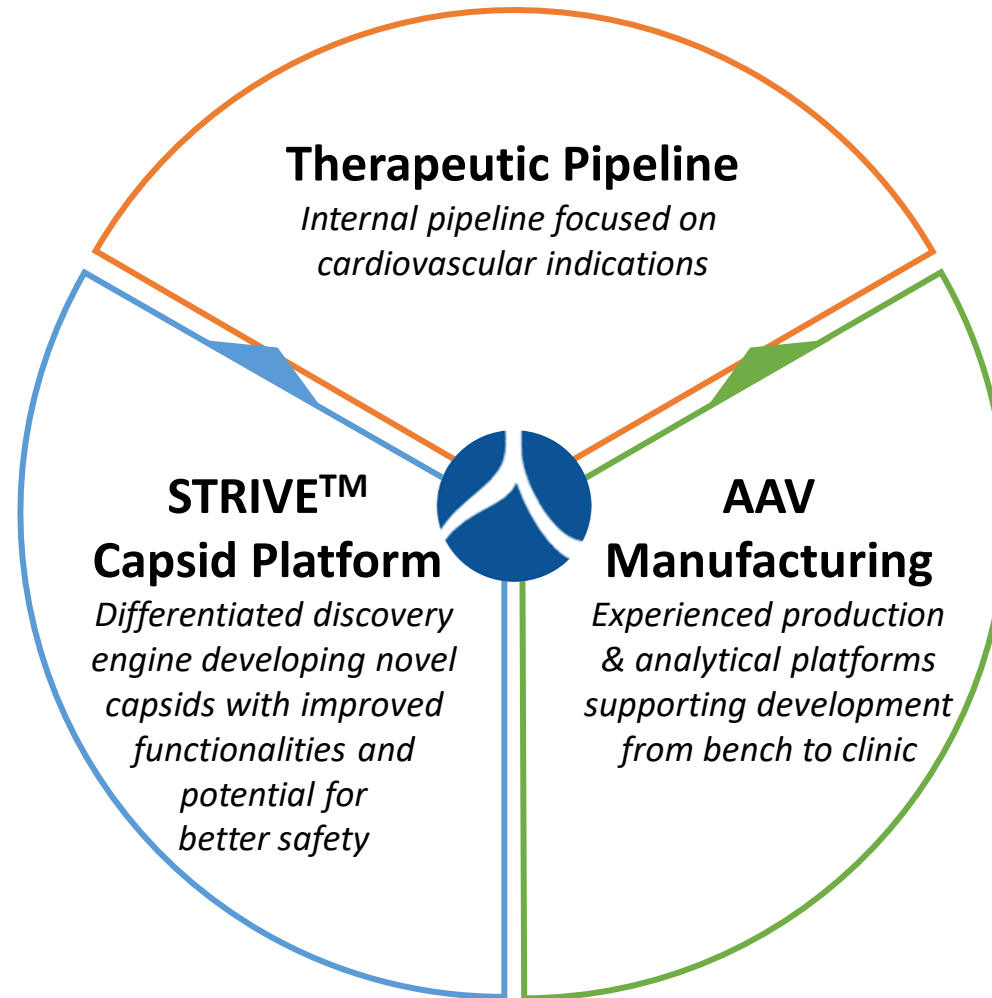


Optimized capsids with better safety profiles & robust manufacturing platforms are key to AAV gene therapy success

Source: [www.clinicaltrials.gov](http://www.clinicaltrials.gov); searched for trials starting in each year with keywords "AAV or rAAV or adeno-associated."

# StrideBio: Fully-integrated Company Leading the Next Evolution in Gene Therapy

---



# StrideBio: STRIVE Platform & AAV Manufacturing as Key Enablers of our Therapeutic Pipeline

## **STRIVE Platform: differentiated discovery engine developing capsids with improved functionalities**

- Utilizes 3D structure to iteratively mutate multiple epitopes to optimize capsids with improved functionalities and better safety profiles: enhanced tissue tropism, liver de-targeting, improved transduction & potency, cell type specificity, NAb evasion
- Leverages cross-species evolution to potentially de-risk clinical development
- Manufacturability-focused: early integration of core manufacturing elements (cells, reagents, bioprocessing steps)
- Large and expanding arsenal of capsids backed by robust IP estate

## **AAV Manufacturing: robust production & analytical platforms supporting development from bench to clinic**

- Internalized, standardized and scalable manufacturing process using internally-developed mammalian cell line and optimized for efficient production of high-purity rAAV
- Comprehensive analytical capabilities: 20 assays in-house to support discovery, process, and therapeutics development
- End-to-end flexible and experienced production engine: >850 production runs executed, from 0.2L to 1000L scale

## **Therapeutics Pipeline: internal pipeline focused on cardiovascular indications**

- ARVC is lead therapeutic candidate; expect to submit IND in 2H23 and start Ph 1/2 trial in 1H24
- HCM (MYBPC3): discovery work ongoing with intent to identify therapeutic candidate by 1H23
- Partnered programs with Sarepta and Takeda focused on neuro

# Agenda

---

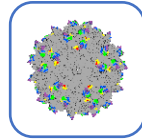
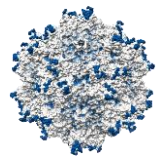
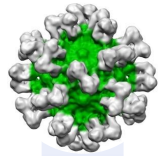
1. Company Overview

2. STRIVE™ Capsid Platform

3. AAV Manufacturing Capabilities

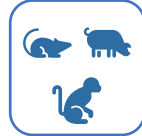
4. Therapeutic Pipeline

# STRIVE Capsid Platform: A Differentiated Discovery Engine



## 3D Structure-guided Engineering

*Multiple targeted functionality-relevant epitopes mutated iteratively based on 3D structure*



## Cross-species Evolution

*Cross-species (pigs, mice, NHPs) evolved to potentially de-risk clinical development*



## Improved Functionalities

*Properties multiplexed onto single capsids*



## Manufacturability

*Early focus and early integration of core manufacturing elements*



## Capsid Arsenal Expansion

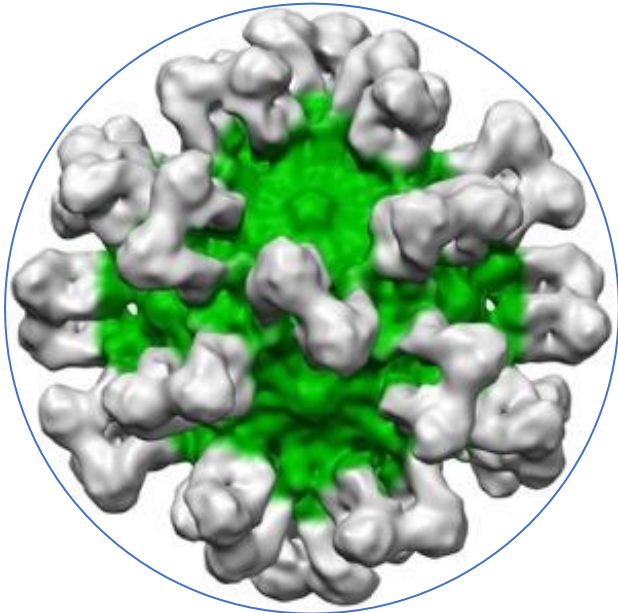
*Enhanced library diversity to expand arsenal of evolved capsids*

NHP: non-human primate.

# STRIVE Capsid Platform

---

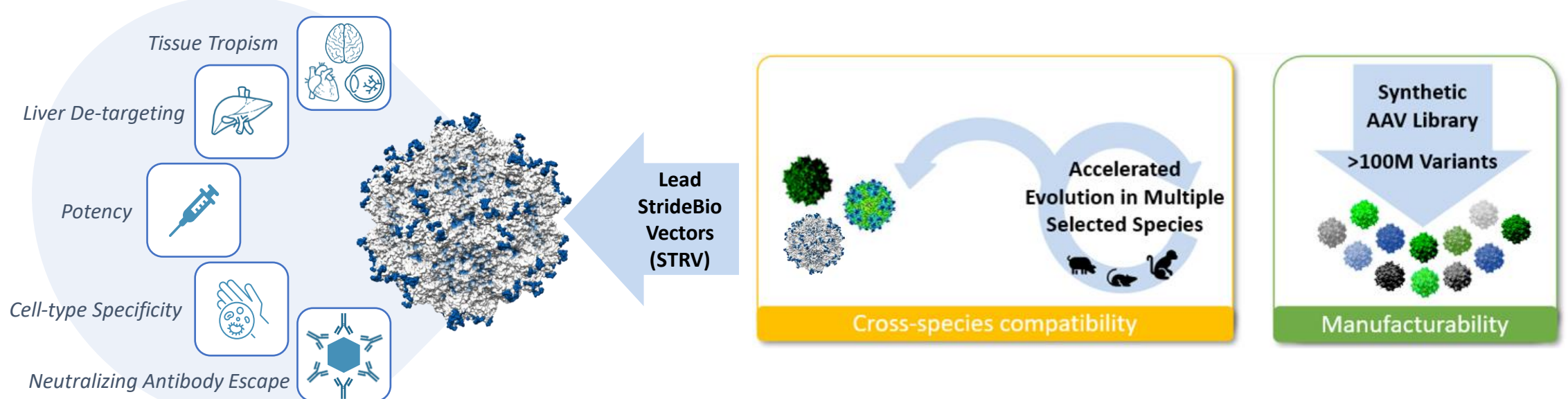
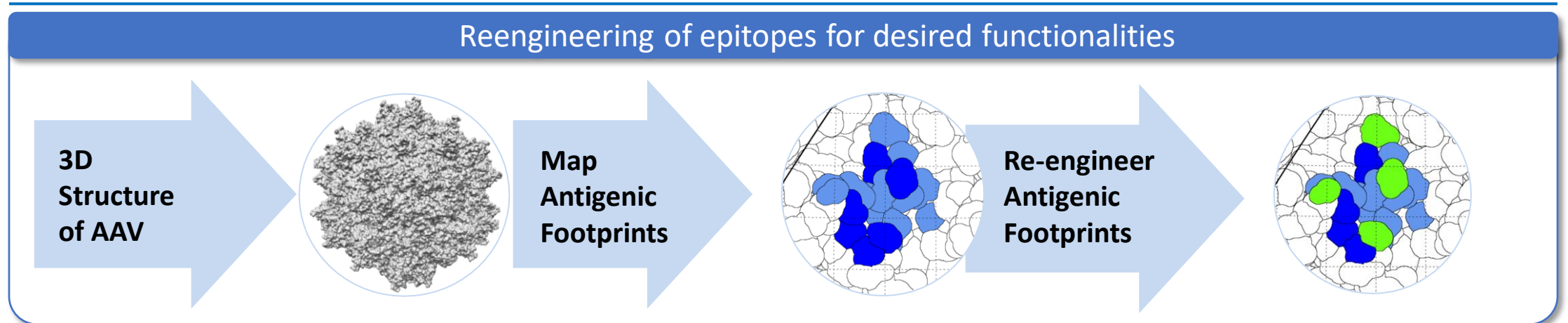
## Structure Inspired Vector Engineering (STRIVE) Platform





- Differentiated engineering approach driven by 3D structure of AAV capsid and antibody complex to **optimize capsid functionalities**
- Versatile, iterative, cross-species platform to customize capsids for **improved safety profile**
- **Expanding capsid arsenal** and IP estate



# STRIVE Capsid Platform: A Differentiated Discovery Engine

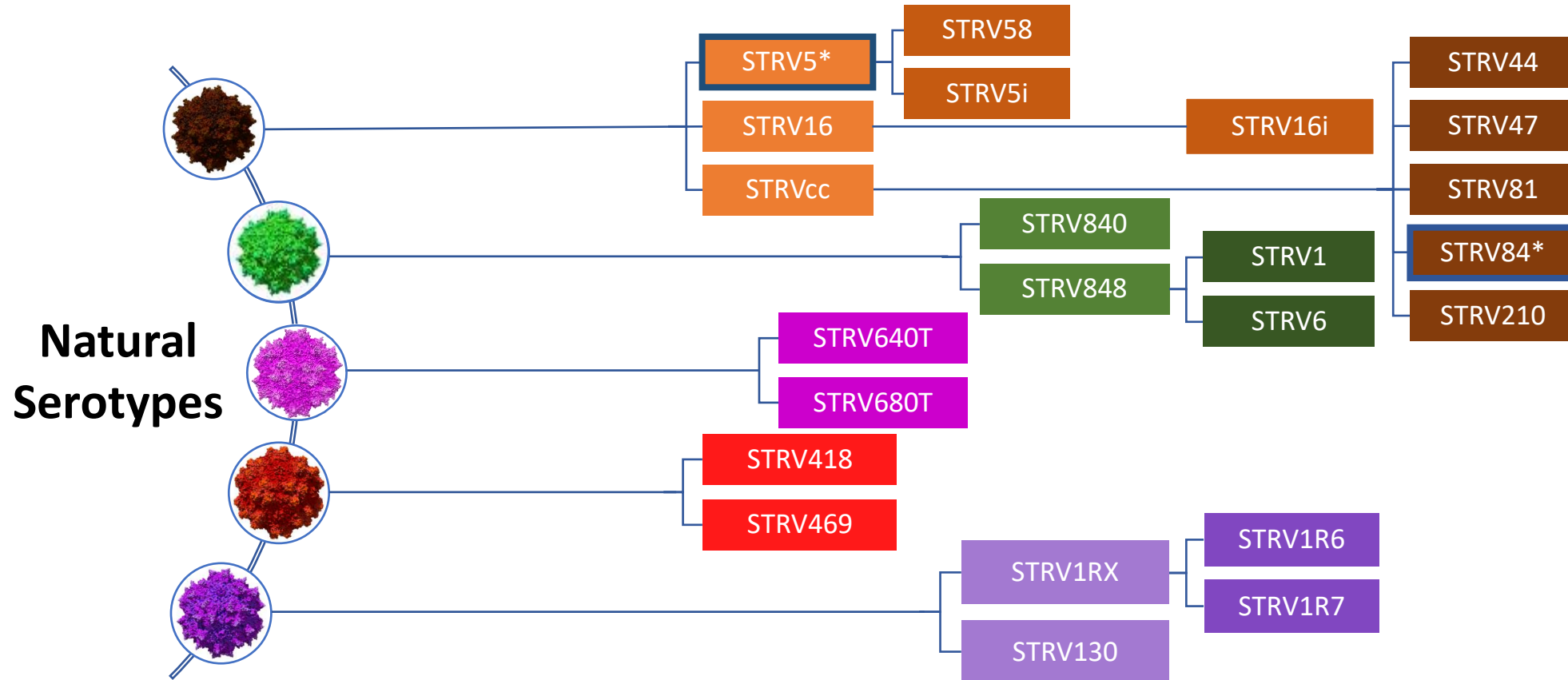


# Differentiated Attributes Of STRIVE Capsid Platform

		<i>Selected Example Co.'s</i> 	
Engineering	Multiple targeted functionality-relevant epitopes iteratively mutated based on 3D structure (up to >5% modification)	<p>Peptide-insertion using 2D sequence, limiting modifications of overall capsid (&lt;1% modification of entire capsid sequence)</p> <p>Point mutation, peptide insertion, DNA shuffling using 2D sequence; unable to further refine mutations</p>	
Evolution	Cross-species (pigs, mice, NHPs) evolved to potentially de-risk clinical development	Development is linear and when done in two animal species, done in parallel (i.e., not iterative across several species to optimize capsid); poses potential risk for clinical translation	
Capsid Functionalities	Multiplex properties onto single capsids: enhanced <u>tropism</u> , improved <u>transduction</u> & <u>potency</u> , better <u>safety profile</u>	Lower ability to multiplex properties onto single capsid; harder to optimize and customize capsids for specific functionalities	
Manufacturing Integration	Manufacturability is key initial gate for capsid development: early integration of core manufacturing elements	Manufacturing capabilities generally limited; most currently being built out, with initial focus on small scale and not through clinical development; utilizes different cell lines through process	

Sources: Company websites, presentations, & filings.

# Large and Expanding Arsenal of Capsids



Robust IP estate covering all novel capsids

STRVcc: cross-species compatible STRV capsids.

\* Capsid selected for therapeutic candidate

# Agenda

---

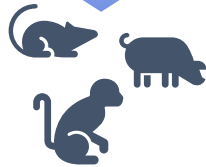
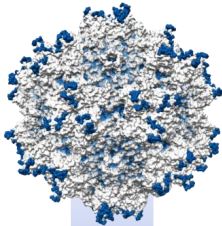
1. Company Overview

2. STRIVE™ Capsid Platform

3. AAV Manufacturing Capabilities

4. Therapeutic Pipeline

# Manufacturing Platform: Robust Internal Capabilities to Support Needs from Bench to Clinic



## Universal, End-to-end Manufacturing Process

*Internalized, standardized, and scalable*



## Best-in-class Process Boosted by Strong Internal Know-How

*Internally developed materials & methods to optimize process efficiency & product quality*



## Experienced, Scalable Production Supportive of Clinical Needs

*>850 production runs executed, proven scalability from 0.2L to 1000L scale*



## Uncompromising Focus on Product Quality

*Products consistently meeting superior purity standards*



## Robust, Comprehensive, & Phase-appropriate Analytical Platform

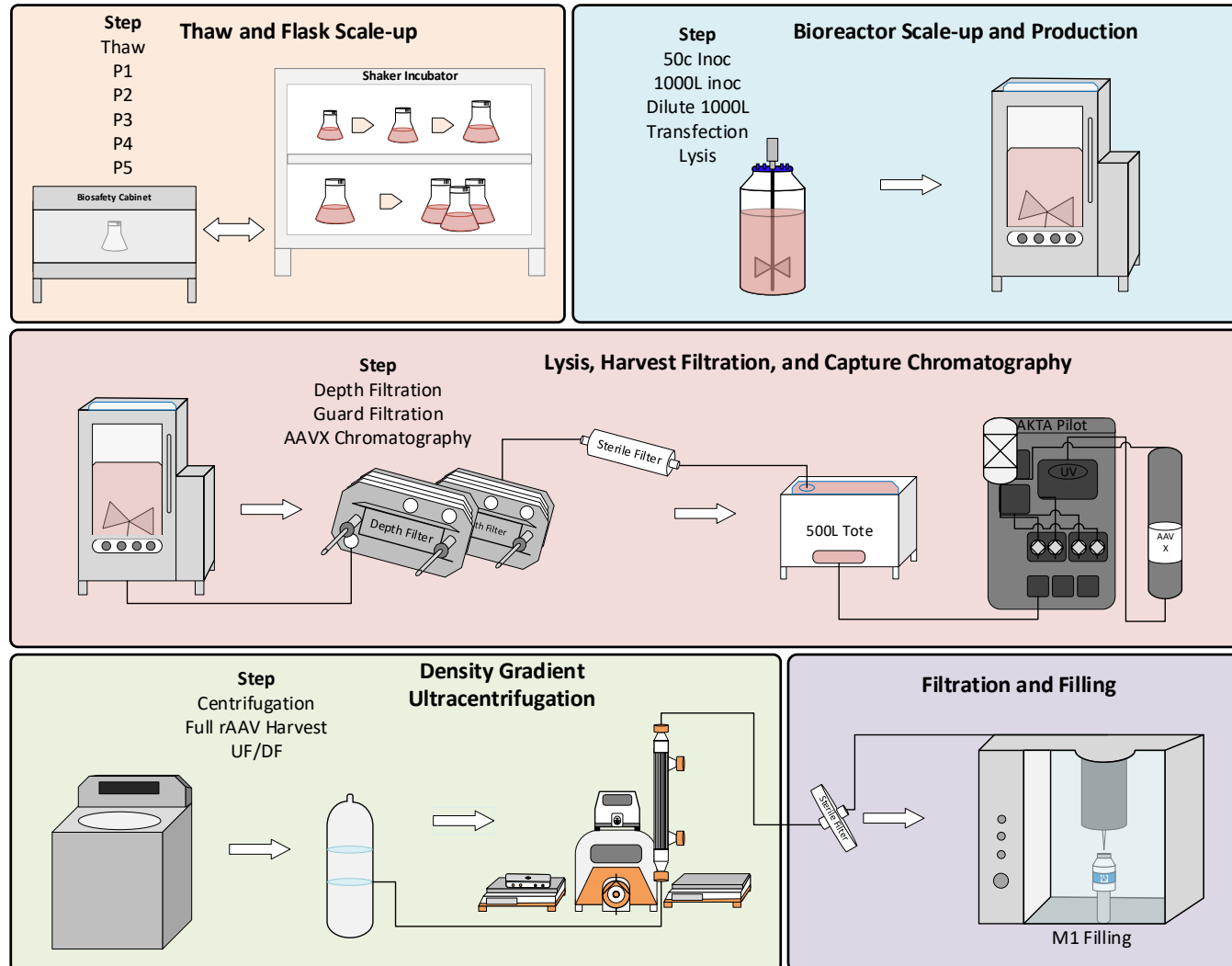
*20 assays in-house to support development from discovery to clinic*



## Gearing Up for Clinical Readiness

*Clinic-ready process, in-house 1000L cGMP facility built-out, seasoned team in place*

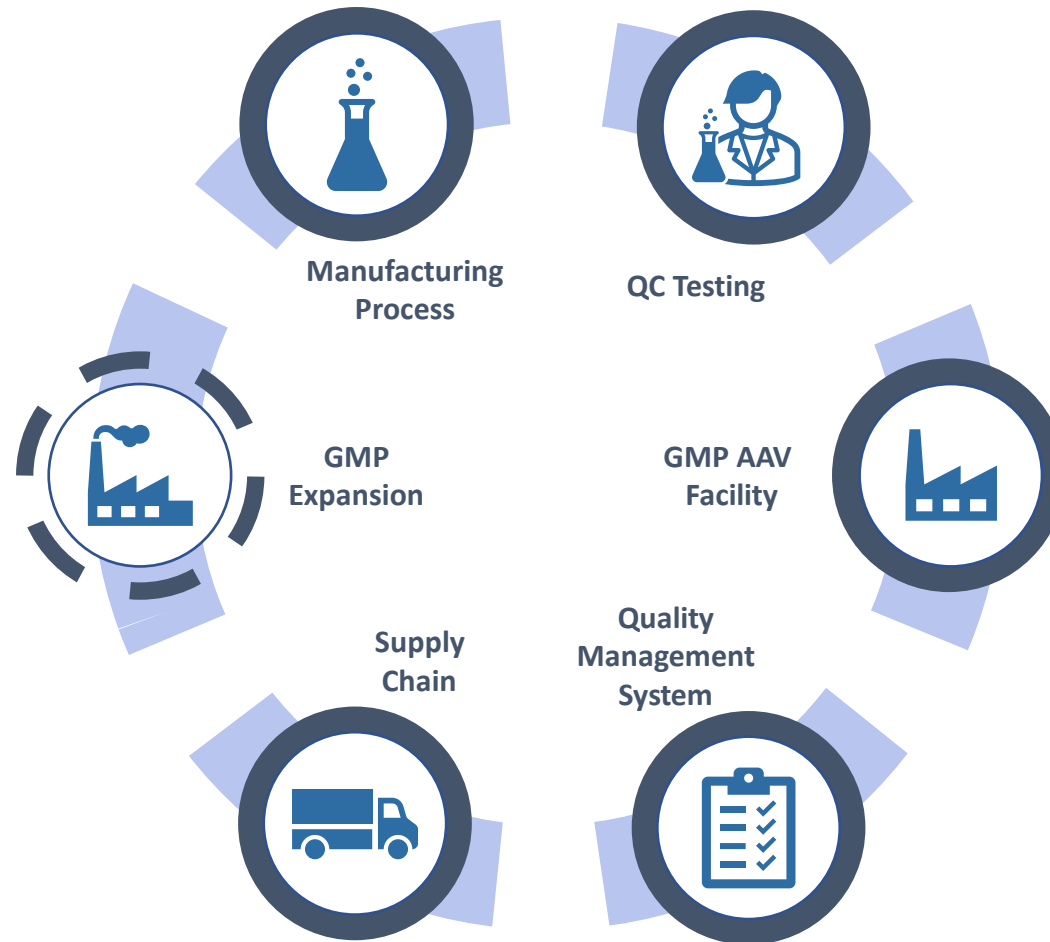
# Universal, End-to-end Manufacturing Process



- **Internalized:** full ownership & know-how of end-to-end process, no reliance on CDMOs
- **Standardized:** universal baseline process developed for efficient manufacturing of high-purity products with STRV capsids
- **Differentiated:** internally-developed materials & methods to enhance process efficiency & product quality
- **Scalable:** ~850 executed productions from flasks to 1000L scale, reproducible yields & recovery
- **Clinic-ready:** GMP-appropriate unit operations, yields supportive of clinical needs

# Gearing Up for Clinical Readiness

---



# Agenda

---

1. Company Overview








2. STRIVE™ Capsid Platform

3. AAV Manufacturing Capabilities

4. Therapeutic Pipeline



# Robust Therapeutic Pipeline Enabled by Novel Capsids

		PARTNER	DISCOVERY	PRECLINICAL	EARLY CLINICAL	LATE CLINICAL
StrideBio	<b>STRX-330</b>	Arrhythmogenic Right Ventricular Cardiomyopathy	 <b>stridebio</b> Wholly owned	Expected to file IND in 2H23		
	<b>STRX-340</b>	Hypertrophic Cardiomyopathy	 <b>stridebio</b> Wholly owned	Expected to select candidate in 1H23		
Sarepta	<b>STRX-210</b>	Niemann Pick Disease Type C	 <b>SAREPTA</b> THERAPEUTICS			
	<b>STRX-220</b>	Angelman Syndrome	 <b>SAREPTA</b> THERAPEUTICS			
	<b>STRX-230</b>	Rett Syndrome	 <b>SAREPTA</b> THERAPEUTICS			
	<b>STRX-240</b>	Dravet Syndrome	 <b>SAREPTA</b> THERAPEUTICS			
Takeda	<b>STRX-110</b>	Friedreich's Ataxia	 <b>Takeda</b>			