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WuXi AppTec

2022 WuXi AppTec Investor Day

WuXi ATU: A Global CTDMO

David Chang, Ph.D.
WuXi ATU CEO

Forward Looking Statements

This presentation may contain certain “forward-looking statements” which are not historical facts, but instead are predictions about future events based on our beliefs as well as assumptions made by and information currently available to our management. Although we believe that our predictions are reasonable, future events are inherently uncertain and our forward-looking statements may turn out to be incorrect. Our forward-looking statements are subject to risks relating to, among other things, the ability of our service offerings to compete effectively, our ability to meet timelines for the expansion of our service offerings, our ability to protect our clients’ intellectual property, unforeseeable international tension, competition, the impact of emergencies and other force majeure. Our forward-looking statements in this presentation speak only as of the date on which they are made, and we assume no obligation to update any forward-looking statements except as required by applicable law or listing rules. Accordingly, you are strongly cautioned that reliance on any forward-looking statements involves known and unknown risks and uncertainties. All forward-looking statements contained herein are qualified by reference to the cautionary statements set forth in this section. All information provided in this presentation is as of the date of this presentation and are based on assumptions that we believe to be reasonable as of this date, and we do not undertake any obligation to update any forward-looking statement, except as required under applicable law.

WuXi ATU – A Globally Integrated CTDMO

“Enabling DNA to BLA”

Discovery & Early Development — **Development, Manufacturing, & Testing**

DISCOVERY | Preclinical Biomanufacturing | Pre-IND | Phase I | Phase II | Phase III | BLA/Commercial

Three business engines fueled by global platforms

Advanced technologies, manufacturing and testing solutions for cell and gene therapy innovators

Viral Vectors
AAV | LVV | HSV | Adeno | Plasmids

Cell Therapies
CAR-T | TIL | MSC

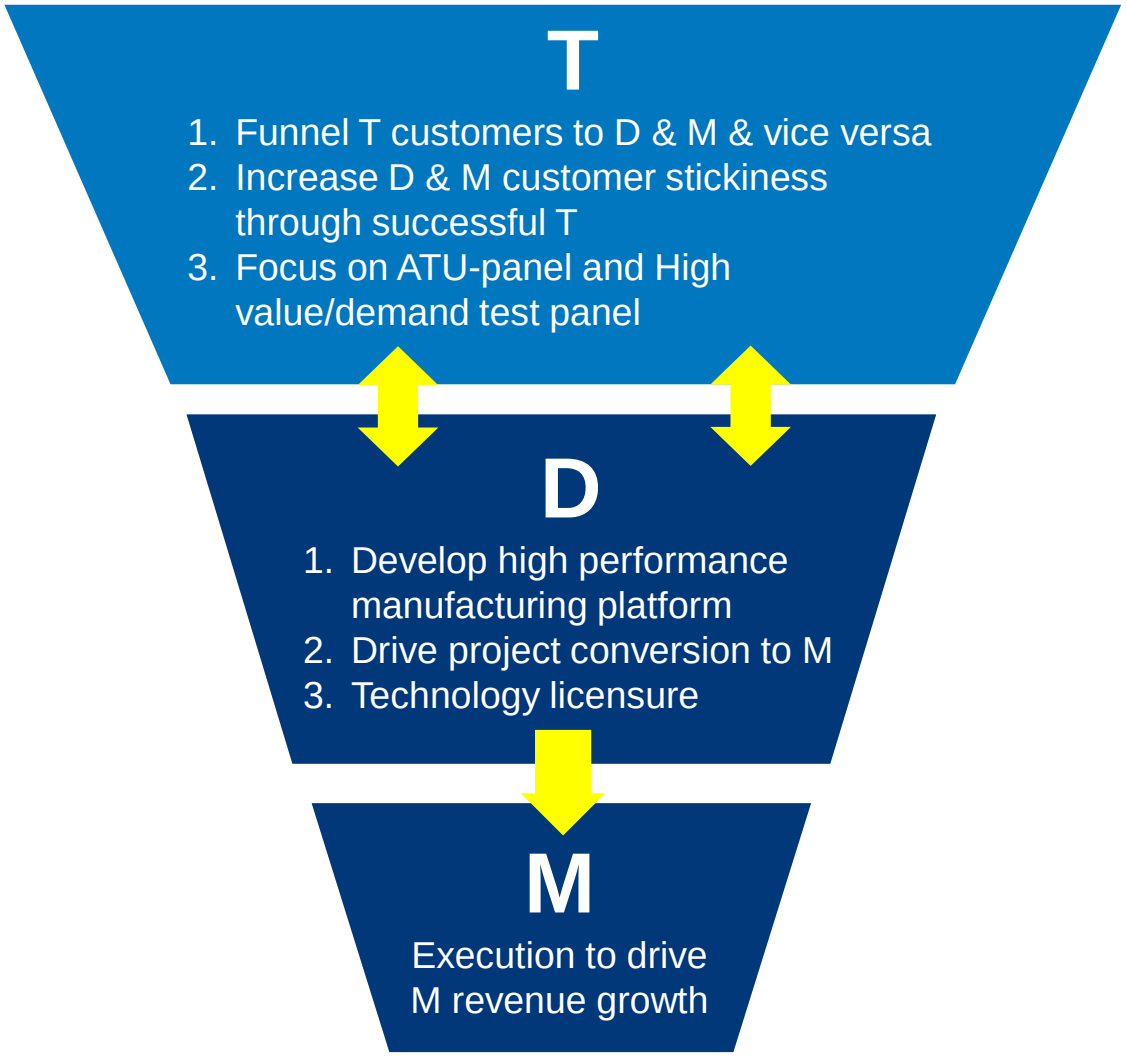
Testing
Integrated and standalone advanced therapy and biologics testing

5 sites across **3** continents | **75k+** m^2 facilities | **1,300+** employees

Over **2200** VV and cell therapies GMP lots released

ATU CTDMO Business Model

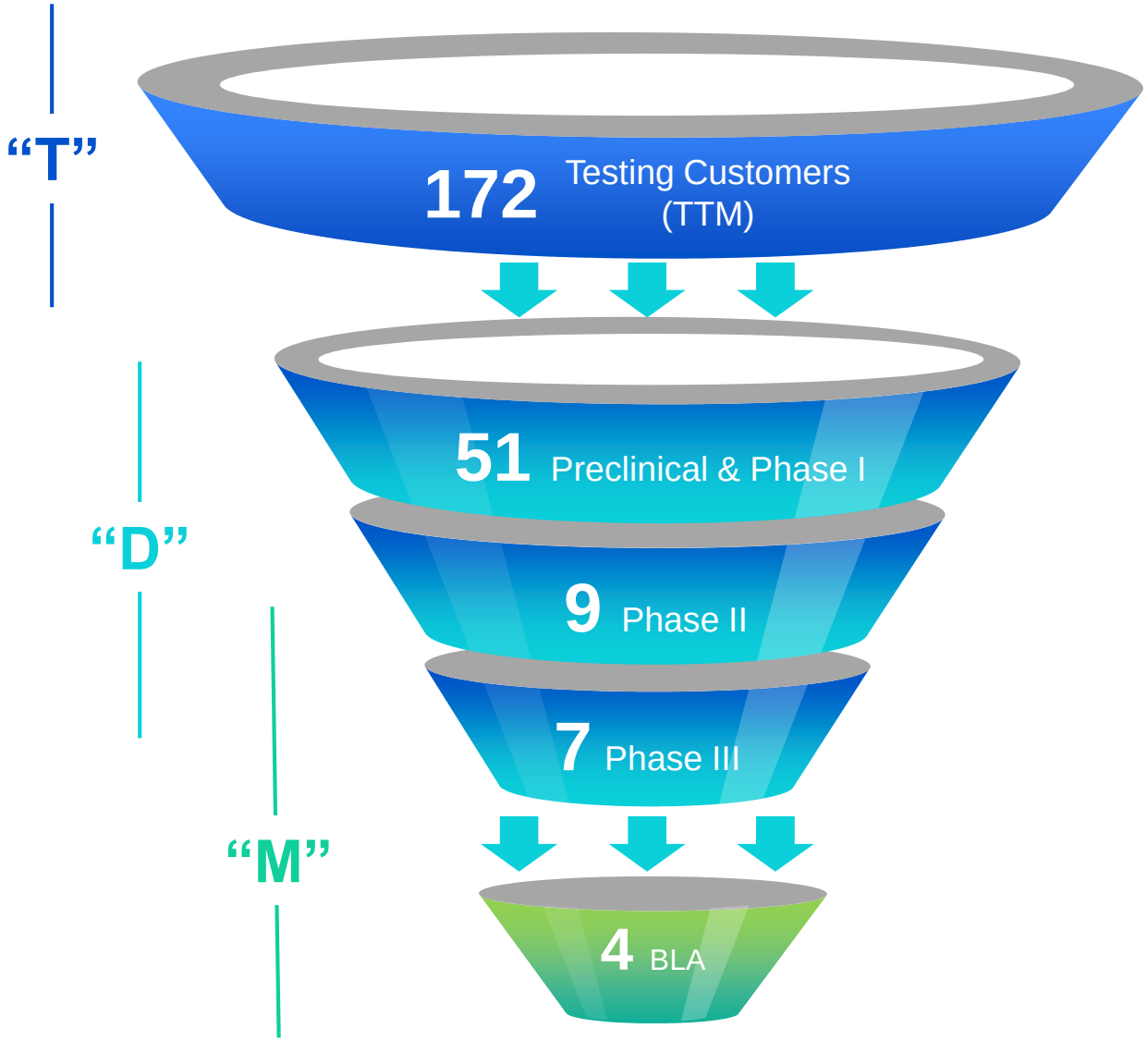
Integrated C T D M O



Business Directions

1. Engage customers at all different dev. stage and drive to T D M
2. Differentiate each site's unique competitiveness and drive cross-site collaboration to serve T D M
3. Acquire customers at "T" stage and drive through D & M.
4. Integrate effective T with D & M to enhance customer stickiness

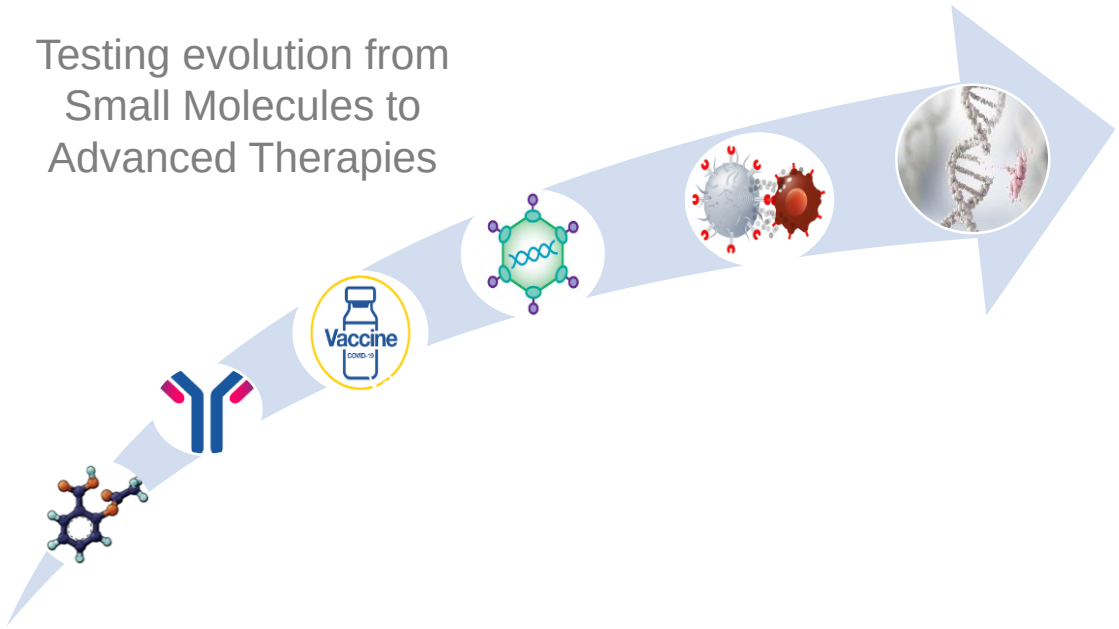
Expanding CTDMO Pipeline Drives Sustainable High Growth



WuXi ATU C“T”DMO

Testing Poses Complexity and Challenges to CGT Industry

Testing evolution from Small Molecules to Advanced Therapies



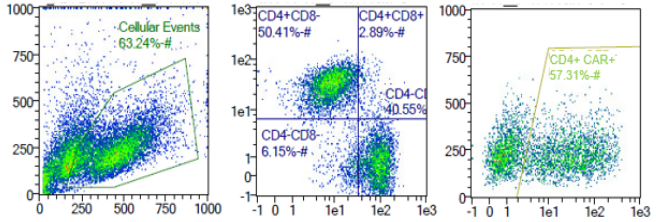
Testing Platforms for CAR-T Products

Product specific release tests:
- CAR Expression by Flow Cytometry
- Integrated Copy Number (GOI specific)

General characteristics:
- Cell Count and Viability by NC-200
- Identity by Flow Cytometry
- Cellular Impurities by Flow Cytometry

Safety Testing:
- Sterility, Endotoxin, Mycoplasma
- Replication Competent Virus

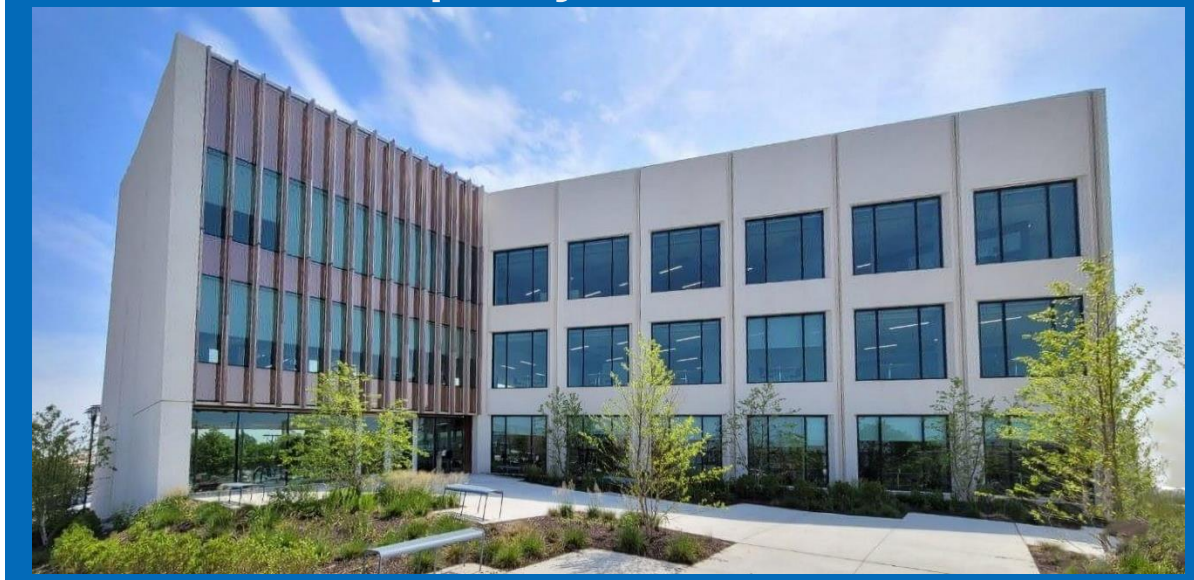
Additional Capabilities (as needed):
- Potency Assays (product specific)
- T-cell Memory Phenotype by Flow Cytometry
- T-Cell Activation by Flow Cytometry
- T-Cell Exhaustion by Flow Cytometry
- In Vitro and PCR based adventitious agents
- Residual Viral DNA



- Small Molecule Testing
  - Simple chemical/physical characterization
  - Conventional instruments in traditional QC labs
- Advanced Therapy Testing
  - Complex biologics, viral and cell characterization
  - Advanced instrumentation in development labs
  - Broadly used cell based assays (potency assays)

Ramping Up Operations at New Testing Facility in Philadelphia Site

Fully operational and licensed in 2022 w/ 3X capacity increase



WuXi ATU Opens New Facility in Philadelphia, Tripling Testing Capacity to Support Global Customers

Nov 15, 2021

New state-of-the-art advanced therapies testing laboratories provide additional capacity for the growing cell and gene therapy industry. November 15, 2021 – Philadelphia. WuXi Advanced Therapies (WuXi ATU), a wholly owned subsidiary of WuXi AppTec, announced the...

WuXi Advanced Therapies Testing Facility To Receive EMA GMP Certificate for New Philadelphia Facility

Jan 7, 2022

January 07, 2022 – Philadelphia. WuXi Advanced Therapies (WuXi ATU) announced it has successfully completed a remote European Medicines Agency (EMA) inspection for its advanced therapies testing facility at 400 Rouse Boulevard in its Philadelphia Navy Yard Campus, and...

"The newly constructed 140,000 sq. ft. testing facility provided WuXi ATU with additional space for expansion of testing operations and enabled the company to meet business demands."

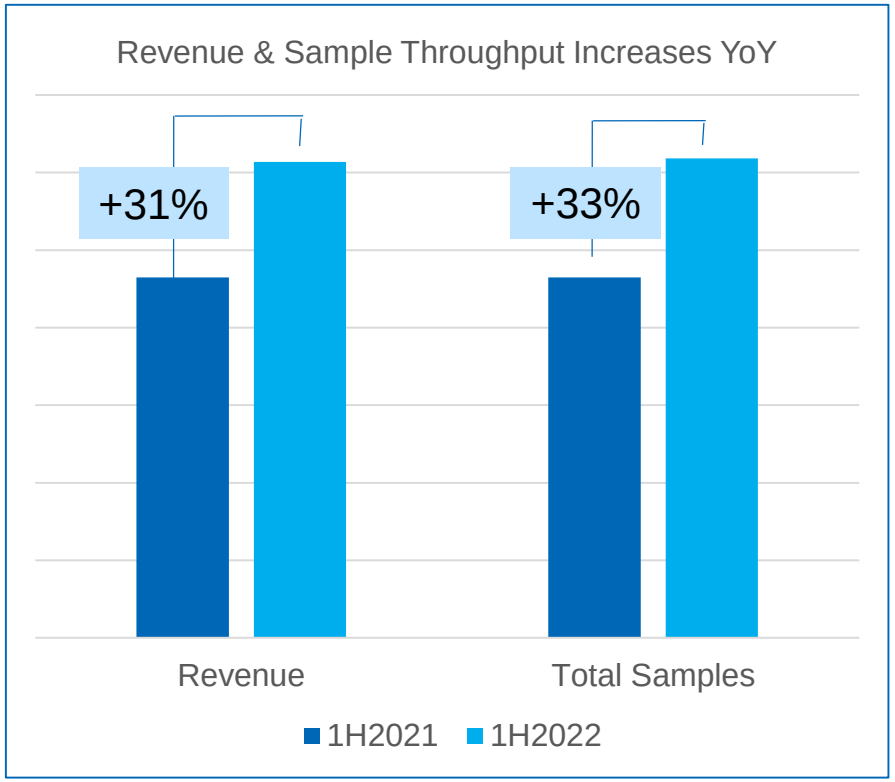
EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

"The laboratories had implemented a quality management system that was designed to meet the requirements of the PIC/S Guide to GMP." and "The quality of the work was of a high standard"

Australian Government
Department of Health
Therapeutic Goods Administration

Testing: 1H 2022 Business Performance

CGT Market Focused Testing Offerings w/ Industry-Leading "ATU Testing Panel"



Improved Quality Right First Time (>95%)

Reduced Turn around time (+17%)

172 Customers

Engagement & Training increased Retention (+30%)

Gross Margin increased (+15%)

Service Growing CGT Market with Ready-Now Testing Capacity and Industry-Leading Analytical Technical Capability

WuXi ATU CT“D”MO

WuXi ATU Manufacturing R&D Roadmap

Defining CGT Future Manufacture Standard

Manufacture or License

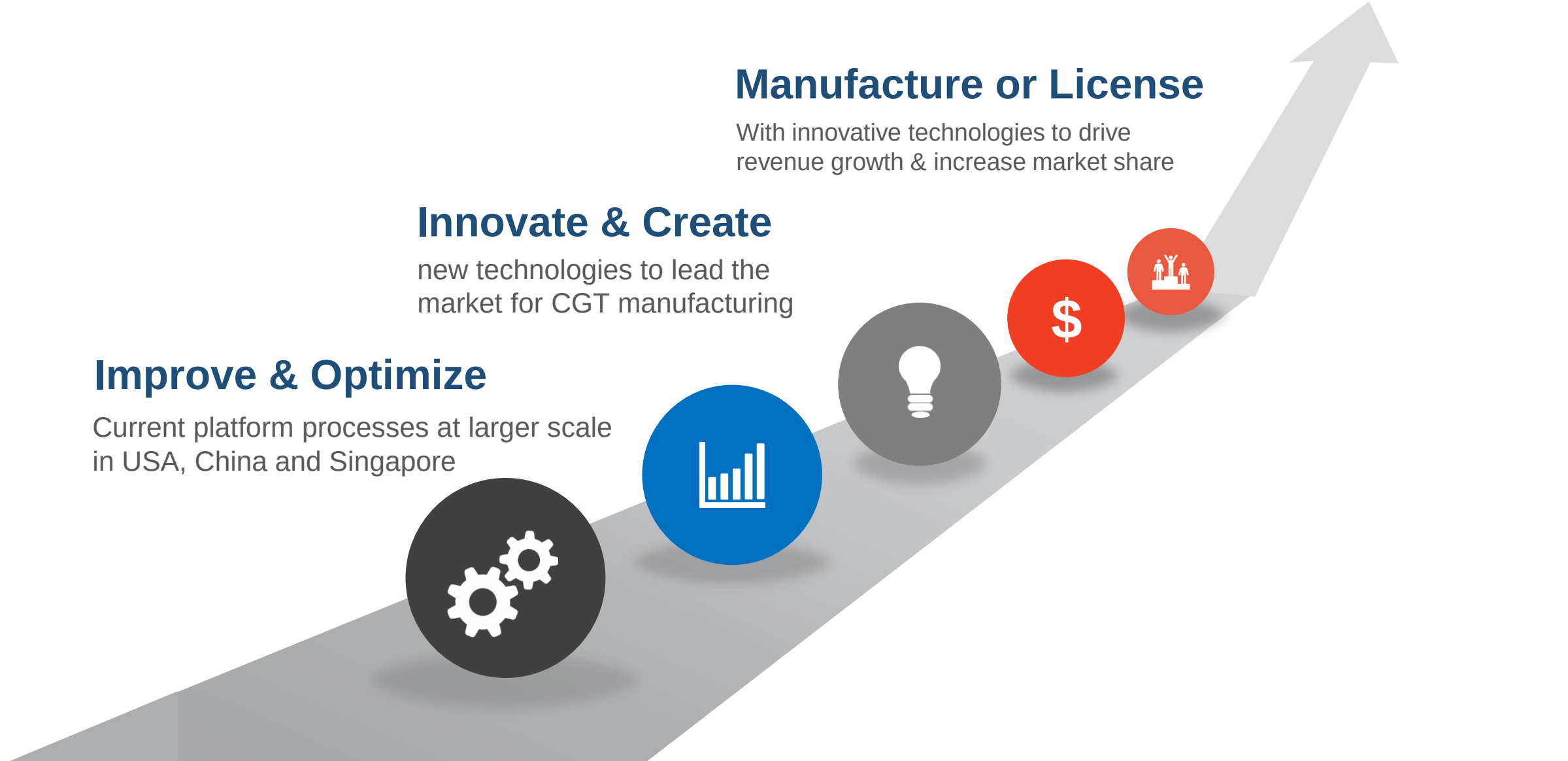
With innovative technologies to drive revenue growth & increase market share

Innovate & Create

new technologies to lead the market for CGT manufacturing

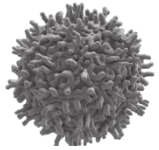
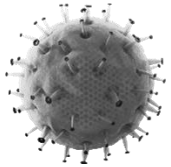
Improve & Optimize

Current platform processes at larger scale in USA, China and Singapore



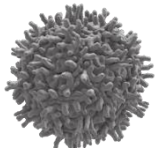
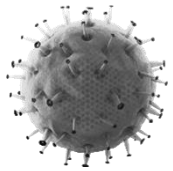
Manufacturing R&D Strategy

Improve & optimize industry standard manufacturing platforms

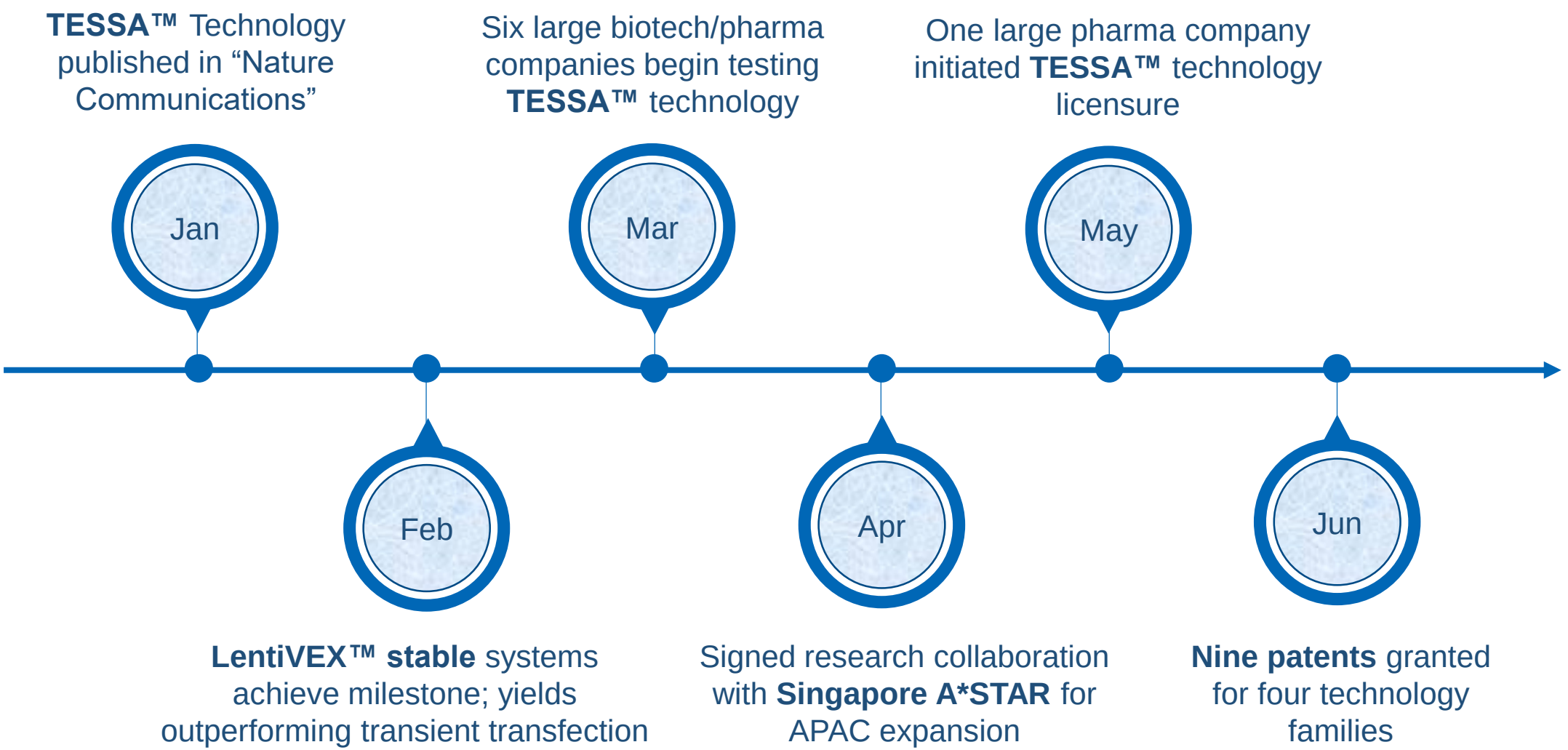

WuXi ATU Platform	AAVEX™ Plasmid Transfection Platform	LentiVEX™ Plasmid Transfection Platform	Cell Therapy (TIL & CAR-T) Platforms
R&D Objective	Optimize and standardize plasmids and VV processes to improve yield, quality and operation		Optimize processes to improve yield, quality and operation
R&D Outcome	**Industry-leading manufacturing performance with current industry standard platforms**		

Innovate & create new CGT manufacturing platforms

WuXi ATU Platform	TESSA™ Technology for AAV Vectors	LentiVEX™ Stable for Lentiviral Vectors
R&D Objective	Validate new technologies at scale and support customers transition to new platforms	
R&D Outcome	**Transforming manufacturing performance with innovative new platforms**	

1H 2022 MFG R&D Performance Highlights



The Future of Viral Vector Manufacturing Standard Is Here!

- Current viral vector manufacturing approaches require large quantities of expensive plasmids
- Current methods struggle to scale above 200L

200L Bioreactor

1000L Bioreactor

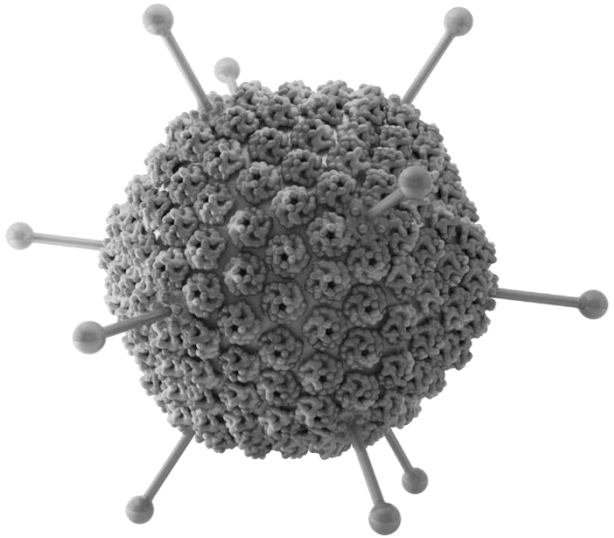
Plasmid-Free, Fully Scalable Manufacturing of *Adeno-Associated Virus (AAV)* & *Lentiviral Vectors (LVV)*

- Our technologies remove the need for plasmids to reduce the costs of manufacturing
- Our new technologies can be scaled >2000L
- Produce superior quality of viral vectors

Innovate: TESSA™ Technology

Our Vision

- Develop a fully scalable AAV manufacturing platform that improves AAV yield and quality



TESSA™ (Tetracycline enabled self silencing adenovirus)

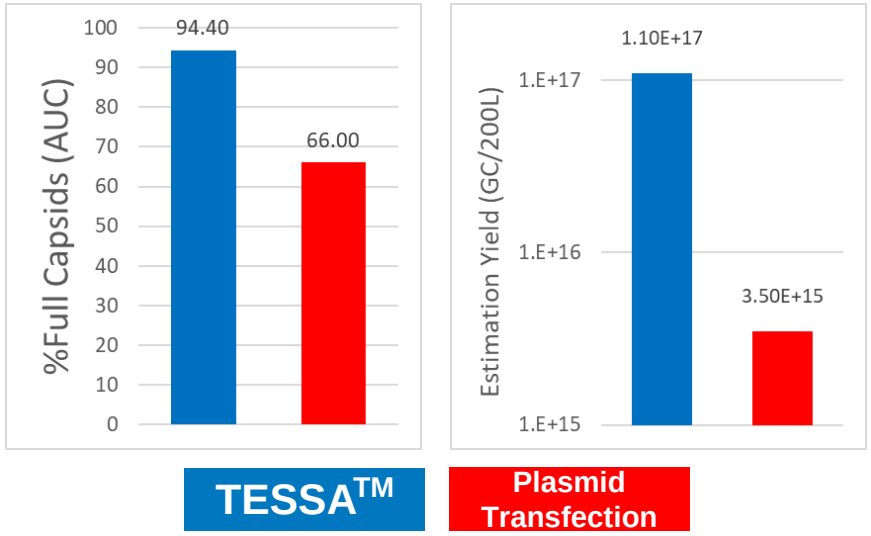
TESSA™: Transforming AAV Manufacture Through Innovation

Turning to nature: using adenovirus to make AAV

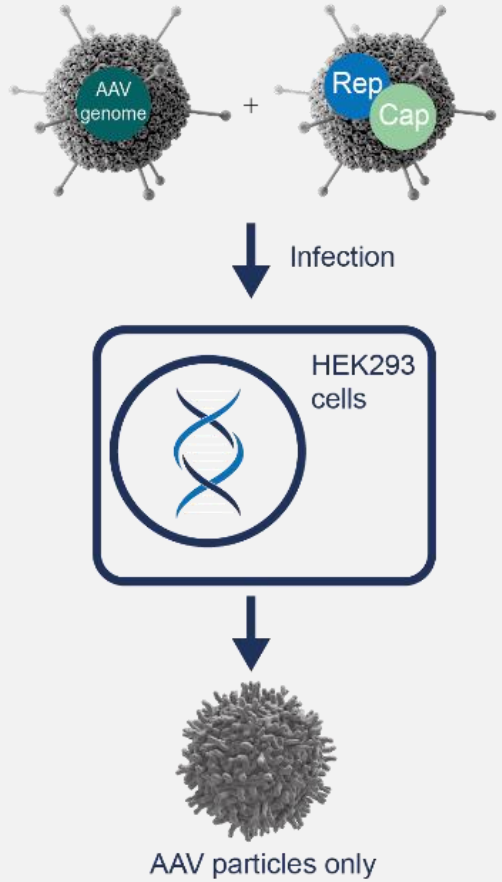
To manufacture AAV with engineered TESSA™ adenovirus to significantly increase titer and purity w/o adenovirus contamination

>95%
Full capsid

AAV6



30-40X
more AAV

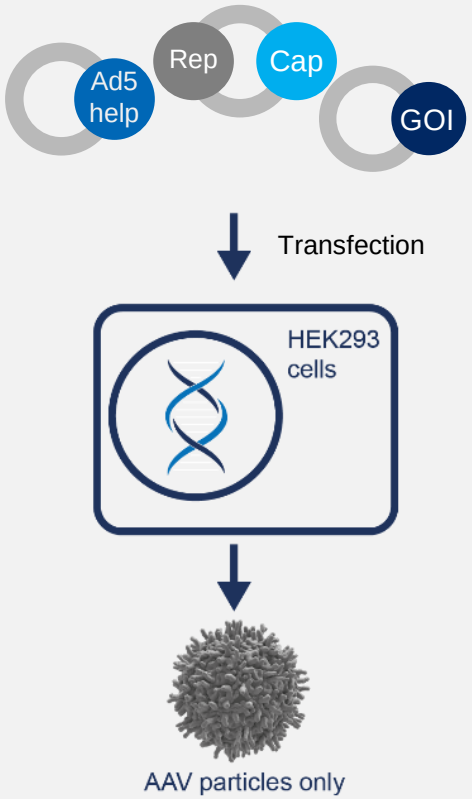


Scalability, High Yield, High Quality and Applicability

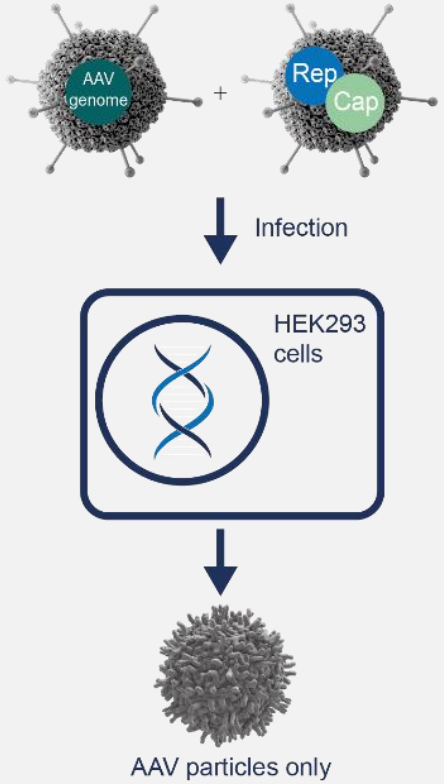
- Scaled TESSA™ AAV sera 2 and 6 to **200L** bioreactors, increasing productivity by **30-40 folds** with **full capsid >95%**
- Significant improvements also in **all other AAV sera types** at lab scale

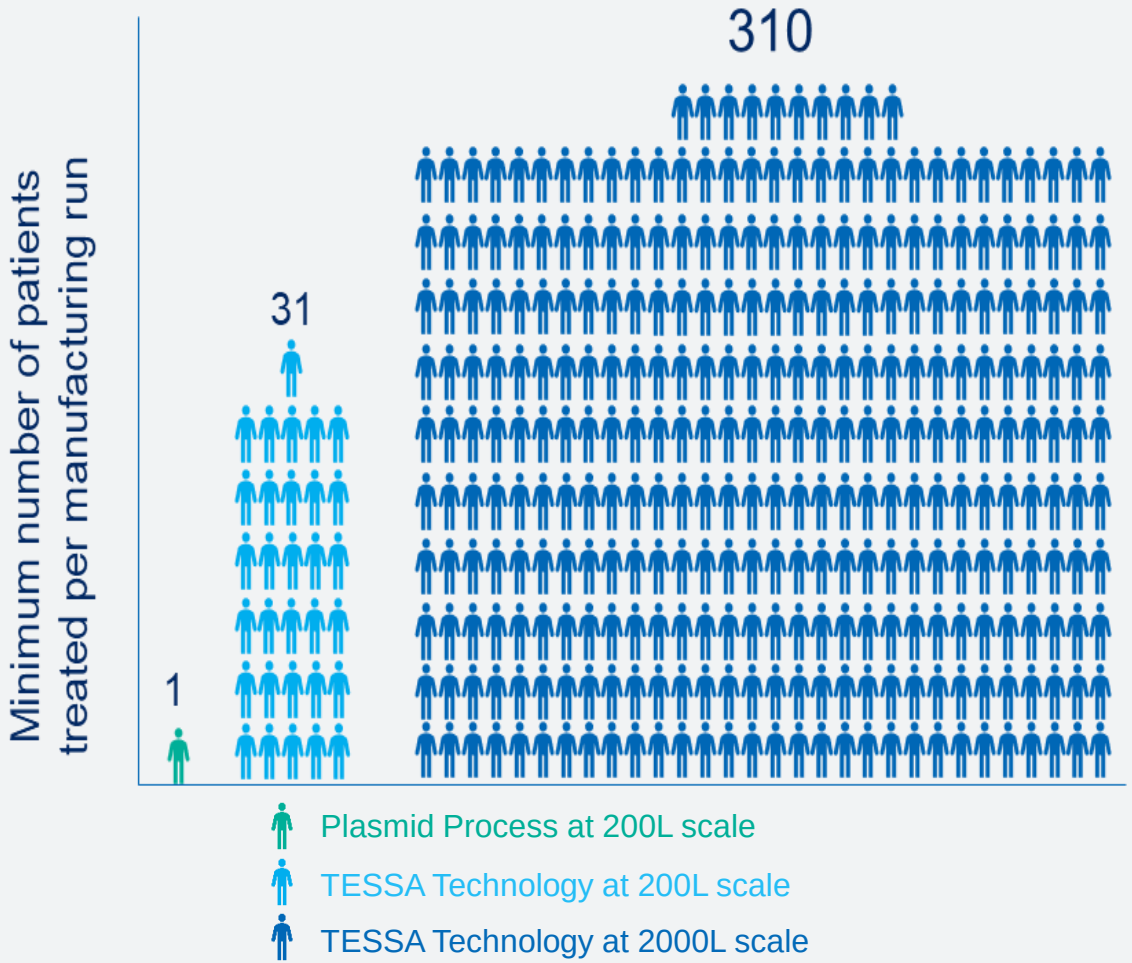
TESSA™: Enhancing Patient Access to AAV Gene Therapies

Plasmid Transfection Process



TESSA Technology





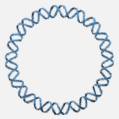
TESSA™: Significant Reduction of Costly Starting Materials

- AAV manufacturing requires input materials e.g. plasmid or TESSA™ vectors
- Producing adenovirus (TESSA™) and plasmid in the same size bioreactor is not significantly different, however, the amount of AAV that can be made using that material is very different
- The same volume of input material manufacture can enable 13-40X more AAV production

Plasmid
Transient Production

Plasmid production at 200L scale

Produces approx. 3-5g plasmid DNA



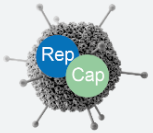
Enough to run 15-25 x 200L AAV bioreactors

AAV

Adenovirus
TESSA™

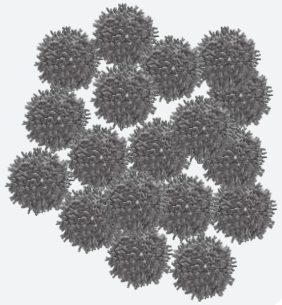
Adenovirus TESSA production at 200L scale

$2x10^{14}$ -$1x10^{15}$ TESSA Adenovirus particles



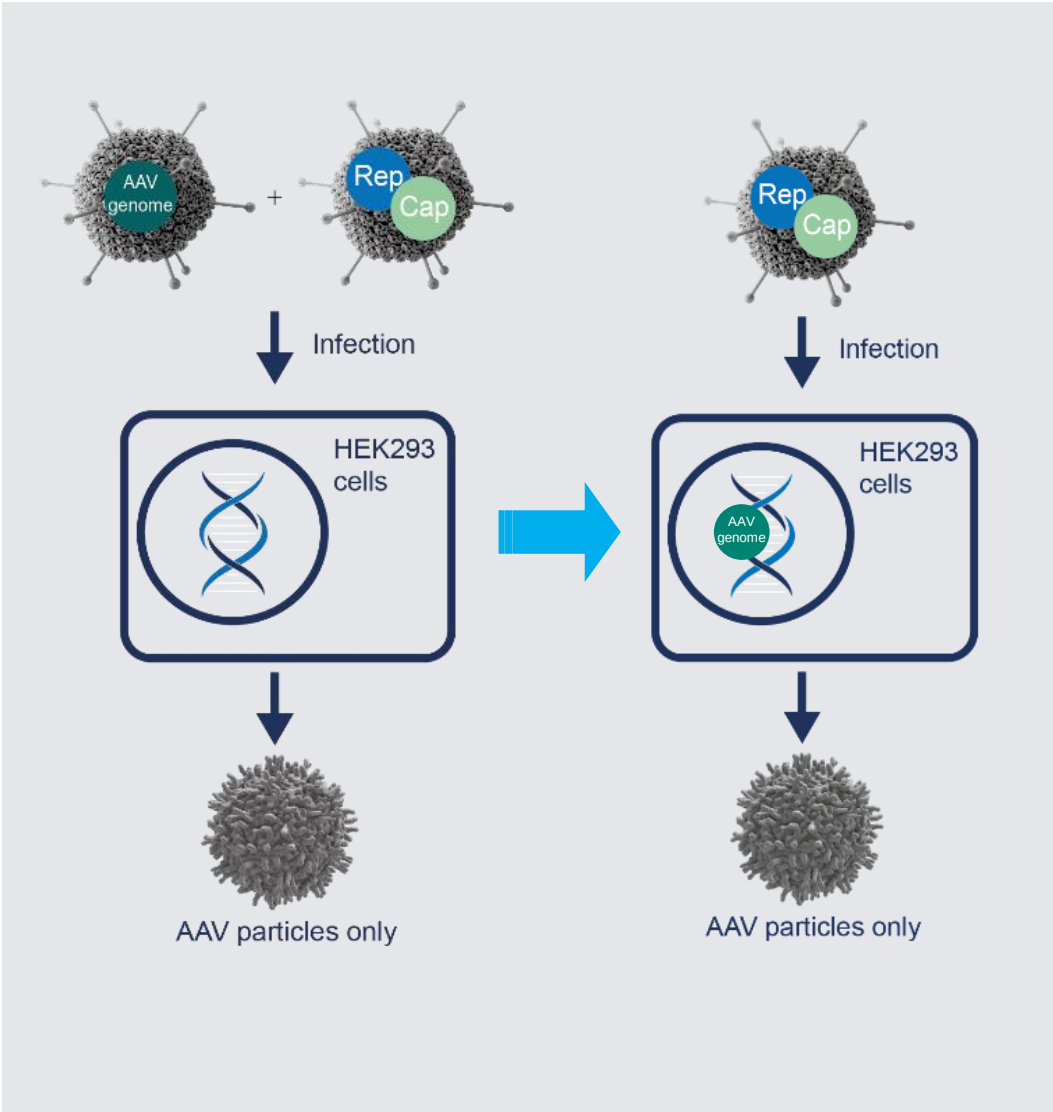
Enough to run 200-1000 x 200L AAV bioreactors!

AAV



10-40X Reduction of costly starting material demand

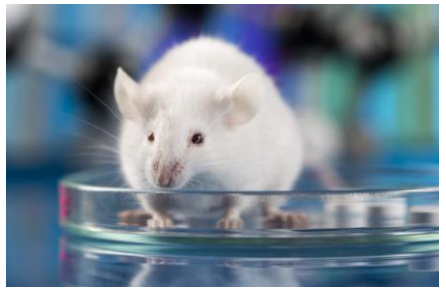
TESSA™: Improvement and Full Deployment in 2H 2022



R&D and GMP mfg. of TESSA™ AAV vectors in Oxgene, US, China and Singapore

Expedite client TESSA™ experience through ATU and client in-house evaluations

Real life demonstration in disease models



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TESSA™: Strong IP Position and Positive Market Feedback

- 28 international patent filings in 6 families to give TESSA™ technology very strong protection
- In H1 2022, new patents granted in Japan and Australia

"AAV titres were 1 log higher" – large pharma. **Licensing discussions underway**

– large Pharma

All of this was way better than helper free triple transfection in the same experiment, which gave us **26-180 times** less yield

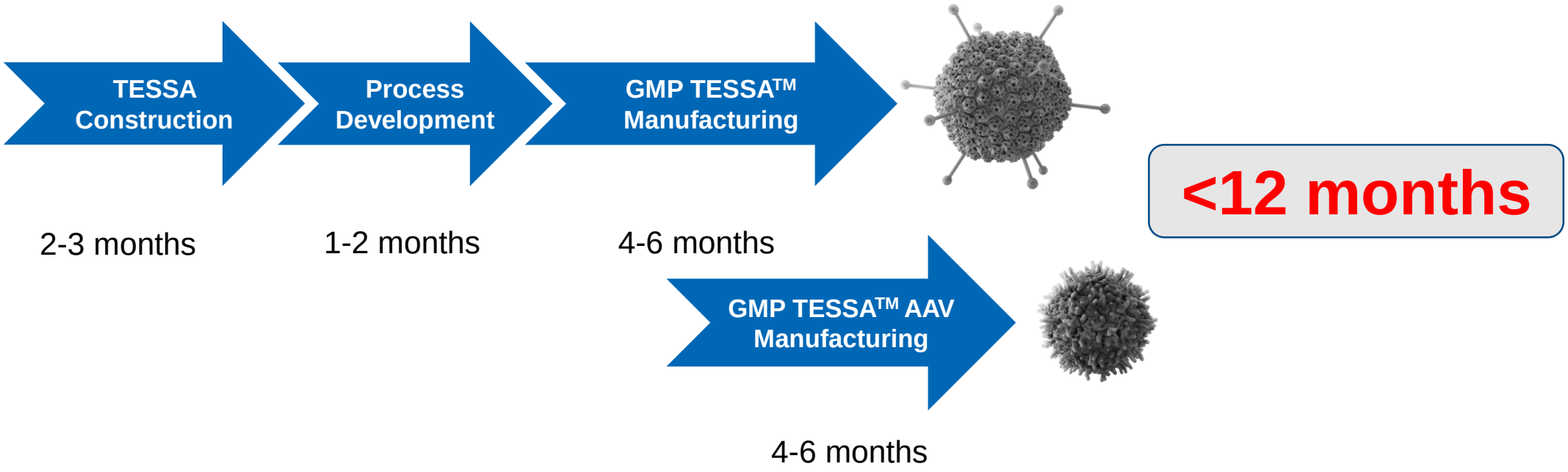
"TESSA™ enables us to test new constructs **much faster and cheaper** now, which is why we like to keep using it"

– renowned university

30 evaluation projects (17 are on-going) including 6 large biotech/pharma

TESSA™: Enabling Rapid AAV Production

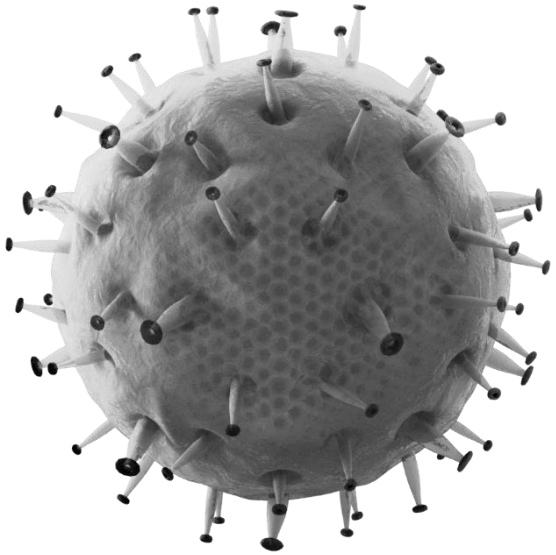
- Customers can test TESSA™ in their own laboratory with TESSA™ kits
- Customers can contract OXGENE to construct their TESSA™ GOI vectors, this can then be transitioned to GMP manufacturing
- WuXi ATU will be producing the standard TESSA™ -RepCap serotypes (1-9) as in stock reagents to be used by customers



Innovate: LentiVEX™ Stable Technology

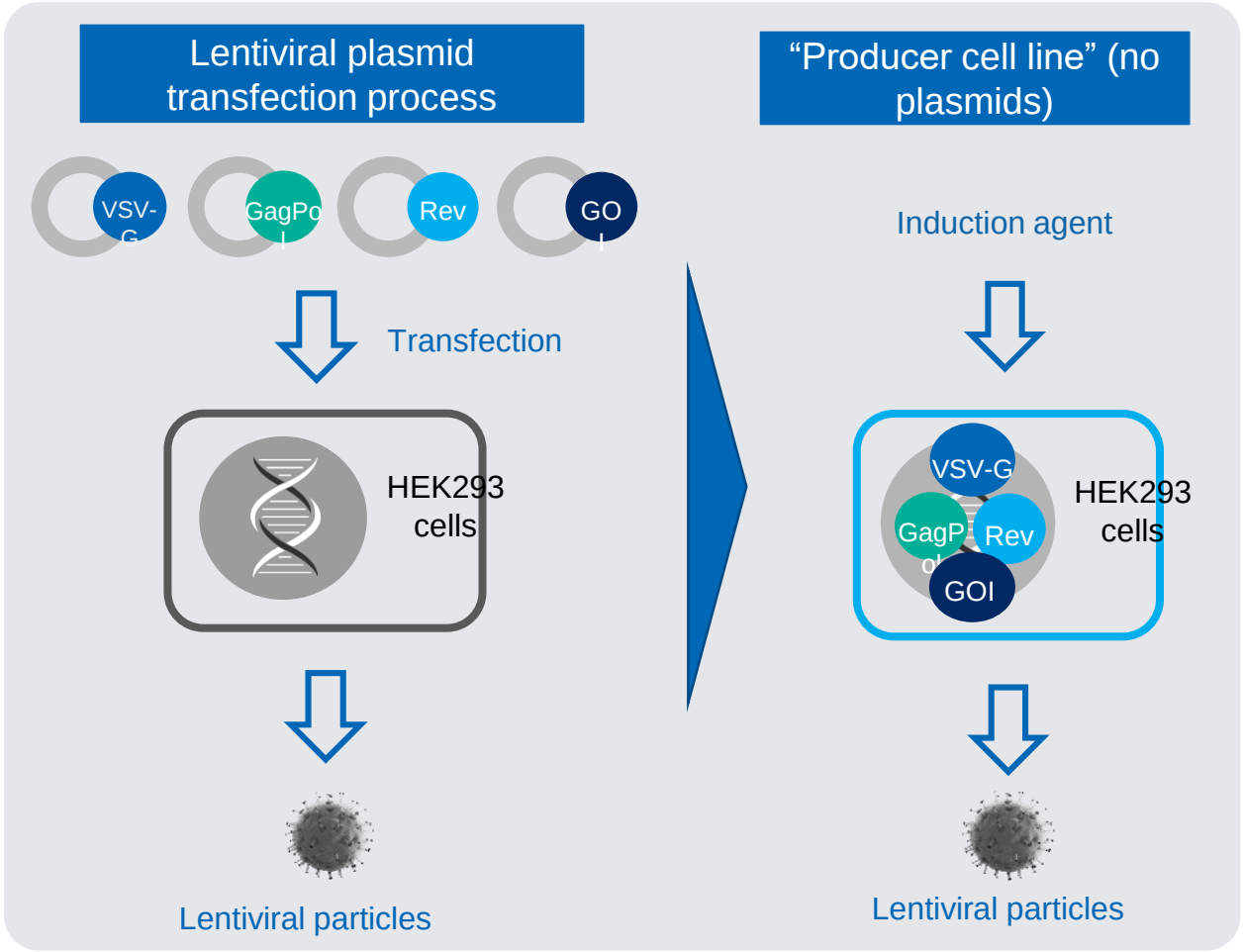
Our Vision

- Develop a lentiviral manufacturing platform that can be easily scaled and reduces the COGS

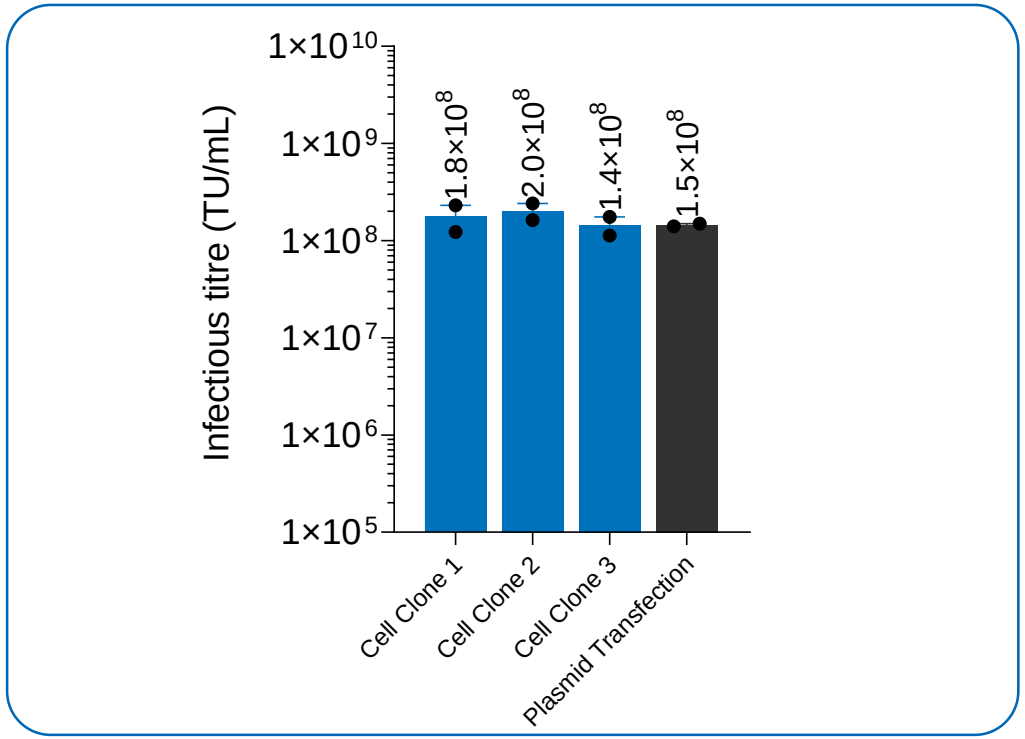


LentiVEX™ Stable Platform

The Cost-Effective, Scalable Solution to Lentiviral Vector Manufacturing



- **40-50%** of all bioreactor run costs are from lentivial plasmids transfection process
- LentiVEX™ stable producer technology requires no plasmid transfection, hence reduces COGS
- Fully scalable lentiviral manufacturing at **> 2000L**



Comparable Titers

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WuXi ATU CTD“M”O

A Global Footprint to Support Cell and Gene Therapy Testing, Development and Manufacturing

United States, Philadelphia, PA

LI1 7,600 m²

D M

CC3 5,100 m²

D M

LI2 14,000 m²

D M

Expand GM-CT

R400 13,000 m²

D T

Standalone testing laboratories

China

Huishan, Wuxi, Jiangsu 13,200 m²

D M T

Plasmids

WGQ, Shanghai 610 m²

D

Lingang, Shanghai 21,500 m²

D M T

United Kingdom

Oxford, UK 2,400 m²

D

Singapore

(D) 3,000 m² + (M) >10,000 m²

D M

T	Testing	3
D	Development	9
M	Manufacturing	6

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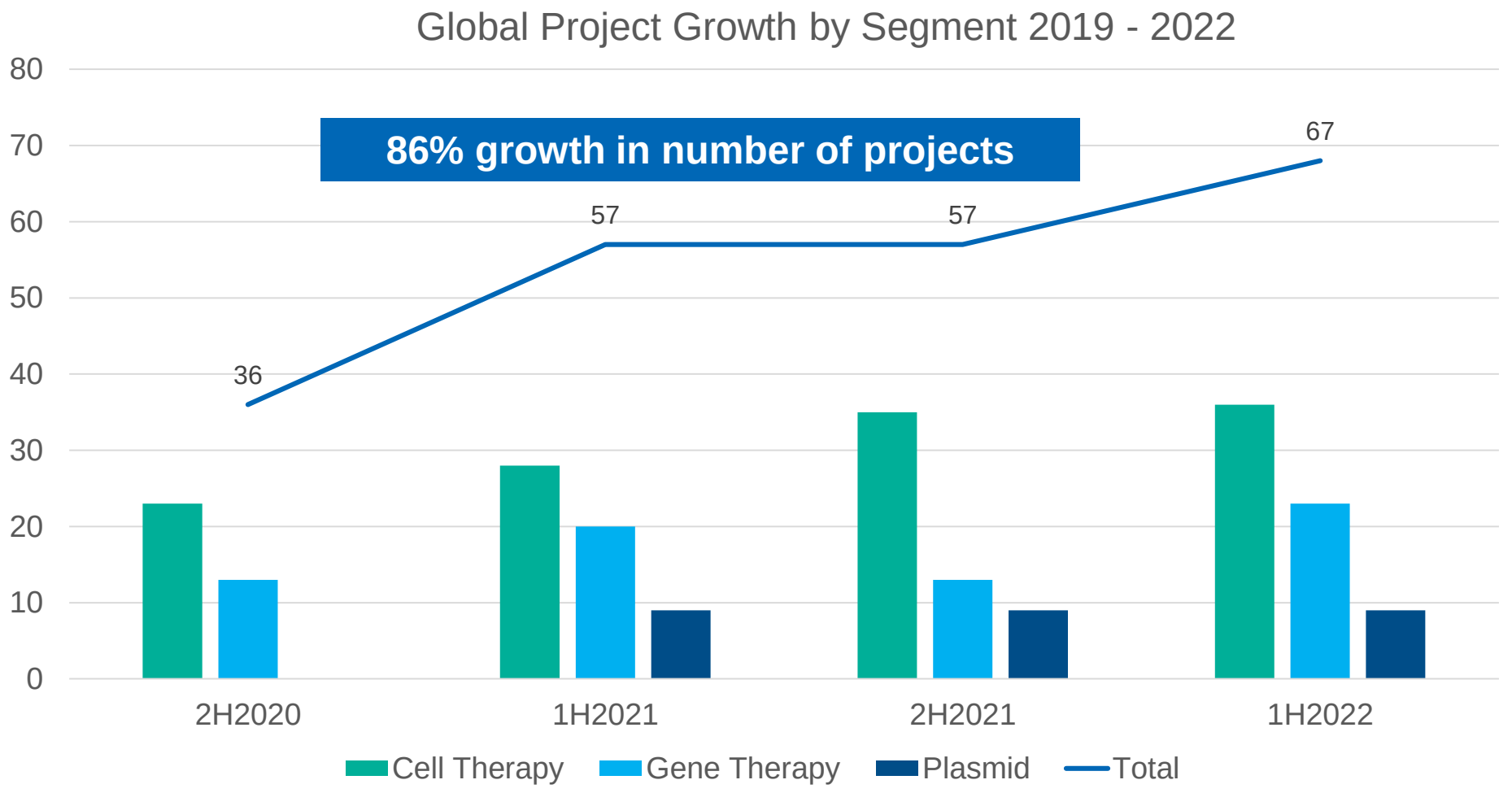
Global Manufacturing Project Growth



Ready-now manufacturing capacities in US & China

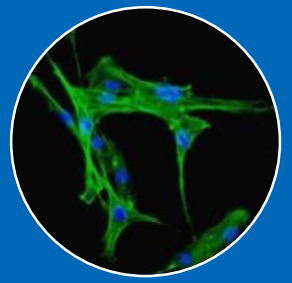
Execution of CTDMO for Commercialization

TIL: IND to BLA (US)

- ✓ **2015** initiated clinical mfg
- ✓ **400+** Clinical Batches
- ✓ **1000+** Potency Tests
- ✓ Commercial Supply at **+300** batches / year starting 2023

Plasmid & LVV: IND to BLA (CN)

- ✓ **2018** initiated clinical mfg
- ✓ **8 mon** from Sign to IND
- ✓ 100% success for 12 Clinical Plasmids and 10 Clinical Batches of LVV
- ✓ Commercial Supply starting 2023



MSC:Testing Funnel to D / M Services (US)

- ✓ **2015** initiated testing
- ✓ Potency Assay Dev with 900+ Executed Results
- ✓ **2021** initiated clinical mfg
- ✓ Commercial Supply at **80** Batches / year starting 2024

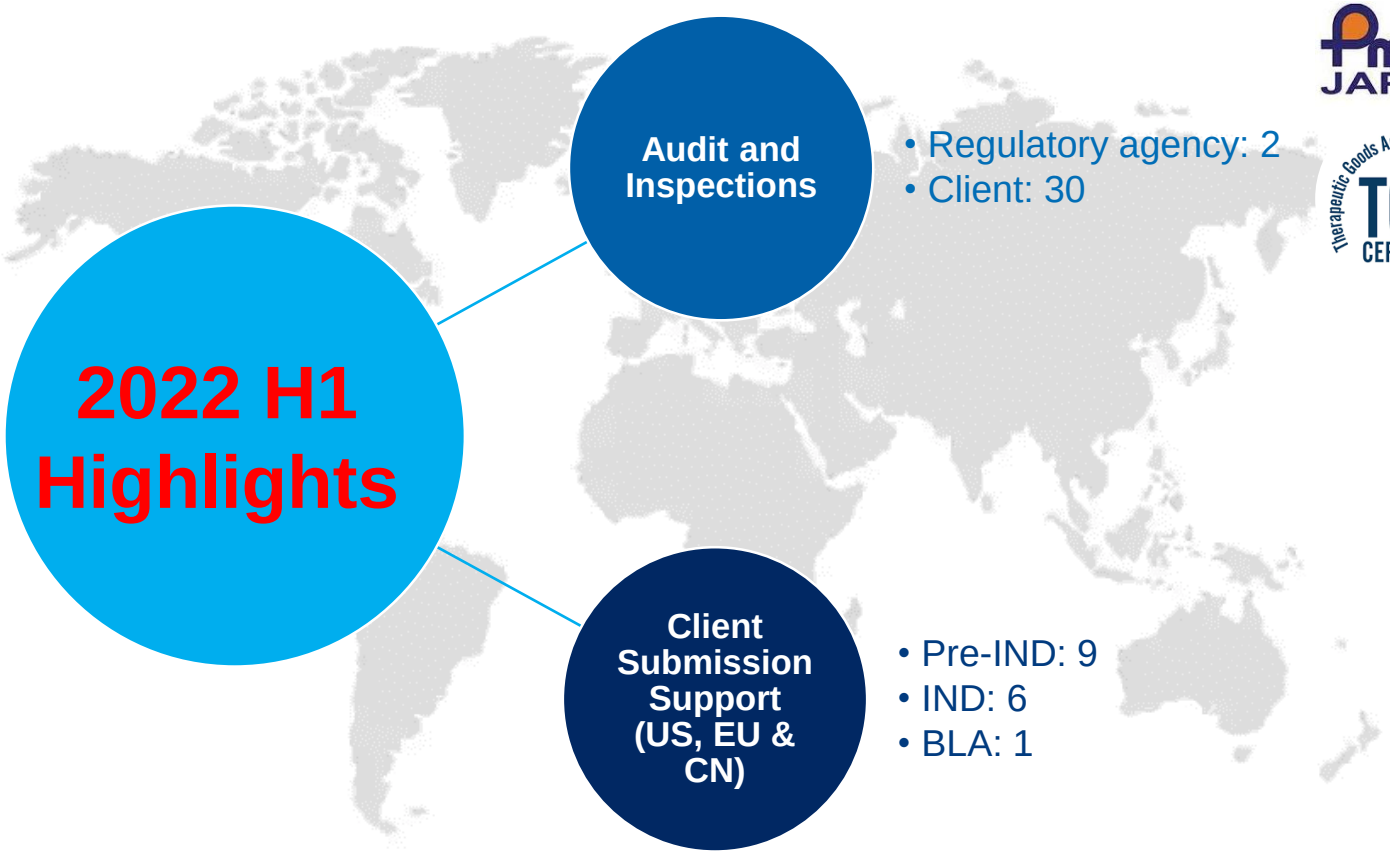
LVV: Regionally Executed, Globally Supply (US & CN)

- ✓ **2020** initiated TT
- ✓ CN: 1st Gen PPQ 2022; Commercial supply at **40-120** Batches / year starting 2023
- ✓ US: 2nd Gen PPQ 2023; Commercial supply at **30** batches / year starting 2024

Full Regulatory Support for IND/BLA Filing; PLI (Inspection) Readiness Leading to Commercialization

WuXi ATU Quality and Regulatory

Consistently Deliver Quality Compliance & Regulatory Services



FDA U.S. FOOD & DRUG ADMINISTRATION

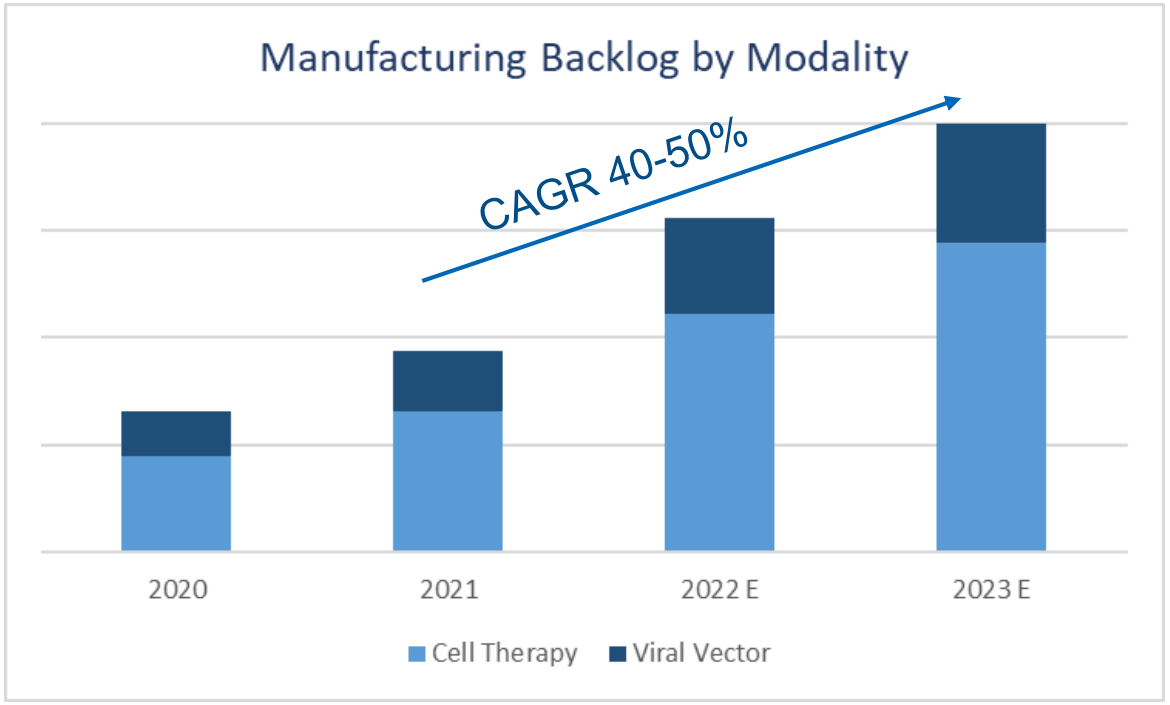
- US Philadelphia FEI #1000122198; Active Type V DMF for all four facilities
- China Huishan FEI #3017796768

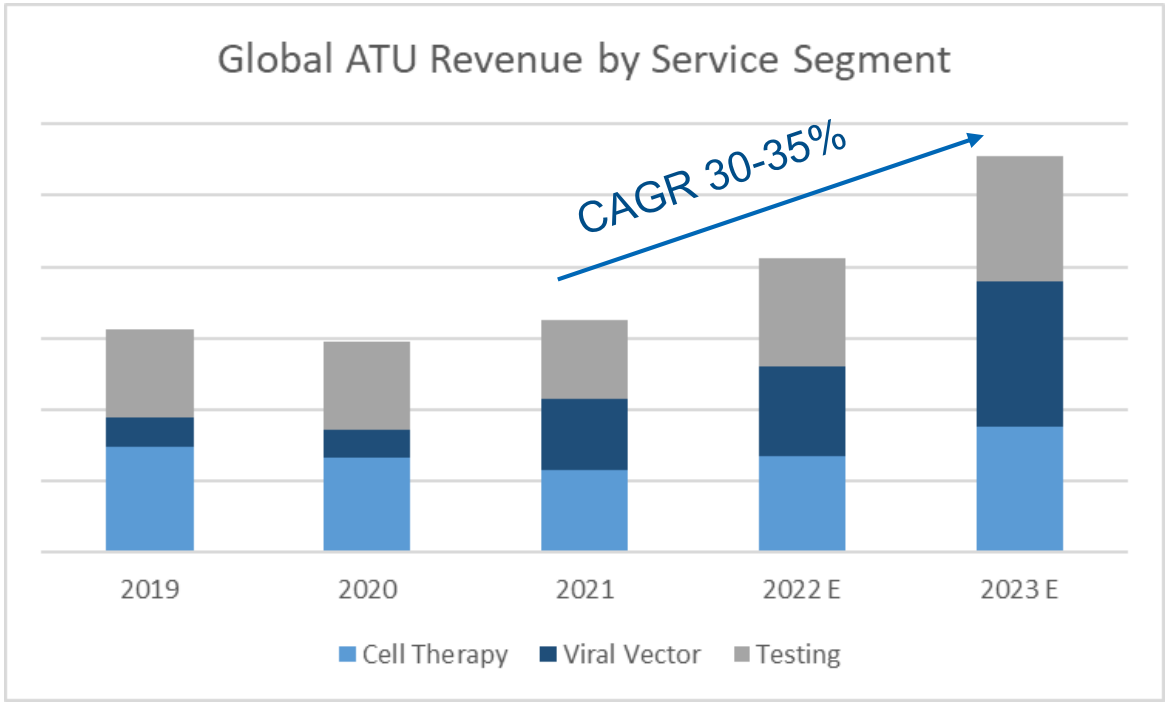
Recent Inspection/Certification

- March 2022; TGA (Australia) GMP Inspection
- December 2021; EMA GMP Inspection
- June 2021; USDA Inspection
- February 2021; ISO 17025 Re-certification
- January 2020; FDA GMP Inspection
- December 2019; EMA GMP Inspection
- March 2019; TGA (Australia) GMP Inspection
- March 2019; PMDA (Japan) GCTP Inspection

Financials

Strong Growth in CTDMO Global Backlog & Revenue





CTDMO Model & Transformational Technologies Enable Innovative CGT Companies to Clinical & Market Globally

WuXi Advanced Therapies

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01 Global CTDMO Business Model Leveraging Testing to Funnel Business to “D”&”M”

02 Transformational TESSA-AAV™ Technology Drives Future Viral Vector “M” Growth

03 LentiVEX™ Stable Technology deployed in H2/22 Will Transform LVV Manufacturing

04 Expand T D M Capabilities and Capacities in US, China, Singapore & Europe to Service Global Markets from DNA to BLA