INVESTOR R&D DAY

FRIDAY, JANUARY 28TH

9:00 AM – 12:00 PM PST

VIRTUAL ONLY

maravai LifeSciences

Revised April 2022

Welcome and Opening Remarks

Deb Hart
Senior Director,
Investor Relations

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Forward looking statements and use of non-GAAP financial measures

This presentation contains, and our officers and representatives may from time-to-time make, "forward-looking statements" within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. Investors are cautioned that statements in this presentation which are not strictly historical statements constitute forward-looking statements, including, without limitation, statements regarding our financial guidance for 2021, the strength of our business momentum and Nucleic Acid Production business, demand for CleanCap, highly-modified RNA and mRNA products, and molecular diagnostic test components, continued growth in the number of biologics drug development programs and related demand for our HCP ELISA kits, and increased demand for contract services, constitute forward-looking statements and are identified by words like "believe," "expect," "may," "will," "should," "seek," "anticipate," or "could" and similar expressions. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside of our control. Our actual results and financial condition may differ materially from those indicated in the forward-looking statements. Therefore, you should not rely on any of these forward-looking statements. Important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements include, among others, the following: Certain of our products are used by customers in the production of vaccines and therapies, some of which represent relatively new and still-developing modes of treatment. Unforeseen adverse events, negative clinical outcomes, or increased regulatory scrutiny of these vaccines and therapies and their financial cost may damage public perception of the safety, utility, or efficacy of these vaccines and therapies or other modes of treatment and may harm our customers' ability to conduct their business. Such events may negatively impact our revenue and have an adverse effect on our performance. We compete with life science, pharmaceutical and biotechnology companies who are substantially larger than we are and potentially capable of developing new approaches that could make our products, services and technology obsolete. We depend on a limited number of customers for a high percentage of our revenue. If we cannot maintain our current relationships with customers, fail to sustain recurring sources of revenue with our existing customers, or if we fail to enter into new relationships, our future operating results will be adversely affected. We rely on a limited number of suppliers or, in some cases, sole suppliers, for some of our raw materials and may not be able to find replacements or immediately transition to alternative suppliers. Such other factors as discussed throughout the "Risk Factors" section of our Annual Report on Form 10-K for the year ended December 31, 2020, as well as other documents on file with the Securities and Exchange Commission. Any forward-looking statement made by us in this presentation is based only on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation to publicly update any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

This presentation presents certain "non-GAAP Measures" as defined by the rules of the Securities Exchange Commission ("SEC") as a supplement to results presented in accordance with accounting principles generally accepted in the United States of America ("GAAP"). These non-GAAP Measures, as well as other statistical measures, including Adjusted EBITDA (as defined herein) and Adjusted EBITDA as a percentage of revenues, are presented because the Company's management believes these measures provide additional information regarding the Company's performance and because we believe they are useful to investors in evaluating operating performance compared to that of other companies in our industry. In addition, management believes that these measures are useful to assess the Company's operating performance trends because they exclude certain material non-cash items, unusual or non-recurring items that are not expected to continue in the future, and certain other items. The non-GAAP Measures are not presented in accordance with GAAP, and the Company's computation of these non-GAAP Measures may vary from those used by other companies. These measures have limitations as an analytical tool and should not be considered in isolation or as a substitute or alternative to net income or loss, operating income or loss, cash flows from operating activities, total indebtedness or any other measures of operating performance, liquidity or indebtedness derived in accordance with GAAP. A reconciliation of historical non-GAAP Measures to historical GAAP measures and additional information on the Company's use of non-GAAP financial measures is provided on page 74. Past performance may not be a reliable indicator of future results.

This presentation also contains estimates and other statistical data made by independent parties and by the Company relating to market size and growth and other data about the Company's industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. Neither the Company nor any other person makes any representation as to the accuracy or completeness of such data or undertakes any obligation to update such data after the date of this presentation. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which the Company operates are necessarily subject to a high degree of uncertainty and risk.

The trademarks included herein are the property of the owners thereof and are used for reference purposes only. Such use should not be construed as an endorsement of the products or services of Maravai LifeSciences Holdings, Inc. and its subsidiaries.

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Agenda

01 **Welcome and Opening Remarks**
Deb Hart, Senior Director, Investor Relations

02 **Maravai: Markets and Opportunity**
Carl Hull, Chief Executive Officer

03 **Panel Discussion on Cell and Gene Therapies**
- Doreen Pippen (Moderator), Vice President, Marketing
- Dr. Mike Mitchell, Skirkanich Assistant Professor of Innovation, Bioengineering, Mitchell Lab, University of Pennsylvania
- Dr. Mohamad-Gabriel Alameh, Director of Engineered mRNA and Targeted Nanomedicine Core, Weissman Lab, University of Pennsylvania

04 **Biologics Safety Testing Overview**
- Christine Dolan, Chief Operating Officer, Biologics Safety Testing
- Eric Bishop, Vice President, R&D, Cygnus Technologies®

05 **MockV® Overview**
David Cetlin, Senior Director, R&D, Cygnus Technologies®

06 **Nucleic Acid Production Overview**
Brian Neel, Chief Operating Officer, Nucleic Acid Production

07 **Q&A Session**

08 **Break (10 minutes)**

09 **CleanCap® and CleanScript® Overview**
Mike Houston, Chief Scientific Officer, TriLink BioTechnologies®

10 **Investing in Opportunities**
Kevin Herde, Executive Vice President and Chief Financial Officer

11 **Closing Remarks**
Carl Hull, Chief Executive Officer

12 **Q&A Session**

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Maravai: Markets and Opportunity

Carl Hull
Chief Executive Officer

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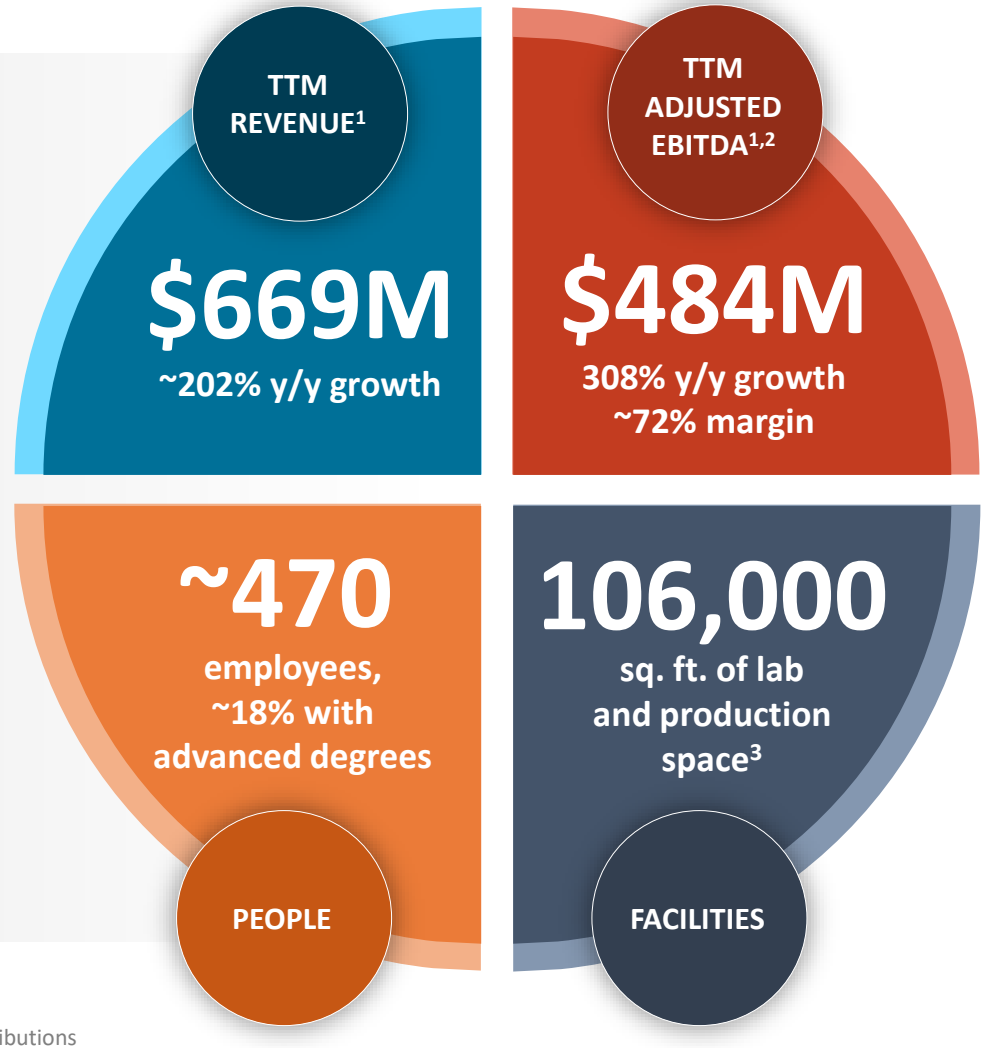
Maravai at a glance

- Customers include the top 20 global biopharmaceutical companies ranked by R&D spend
- Benefiting from a rapidly building pipeline in RNA therapeutics and vaccines
- Addressing multiple other cell and gene therapy opportunities
- Providing critical quality control and process development tools for biologics with U.S.-based production
- Serving expanding customer demand for outsourced research and production expertise



1. Results for the fourth quarter ended December 31, 2020, through the third quarter ended September 30, 2021; includes contributions from Protein Detection segment (Vector Labs)
2. Non-GAAP adjusted EBITDA, unaudited; GAAP net income to adjusted EBITDA reconciliation provided on page 75
3. After the divestiture of Vector Labs

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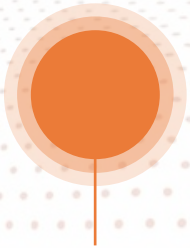
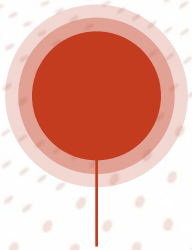
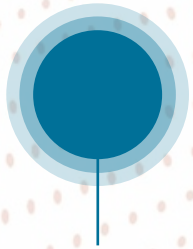
We are living in a historic era for life sciences



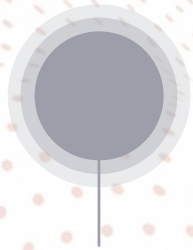
Exponential increase in volume of basic academic research



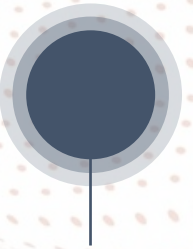
Explosion in validated targets enabled by new discovery tools



Emergence of novel therapeutic modalities and technologies



Acceleration of therapeutic development timelines and new product approvals



Unprecedented capital inflows

INNOVATION IS MOVING AT BREAKNECK SPEED

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We provide enabling solutions from discovery through to commercialization

Discovery and Research → Preclinical → Clinical → Commercialization

Nucleic Acid Production

- Oligonucleotides
- RNA Capping (CleanCap)
- mRNA
- Plasmid DNA

Biologics Safety Testing

- Host Cell Protein Detection
- Viral Clearance Prediction
- Process Related Impurity Detection
- AAE[1] and Mass Spectrometry Testing

1. AAE = Antibody Affinity Extraction™

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Maravai supplies key technologies to breakthrough end markets

			END MARKETS			
	PRIMARY BRAND	PRODUCT	mRNA VACCINES	CELL AND GENE THERAPY	BIOLOGICS AND BIOSIMILARS	MOLECULAR DIAGNOSTICS
Nucleic Acid Production	TriLink®	RNA Capping	✓ CleanCap	✓ CleanCap		
		mRNA	✓ mRNA	✓ mRNA		
		Plasmid DNA	✓ Plasmids	✓ Plasmids		
		Custom Oligonucleotides		✓ Guide RNA and Donor DNA Oligonucleotides		✓ Custom Oligonucleotides
		mRNA Raw Materials	✓ Nucleoside Triphosphates (NTPs)	✓ NTPs		
	TriLink/Glen	Oligonucleotide Synthesis Inputs	✓ NTPs	✓ NTPs		✓ Monomers, Supports, NTPs
	TriLink/MyChem	TriLink/MyChem	✓ NTPs	✓ NTPs		✓ NTPs
Biologics Safety Testing	Cygnus®	Host Cell Protein Detection Kits		✓ Kits, Reagents	✓ Kits, Reagents	
		Viral Contamination Detection		✓ MockV Kits	✓ MockV Kits	

✓ Maravai Products Offered

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Our markets are attractive and rapidly growing

$4.7B
ADDRESSABLE MARKET SIZE (2021)[1]

$15.3B
TOTAL MARKET SIZE (2021)

8%
MARKET GROWTH (2021-2024 CAGR)

7%
ADDRESSABLE MARKET GROWTH (2021-2024 CAGR)

1. Includes products, use cases and customer types relevant to Maravai

Pipelines of all novel modalities are increasing significantly

	Product Pipeline Growth[1] (%) 2019–2021	Key Development Areas
mRNA	182%	COVID-19 vaccines, other vaccines and oncology
Cell Therapy	71%	Solid and hematologic tumor oncology and rare diseases
Gene Therapy	44%	Rare genetic-based diseases and ophthalmology

1. Source – Informa report

COVID-19 pandemic accelerated and validated mRNA vaccine development

COVID-19 Currently

Proof of principle established at unprecedented commercial scale

- Prior vaccine modalities did not meet the need
- mRNA modality delivers high-speed development and potential to scale quickly
- Many companies investing in mRNA vaccine development for a multitude of indications
- Supply chain has overcome critical bottlenecks

2 YEARS FROM INITIAL SEQUENCING OF COVID-19 WHOLE GENOME IN JANUARY 2020

1st vaccine approvals December 2020 | 530M vaccine doses in U.S.[1] | 9.6B vaccine doses est. globally[2]

1. Source – Center for Disease Control COVID.CDC.gov
2. Source – World Health Organization COVID19.who.int

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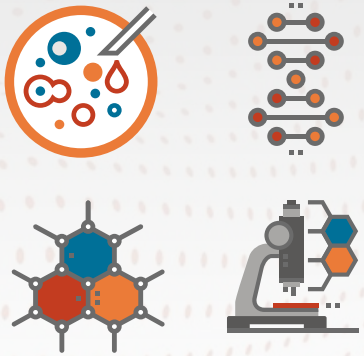
mRNA is rapidly expanding beyond COVID-19 vaccines today

Broad and Growing mRNA Therapeutic Pipelines

Broad Diversity of Disease States

Multiple Therapeutic Modalities



100-500x more material per dose than the COVID-19 vaccines

Outlook[1]

Renewed interest in developing mRNA vaccines outside of COVID-19: flu, flu+COVID-19, malaria, HIV, Zika, Ebola, shingles, Lyme disease

- **4 flu vaccines in clinic**
- **50 non-flu vaccines in clinic**
- **84 pre-clinical programs (disclosed)**

Therapeutics for: cancer, cystic fibrosis, protein replacement, cardiovascular, metabolic disorders

- **16 therapeutics in clinic**
- **63 pre-clinical programs (disclosed)**

Expect continued growth in RNA pipeline as COVID-focused R&D is replaced in coming years

1. Source – January data pulls of AdisInsights and EvaluatePharma, and September Nature Reviews Drug Discovery paper

Cell and gene therapies are the “next big thing” for the industry and Maravai

IN 2021[1]

586
companies with an asset in clinical or commercial phase

$9.5B
of R&D invested

10
distinct new product launches

$30B+
MARKET FORECAST GROWTH BY 2024[1]

- Gene editing via CRISPR Cas9 and other modalities typically use mRNA for research and clinical studies
- Next generation base editing and prime editing are also being driven by mRNA approaches
- Reprogramming of cells utilizes gene editing in the production of CarT therapeutics
- Host Cell Protein Immunoassays for quality control during clinical manufacturing of viral vectors and plasmid DNA
- Immunoassays for growth media additives and bioprocessing enzymes used in viral vector manufacturing

1. Source – Evaluate Pharma

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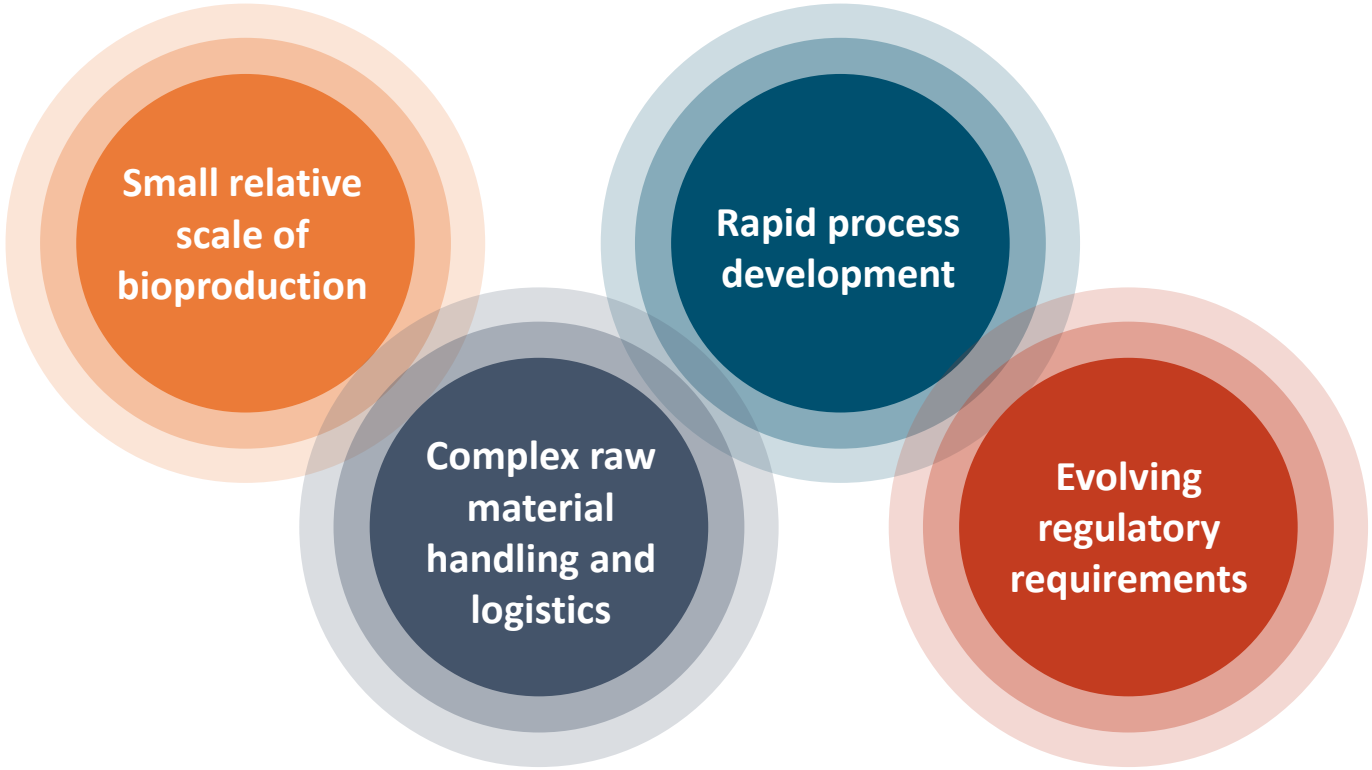
Bioproduction of mRNA and cell and gene therapies poses many challenges for the industry

CHALLENGES



Outsourced Partner Model and Fragmented Supply Chain

Pfizer Vaccine

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Where we are focused to meet the opportunity ahead

Expand Portfolio, Market Leadership and Solutions

Focused Investment in R&D

Ongoing Investments in Operations, Manufacturing and People

Innovate Alongside our Customers

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Financial flexibility allows us to make organic and inorganic investments

Organic Investments

- Technology innovation
- Process engineering
- GMP capacity
- Portfolio expansion

Inorganic Investments

- Complementary or synergistic capabilities
- Vertical integration of supply chain
- International expansion
- Enhance quality systems

What you'll learn today

01

We are playing in the right target markets with strong leadership positions and building our portfolio in high-value areas

02

There is significant opportunity for Maravai to emerge as a leading, critical supplier and solutions provider in the life sciences industry

03

We are building a strong foundation for long-term, sustainable growth by investing in our core capabilities, operations, manufacturing and people

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Panel Discussion Cell and Gene Therapies

Doreen Pippen (Moderator)
Vice President, Marketing

Panel Members

- Dr. Mike Mitchell, Skirkanich Assistant Professor of Innovation, Bioengineering, Mitchell Lab, University of Pennsylvania
- Dr. Mohamad-Gabriel Alameh, Director of Engineered mRNA and Targeted Nanomedicine Core, Weissman Lab, University of Pennsylvania

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Biologics Safety Testing

Christine Dolan
Chief Operating Officer, Biologics Safety Testing

Eric Bishop
Vice President, R&D, Cygnus Technologies

Our products are used throughout product development and commercialization

CYGNUS TECHNOLOGIES
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Discovery and Research > Preclinical > Clinical > Commercialization

Biologics Safety Testing

- Host Cell Protein Detection
- Viral Clearance Prediction
- Process Related Impurity Detection
- AAE[1] and Mass Spectrometry Testing

1. AAE = Antibody Affinity Extraction™

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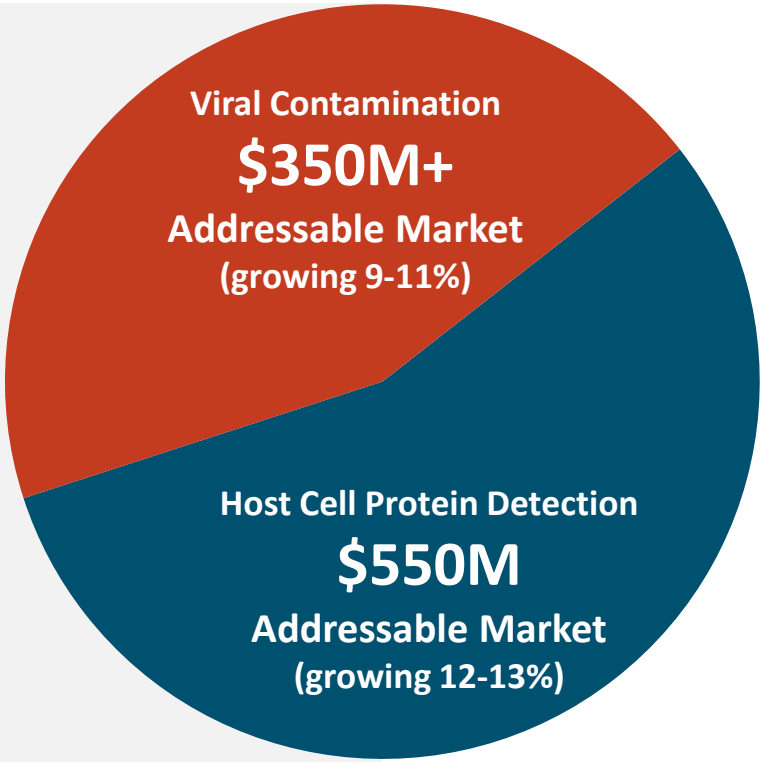
Positioned for robust growth in $900M, rapidly growing market

Concentrated on large $~900M, high-growth addressable subsegments of the biological drug product safety market

- Growth drivers included COVID-19, growing drug pipelines, growth in cell and gene therapy and regulation
- Predicted annual growth to outpace the overall product safety market



Continuous R&D program has yielded gold standard analytics for almost every expression platform used in the industry

CYGNUS TECHNOLOGIES
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- Cygnus Technologies Kits
  - 23 expression systems with 28 different kits
  - 23 different process impurities with 50 different kits

Cell lines used

Protein Therapies

Antibodies
- Mammalian
- Microbial

Other Proteins
- Mammalian
- Microbial

Cell and Gene Therapies

Cell Therapy
- Mammalian

Gene Therapy
- Human
- Insect with baculovirus

Nucleic Acids
- Microbial
- Transcribed

Vaccines

Vaccines
- Mammalian
- Insect
- Microbial

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Robust product offering spans customer continuum

CYGNUS TECHNOLOGIES
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Bioprocessing	Clinical Manufacturing	Validation	Quality Control
PRECLINICAL TO PHASE 1 CLINICAL	**PHASE 1 & PHASE 2**	**PHASE 3 TO BLA**	**COMMERCIAL MANUFACTURING**
New Protein Detection	Clinical Manufacturing	Purification Process & Analytics Validation for Late-Stage Manufacturing	Routine Quality Control
Impurities Introduced During Upstream Cell Culture and Downstream Purification Process	**Impurity Assay Development and Qualification**	**Is Generic Assay Adequate or Is Process-Specific Assay Required?**	**Assay Validation and Product Release Testing**
Process-related impurity detection is required during downstream purification to demonstrate effective impurity removal, downstream process consistency and the final drug substance purity			

Products
- Generic HCP ELISA Kits
- Host Cell DNA Kits
- Albumin ELISA Kits
- Insulin ELISA Kits
- Transferrin ELISA Kits
- Protein A Mix-N-Go™ELISA Kits
- EndonucleaseGTP® ELISA
- MockV Kits

Products
- Generic HCP ELISA Kits
- Protein A Mix-N-Go™ ELISA Kits
- EndonucleaseGTP® ELISA
- Other Bioprocess Impurity ELISA Kits
- MockV Kits

Services
- HCP antibody coverage analysis by Antibody Affinity Extraction (AAE) with 2D-PAGE and/or MS
- Assay qualification
- Sample testing by ELISA and orthogonal methods: AAE, AAE-MS™

Products
- Generic HCP ELISA Kits
- Protein A Mix-N-Go™ ELISA Kits
- EndonucleaseGTP® ELISA
- Other Impurity ELISA Kits
- MockV Kits

Services
- HCP antibody coverage analysis by AAE with 2D-PAGE and/or MS
- Assay qualification: dilution linearity, spike & recovery analysis, precision, accuracy
- Custom process-specific HCP antibody and assay development

Products
- Generic HCP ELISA Kits
- Protein A Mix-N-Go™ ELISA Kits
- EndonucleaseGTP® ELISA
- Other Impurity ELISA Kits

Services
- Custom process-specific HCP ELISA
- AAE-MS™

Maravai Products & Services

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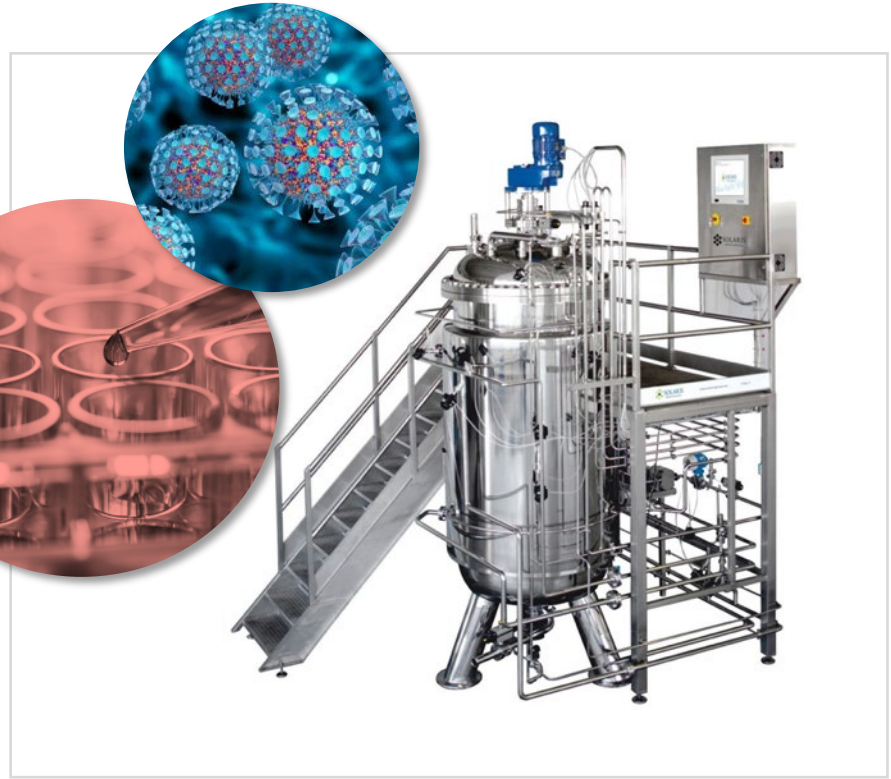
We have a strong new product pipeline

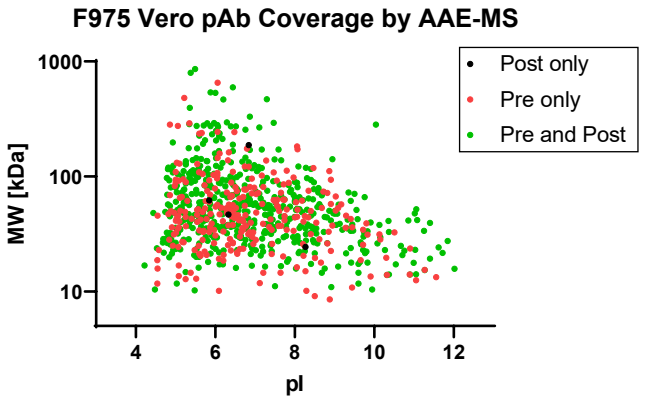
- PG13
  - novel expression platform for viral vectors for cell and gene therapies
- C1 [Myceliophthora thermophila fungi]
  - novel expression platform for economical production of vaccines and biologics
- JSR Protein A residual ligand quantification assay
- Residual AAV affinity ligand quantification assays
- Residual ligand quantification assay for novel polymer-based purification media for AAV viral vectors [Isolere Bio]



We have a commanding lead in orthogonal services

Mass Spec Provides Data Rich and Specific Coverage Analysis

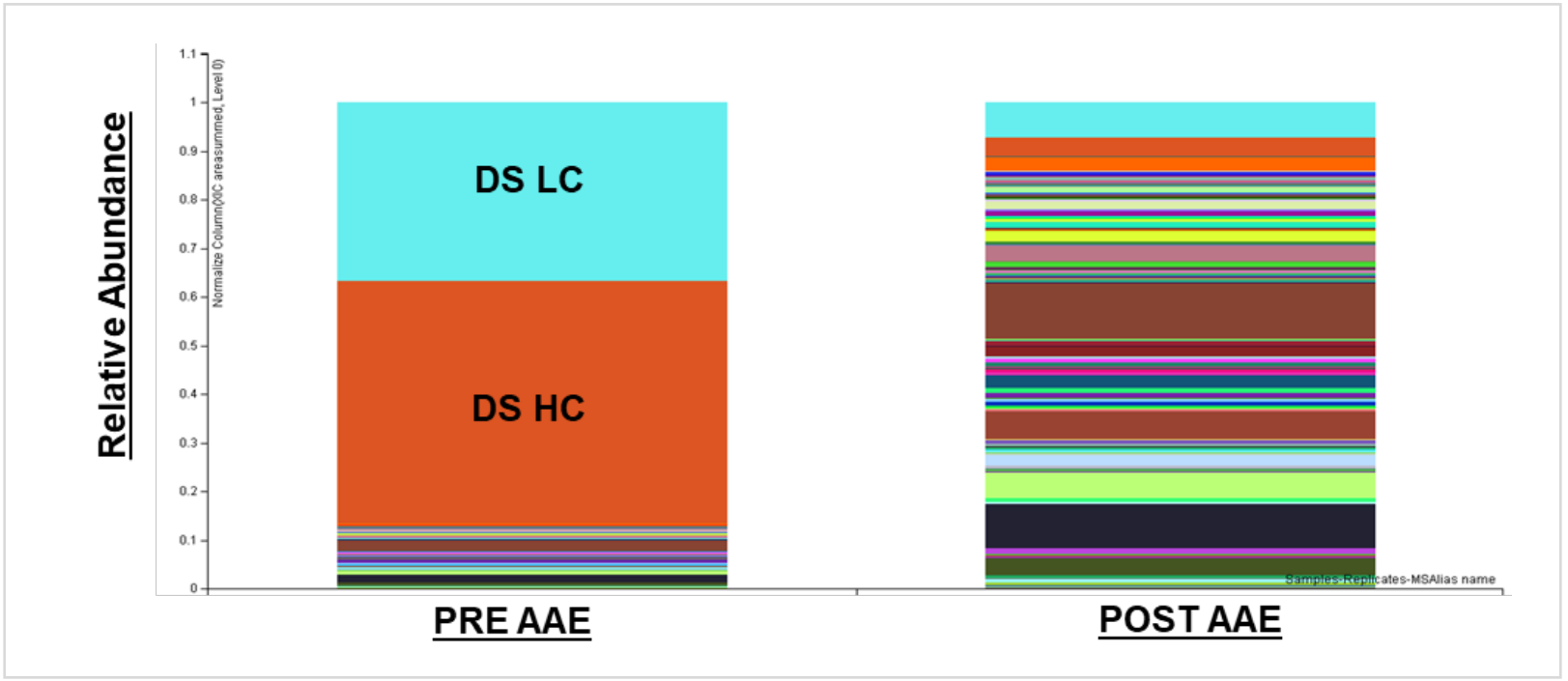
	AAE		
	PRE	POST	% Antibody Coverage
no of HCPs	819	603	74%



#	Potential High-Risk HCPs	PRE	F550	F550-1	pI	MW
1	78 kDa glucose regulated protein (BiP, HSPA5)	Y	Y	Y	5.07	72379.1
2	Actin (ACTB)	Y	Y	Y	5.29	41736.7
3	Aldose reductase related protein 2	Y	Y	Y	5.85	46698.3
4	Alpha enolase	Y	Y	Y	5.98	50011.7
5	Carboxypeptidase D	Y	Y	Y	5.3	48265.1
6	Cathepsin B (CTSB)	Y	Y	Y	5.73	35646.9
7	Cathepsin D	Y	Y	Y	6.54	44110.9
8	Cathepsin E	N	N	N	4.61	42726.4
9	Chondroitin sulfate proteoglycan 4	Y	Y	Y	5.4	252012.3
10	Clusterin	Y	Y	Y	5.58	51557.5
11	Cofilin 1	Y	Y	Y	8.22	18532.5
12	Elongation factor 1a1	Y	Y	Y	9.39	55106.0
13	Elongation factor 2	Y	Y	Y	6.41	95324.1
14	Flagellin	N	N	N	4.5	51295.0
15	Galectin 3 binding protein	Y	Y	Y	5.05	63802.2
16	Glutathione S transferase P	Y	Y	Y	7.64	23638.2
17	Glyceraldehyde 3 phosphate dehydrogenase	Y	Y	Y	8.49	35747.9
18	G-protein coupled receptor 56	Y	Y	Y	9.06	77370.5
19	Heat shock cognate 71 kDa protein	Y	Y	Y	5.23	70804.9
20	Heat shock protein HSP 90	Y	Y	Y	4.94	83166.1
21	Lipoprotein Lipase	Y	Y	Y	7.94	52900.3
22	Lysosomal protective protein	Y	Y	Y	5.64	56110.7
23	Matrix Metalloproteinase 19	Y	Y	Y	7.71	58942.0
24	Metalloproteinase inhibitor 1	Y	Y	Y	8.84	22401.0
25	Monocyte chemoattractant protein 1 (C-C motif chemokine)	Y	Y	Y	9.32	15858.4
26	Nidogen-1	Y	Y	Y	4.72	83103.0
27	Peptidyl-prolyl cis-trans isomerase	Y	Y	Y	9.59	23634.4
28	Peroxiredoxin 1	Y	Y	Y	8.22	22262.6
29	Phosphoglycerate kinase 1	Y	Y	Y	8.02	44562.5
30	Phospholipase A2 (Group XV lysosomal)	Y	Y	Y	6.16	87100.0
31	Phospholipase B like 2	Y	Y	Y	5.63	61824.4
32	Procollagen C endopeptidase enhancer 1	Y	Y	Y	8.16	50446.5
33	Procollagen lysine 2 oxoglutarate 5 dioxygenase 1	Y	Y	Y	6.46	83550.2
34	Procollagen-lysine 5-dioxygenase (PLOD3)	Y	Y	Y	6.57	83327.9
35	Protein disulfide isomerase	Y	Y	Y	5.98	56796.4
36	Pyruvate kinase	Y	Y	Y	6.88	57893.8
37	Serine protease HTRA1	Y	Y	Y	6.62	34404.5
38	SPARC	Y	Y	Y	7.1	51081.6
39	Sulfated glycoprotein 1	N	N	N	5.31	65758.2
40	T-complex protein	Y	Y	Y	5.7	60338.6
41	Thioredoxin 1	Y	Y	Y	6.94	44611.3

We have a commanding lead in orthogonal services

Identification of the HCP in Final Drug Substance



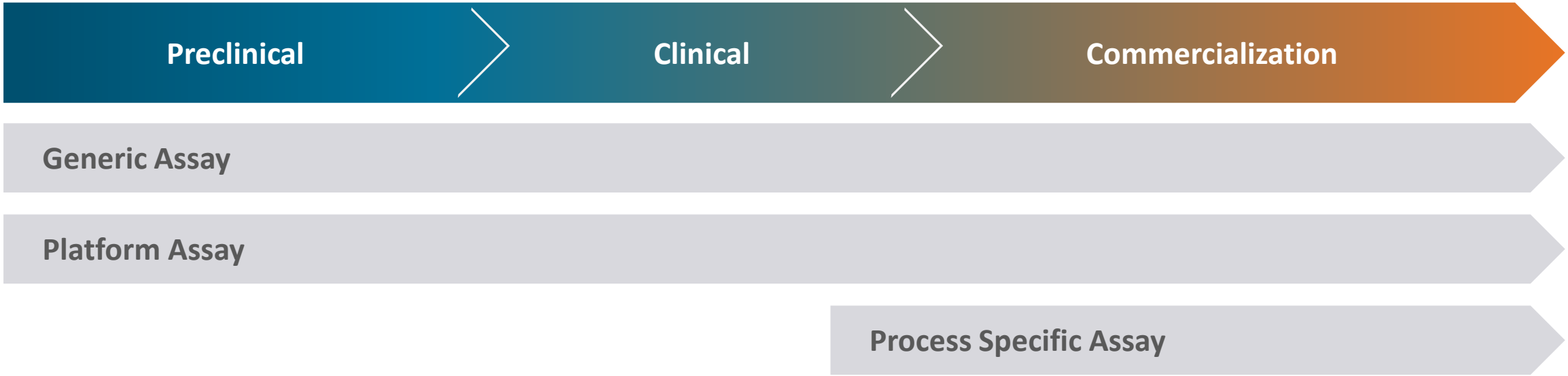
These services make our products “sticky”

Customer must prove that this generic HCP ELISA Kit is a good fit to evaluate HCPs in their production process and final DS

Once the kit/assay is qualified as a “fit-for-purpose” and becomes part of SOP

- Customer will continue to buy this kit to support their manufacturing campaigns for the lifetime of their product
- Leads to better clinical outcomes
- We do a level of service and customization

We become an extension of our biopharma customers' critical reagent capabilities



- HCP Ab
- Assay development services
- Servicing a particular custom HCP assay throughout the lifetime of the biologic

MockV

David Cetlin
Senior Director, R&D, Cygnus Technologies

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MockV represents a new leg of growth in impurity detection

CYGNUS TECHNOLOGIES
part of Maravai LifeSciences

HCP

DNA

Leachates

Process Impurities

Virus

?

No kit for measuring virus

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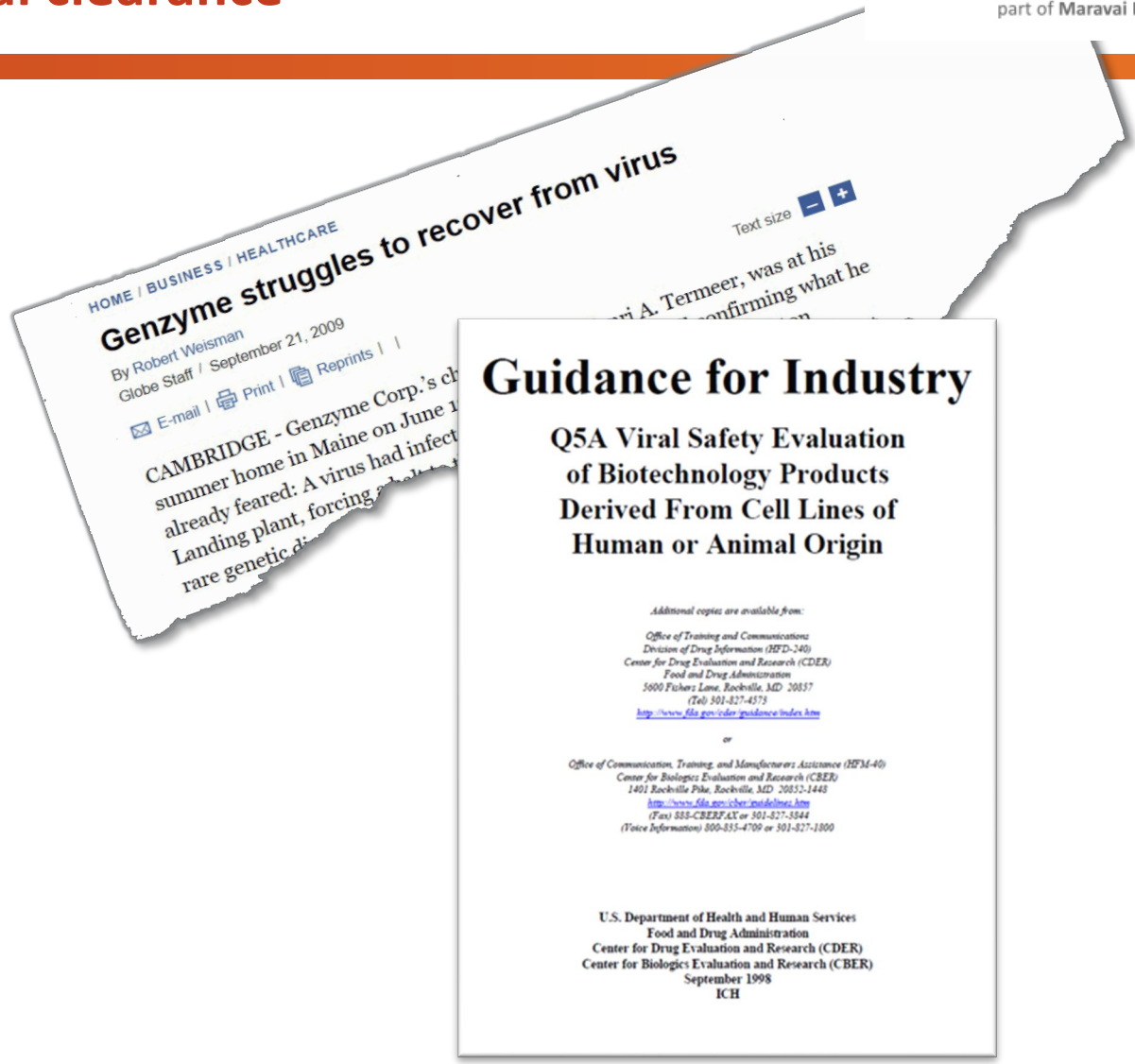
New technologies are needed for viral clearance

- Viral contaminations during biopharmaceutical production have occurred
- Regulatory agencies require proof of viral clearance before clinical (pre-phase 1) and commercial (post-phase 3) approval
- Spiking studies are required to validate
  - Live mammalian virus
  - Specialized facility
- Panel of viruses typically used for mammalian cell process (ex. CHO): XMuLV, MVM, Reo3, PRV



Viral clearance spiking studies are expensive and there is risk of failure

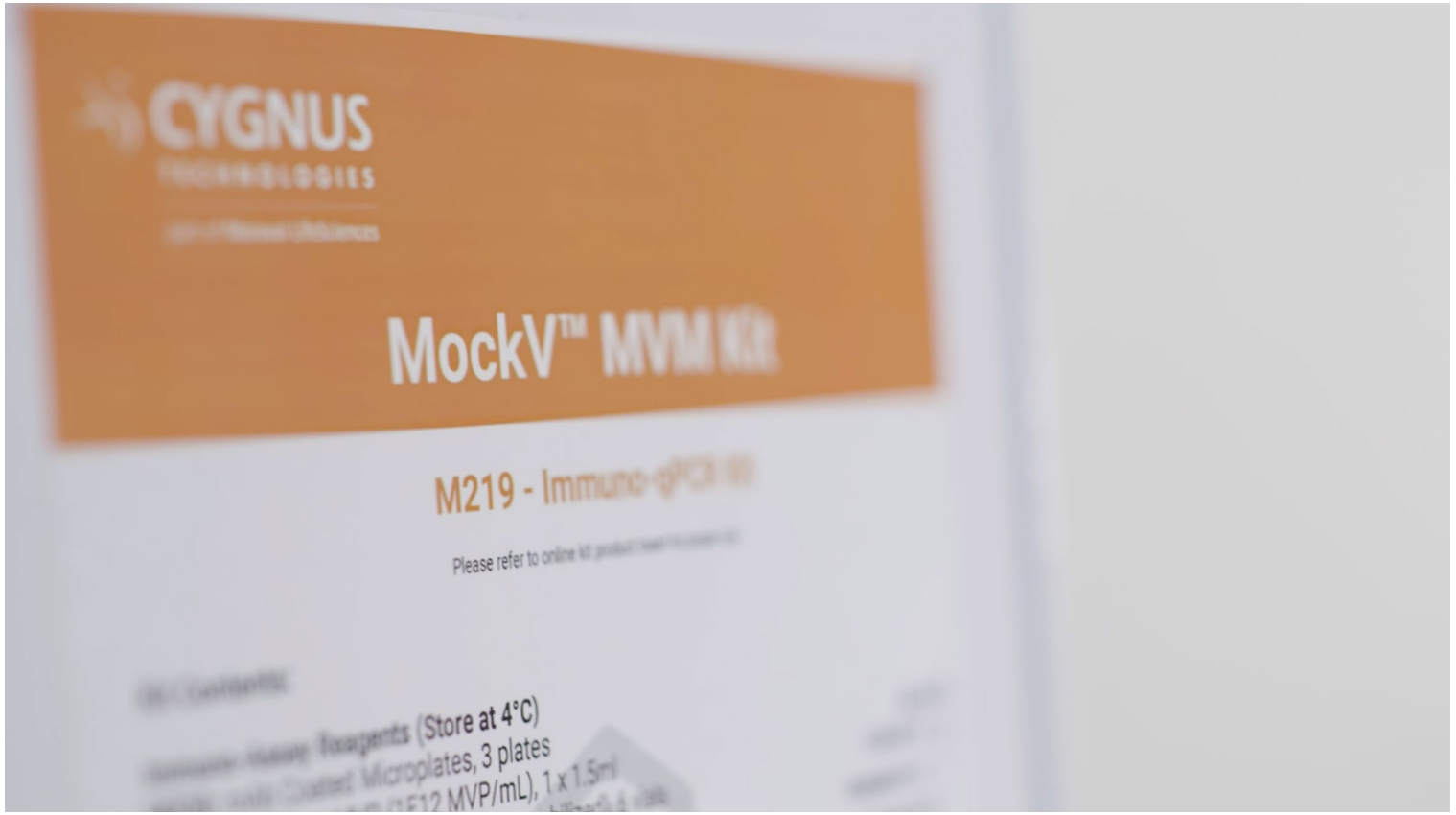
- CRO led (on-site at CRO)
- BSL-2/3
- Costs $100K - $500K
- One month planning + one month for results

MockV solves these problems

- Replaces live virus with non-infectious Mock Virus Particles (MVP)
  - MVPs mimic the physio-chemical characteristics of the live virus
  - Differentiated approach protected by U.S. and global patents
- Kits include all components necessary to perform ~10 viral clearance tests
- Different kits that model different viruses

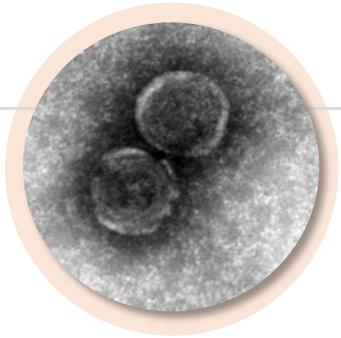
Method	Cost/Experiment	Testing Environment	Analysis Duration
Live Viral Clearance Spiking Study	$2,000 - $10,000	BSL-2 (on-site at CRO)	3-4 weeks
MockV MVM Kit Spiking Study	$400-$1,000	BSL-1 (in-house at biotech company)	1 day

Our customers validate the value of our technology

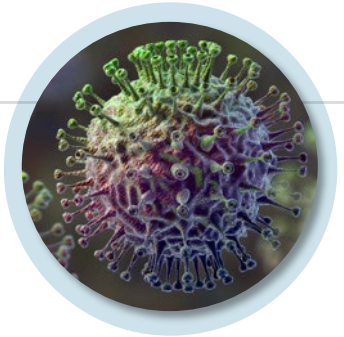


We have a strong new product pipeline

1st Gen MockV MVM Kit
(Commercially available since 2019)

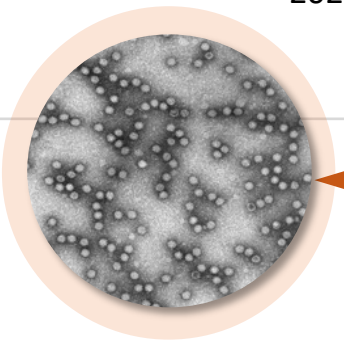


MockV RVLP Kit
(anticipated release in Q2 2022)

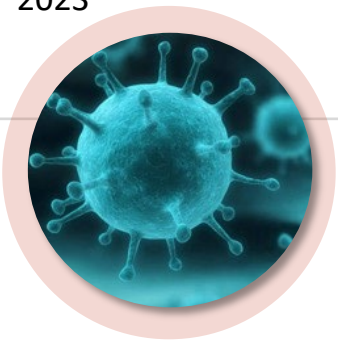


4th MockV Kit (TBD)
(anticipated release in Q2 2025)

2022 2023 2024 2025



2nd Gen MockV MVM Kit
(anticipated release in Q2 2022)



3rd MockV Kit (TBD)
(anticipated release in Q1 2024)

MockV will be a solid contributor to Biologics Safety Testing revenues in the near and long term

CYGNUS TECHNOLOGIES
part of Maravai LifeSciences

- Addresses an unmet need in the biopharmaceutical process development industry
- Underlying technology
  - non-infectious surrogates
  - is patent protected
- Rich product pipeline of kits are being developed and commercialized

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Nucleic Acid Production

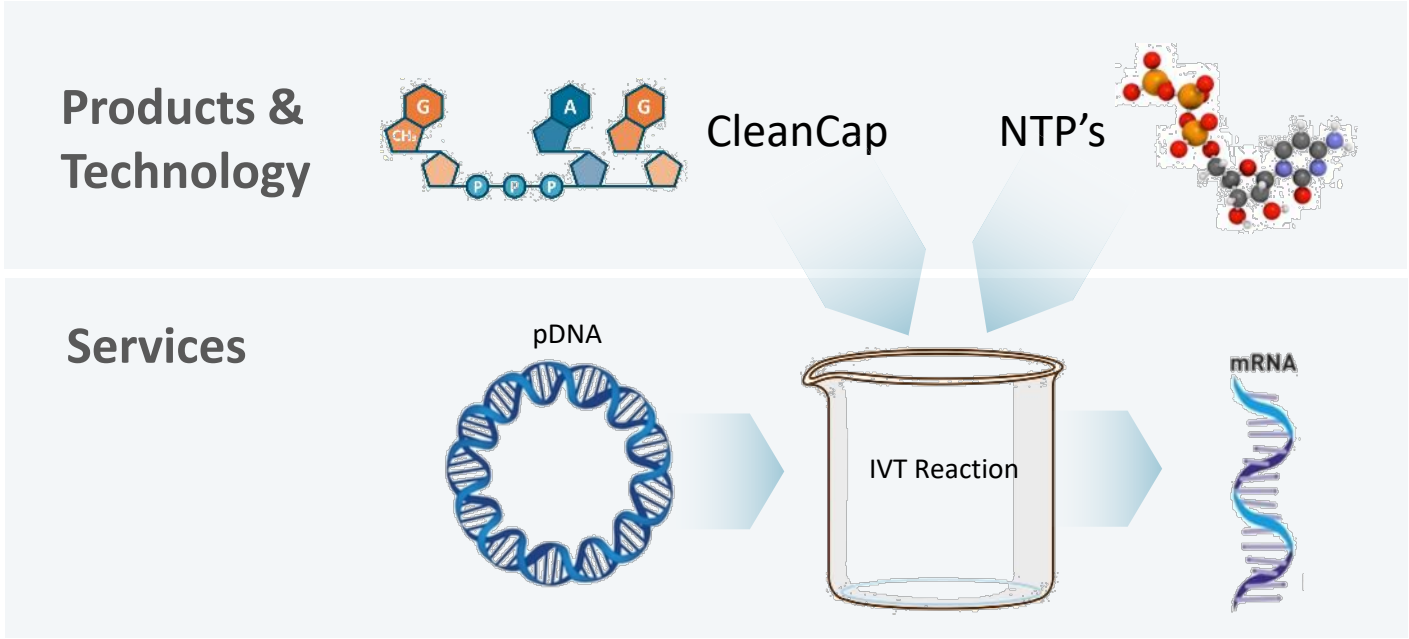
Brian Neel
Chief Operating Officer, Nucleic Acid Production

maravai LifeSciences

Maravai offers critical mRNA technology, products and services to advance medicine

TriLink is a pioneer in the innovation, development, scaleup and manufacturing of mRNA

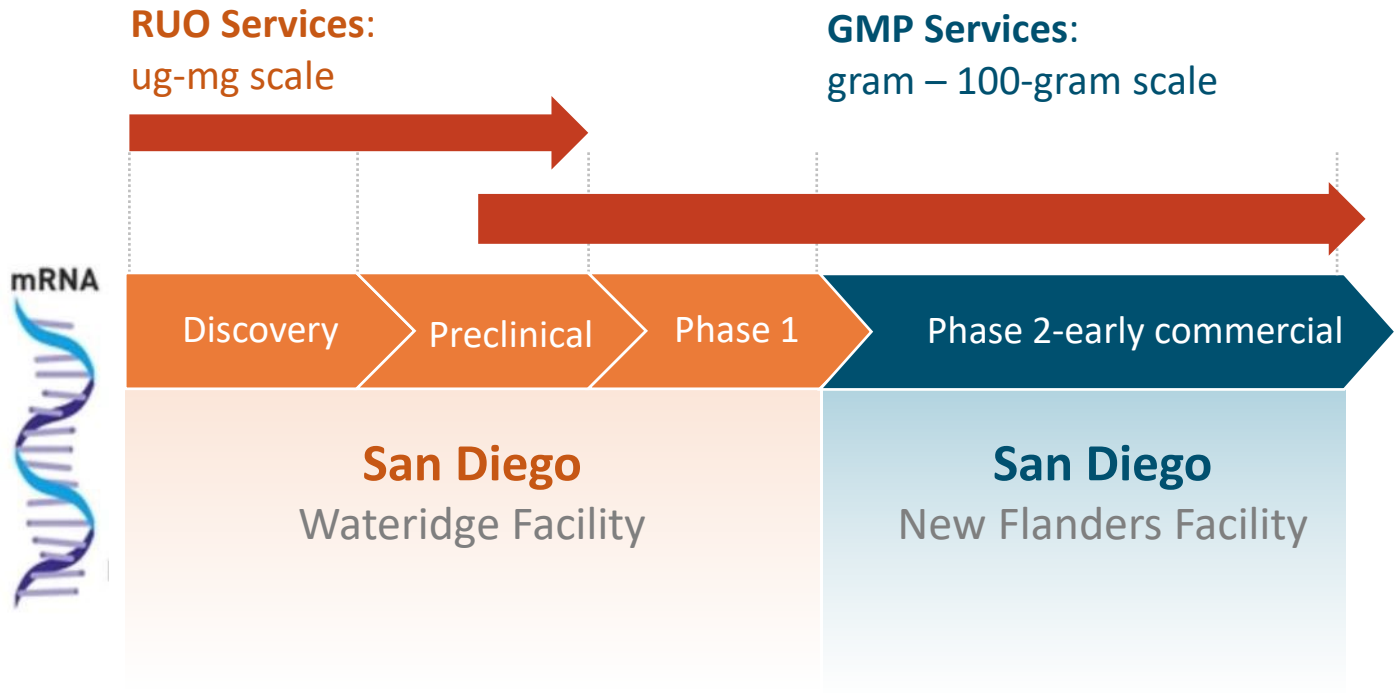
- Capture most customers at the development stage and focus on CleanCap technology adoption
- Serve the mRNA industry as a key partner in the discovery and clinical development process
- 85% of our 500+ mRNA services' customers utilize our proprietary CleanCap technology



Our services enable and accelerate mRNA discovery and development

TriLink specializes in advancing our customer mRNA programs into the clinic

- Over $75M invested in the San Diego Wateridge facility 2019-2021
- Our new Flanders facility will focus on GMP mRNA services and products and will open in 2022
- We are investing in development to specialize in product quality, engineering/scaling and products



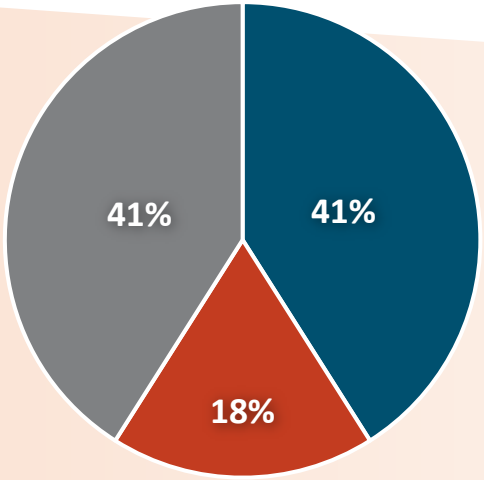
We have a rich GMP services pipeline

- Capture most customers at the development stage and focus on CleanCap technology
- 85% of our 500+ mRNA services customers utilize our proprietary CleanCap technology

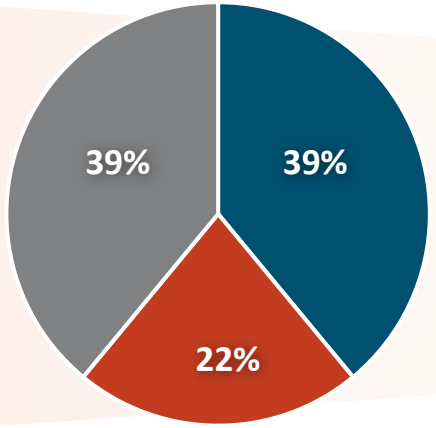
mRNA Discovery Customers with CleanCap[1,2]

500+

GMP mRNA CleanCap Customers
n = 50[3]



GMP CleanCap mRNA Customers in Clinic
n = 15[3]



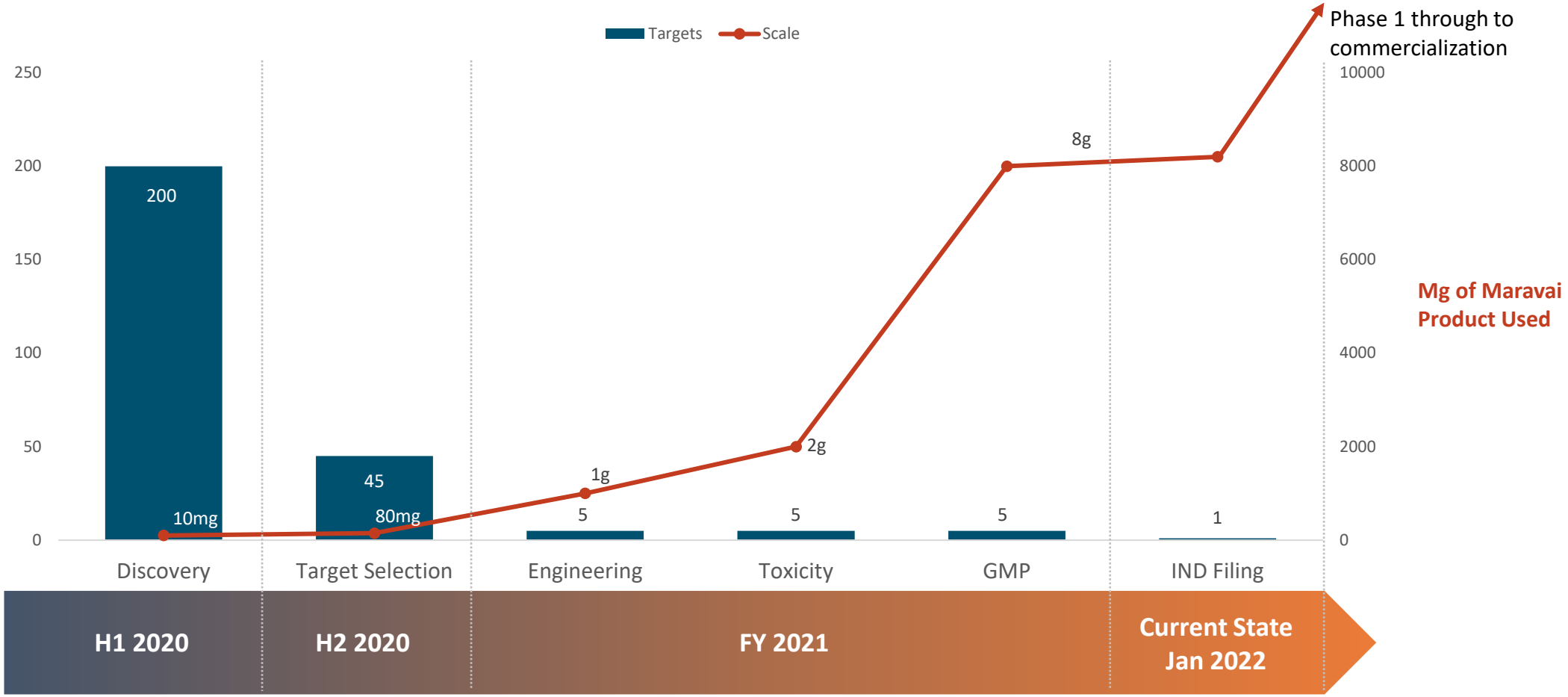
COVID Vaccine | Other Vaccine | Therapeutic

1. Information compiled using 18 month rolling data set – current as of 31 Dec. 2021
2. Does not include customers using CleanCap as stand-alone reagent for their own programs/manufacturing
3. The 50 and 15 customers are unique customers and may have multiple programs

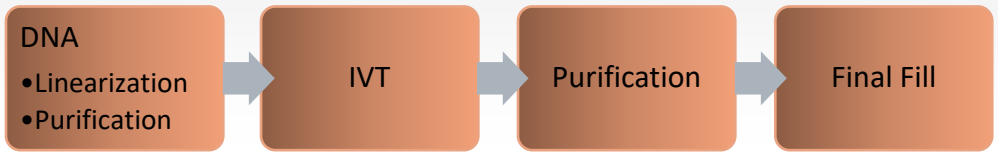
Customer journey: from discovery to commercialization, our capabilities scale with our customers

Customer Example:

Customer A
Indication: Oncology
Technology: Cell Therapy (*ex vivo*)



Engineering, Toxicity and GMP Process

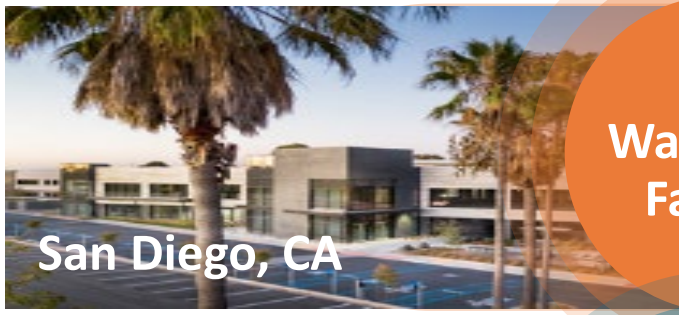


Customer journey: from discovery to commercialization, our capabilities scale with our customers

Focus end to end API development, scale up and manufacturing

WATERIDGE FACILITY

Our facilities are designed and engineered to meet demand in both mRNA products and services



Wateridge Facility

- 119,000 square feet
- CleanCap and NTP innovation and scaleup
- mRNA services for development and early clinical

Flanders Facility 1

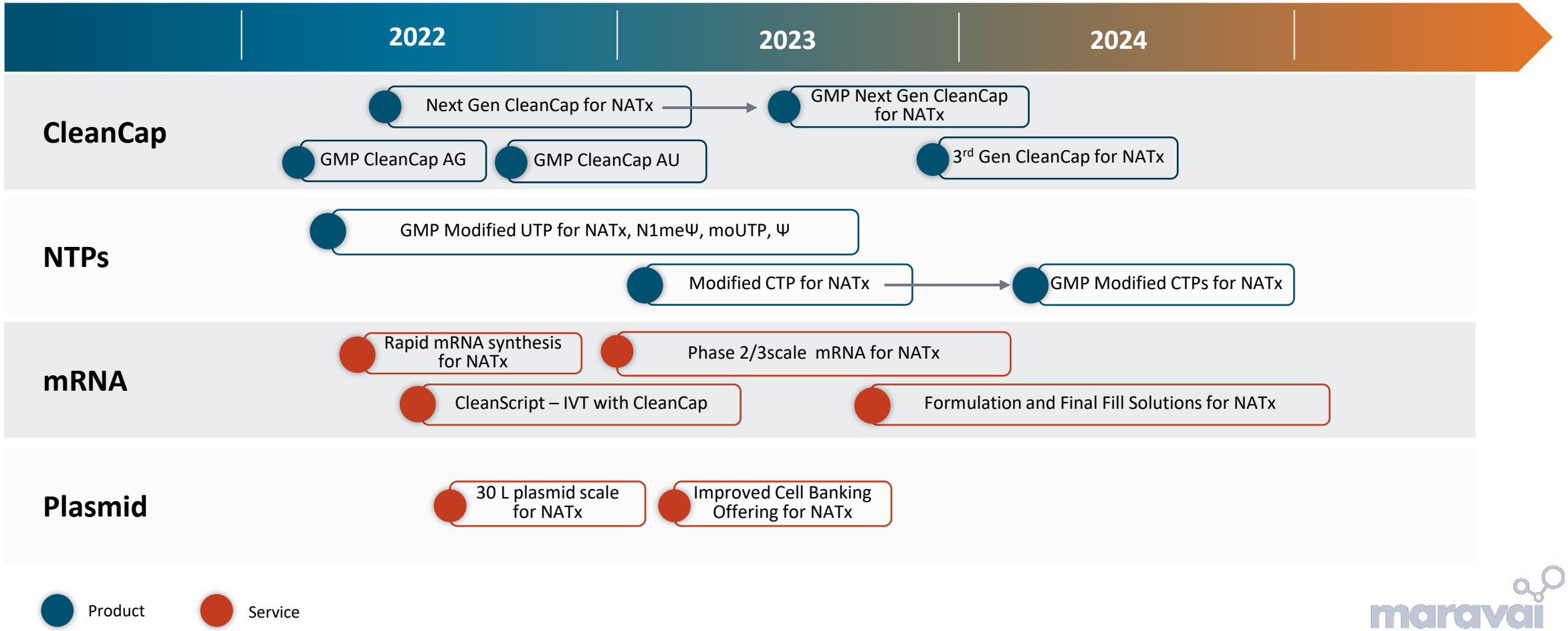
- 32,000 square feet
- CleanCap and NTP manufacturing
- GMP raw materials for clinical and commercial use

Flanders Facility 2

- 32,000 square feet
- mRNA development and manufacturing space
- Phase 2 clinical to early commercial use

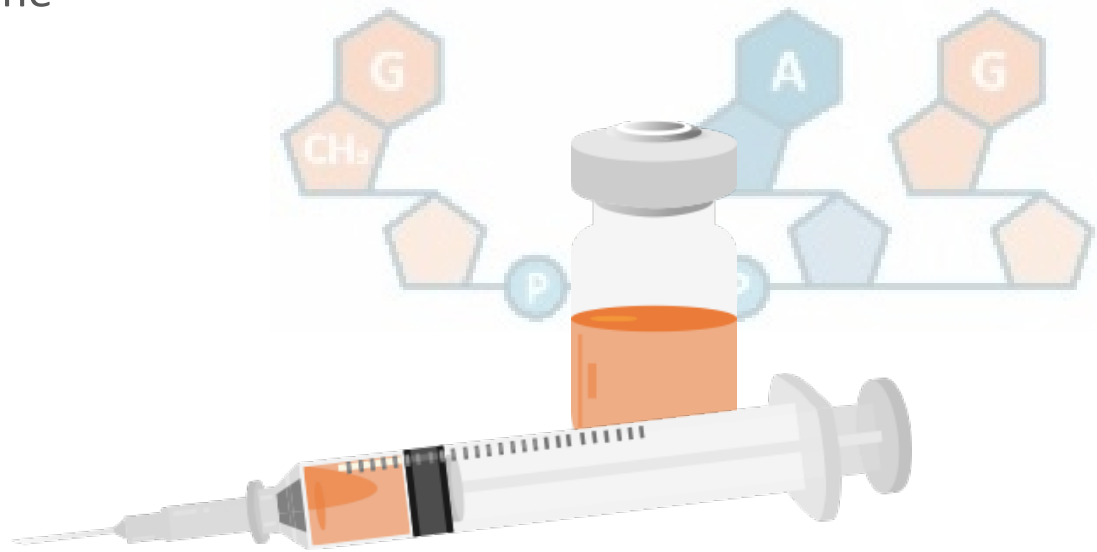
Continuing product innovation and quality are essential to our GMP mRNA customers

New product and service roadmap to support rapidly expanding industry innovation in mRNA vaccines and therapeutics



Maravai + MyChem strengthens our differentiated position in mRNA therapies and vaccines

- Capabilities accelerate development and production of chemically-synthesized GMP ultra-pure nucleotides for cell and gene therapies
- MyChem's ultra pure nucleotides can play a critical role in the development of mRNA applications
  - Lack of impurities due to the chemical manufacturing process
  - Well positioned to be a key supplier into this rapidly growing market
- Maravai / MyChem acquisition has strategic benefits
  - Cross-selling opportunities to existing customers
  - Expanded sales and marketing to new customers and markets
  - Ability to initiate GMP manufacturing of nucleotides
  - Additional opportunities with pharmaceutical customers in their mRNA programs for vaccine and therapeutic applications



Q&A Session

maravai
LifeSciences

Break

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CleanCap and CleanScript Overview

Mike Houston
Chief Scientific Officer,
TriLink BioTechnologies

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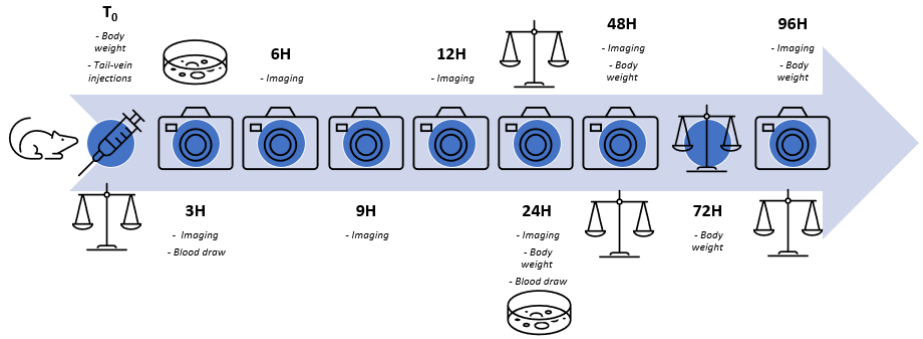
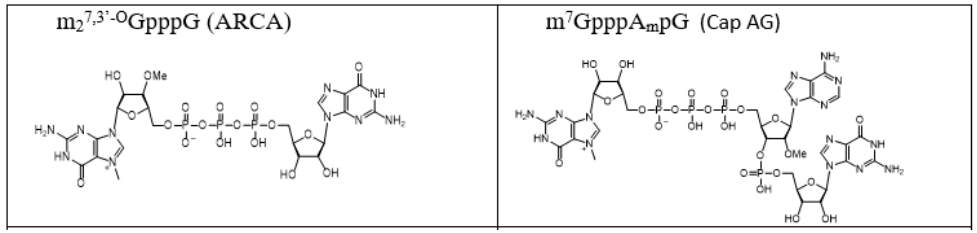
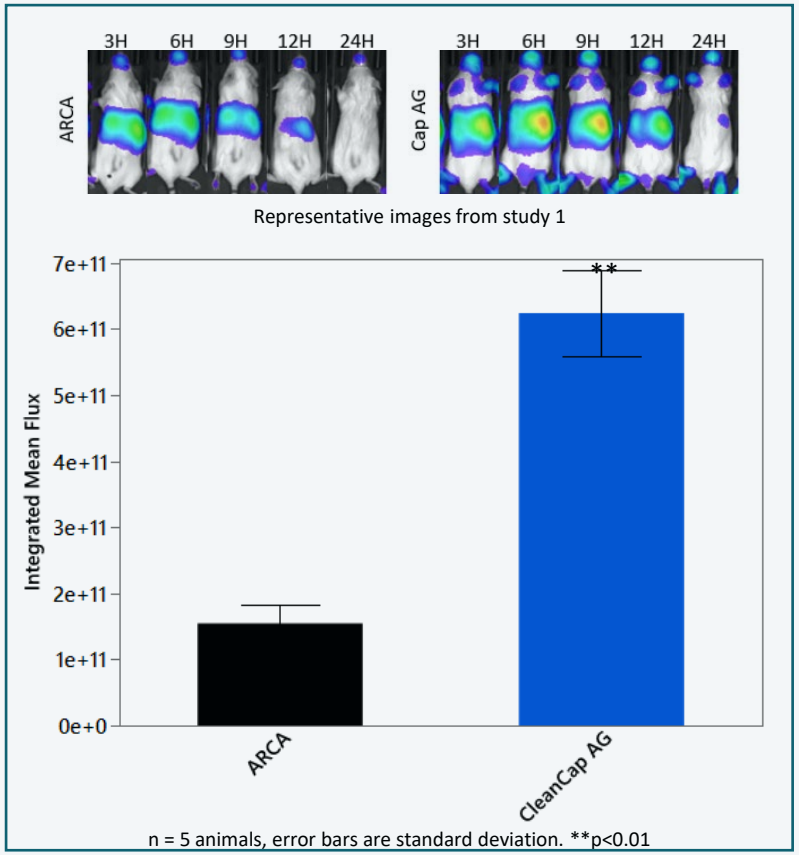
First-generation CleanCap expresses more protein than ARCA

Fluc mRNAs with N1meΨ modified bases were formulated into LNPs by Precision Nanoscience and injected via tail vein into mice by Charles River Labs to compare *in vivo* activity of cap forms







CleanCap AG significantly increases mRNA expression over ARCA cap *in vivo*

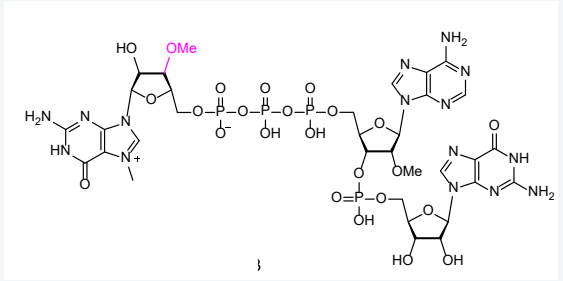
Next-generation CleanCap demonstrates higher potency and efficacy

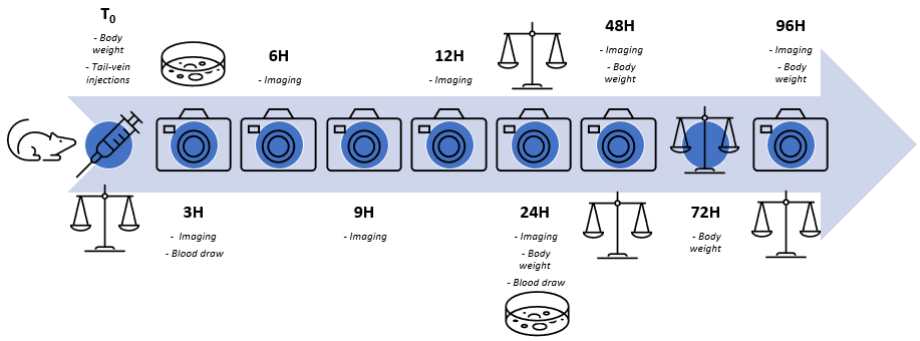
CleanCap 3'OMe used in Pfizer/BioNTech vaccine produces more proteins than first-generation CleanCap

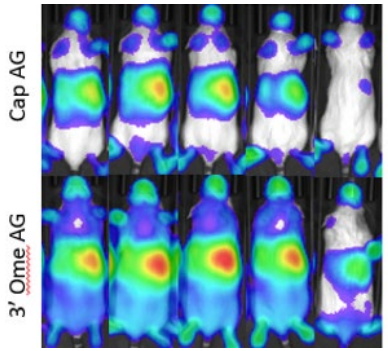
Studies comparing *in vivo* activity of CleanCap analogs demonstrate that novel CleanCap 3'OMe AG is reproducibly superior to CleanCap AG mRNA *in vivo*

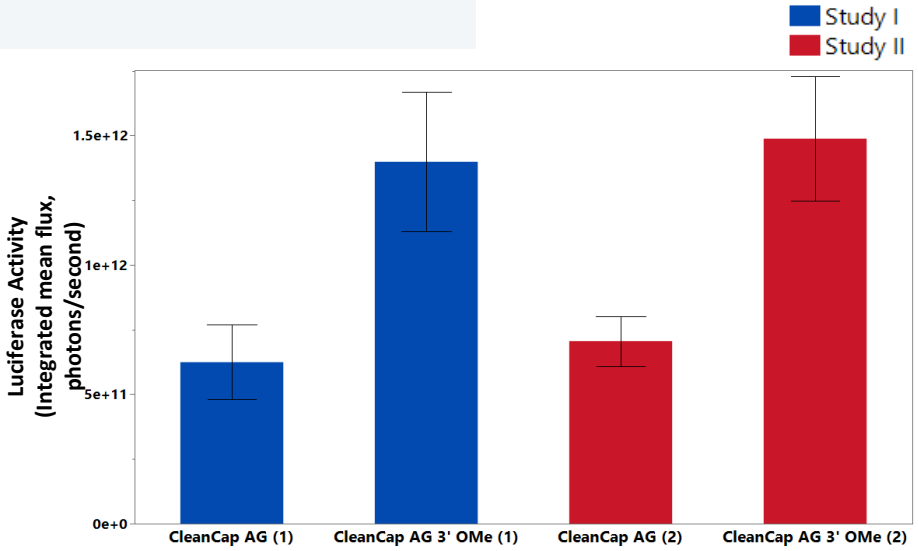
- Fluc mRNAs with N1meΨ modified bases were formulated into LNPs by Precision Nanoscience and injected via tail vein into mice by Charles River Labs

CleanCap 3'OMe AG





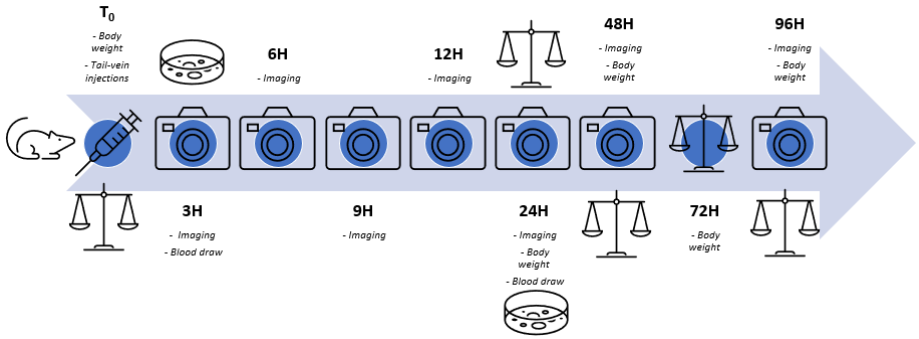


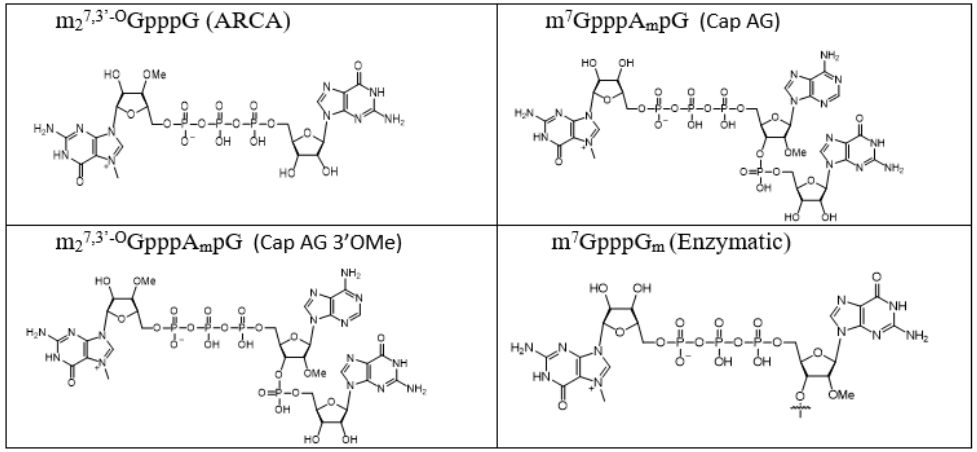


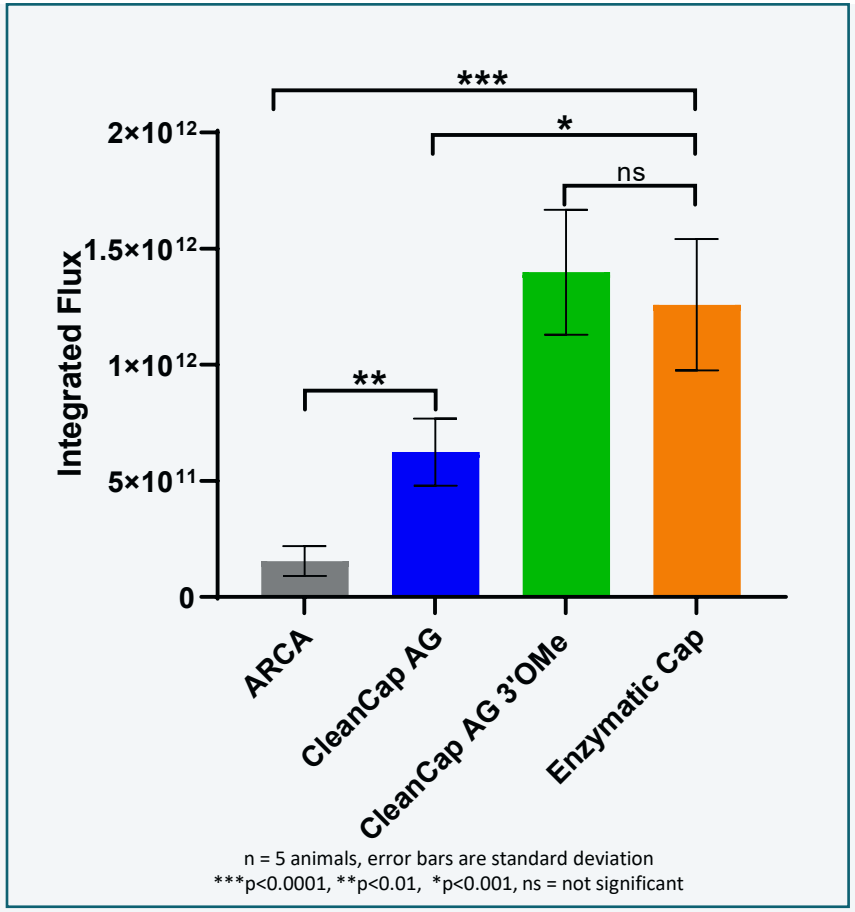
n = 5 animals, error bars are standard deviation

CleanCap Performance *in vivo*

Fluc mRNAs with N1meΨ modified bases were formulated into LNPs by Precision Nanoscience and injected via tail vein into mice by Charles River Labs to compare *in vivo* activity of cap forms







CleanCap AG 3'OMe is similar to enzymatically capped mRNA *in vivo*

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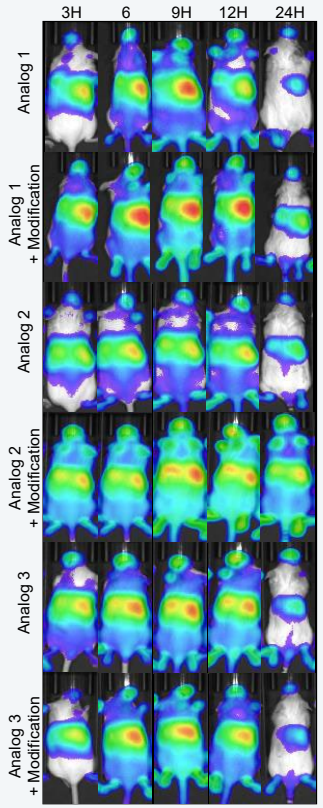
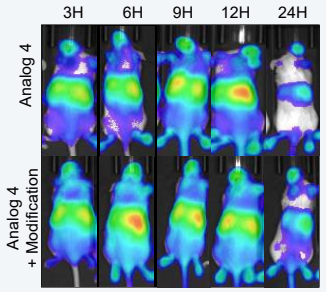
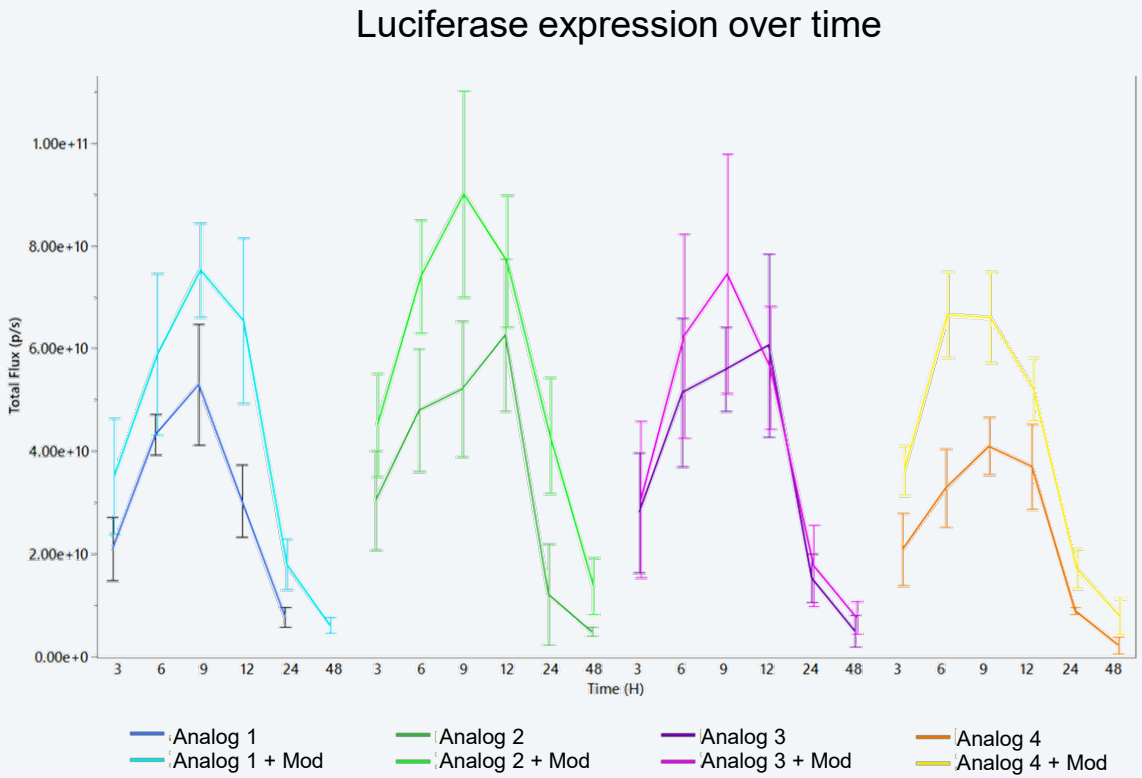
Novel CleanCap analogs show substantial improvement *in vivo*

Modification of cap analogs increases protein expression in vivo

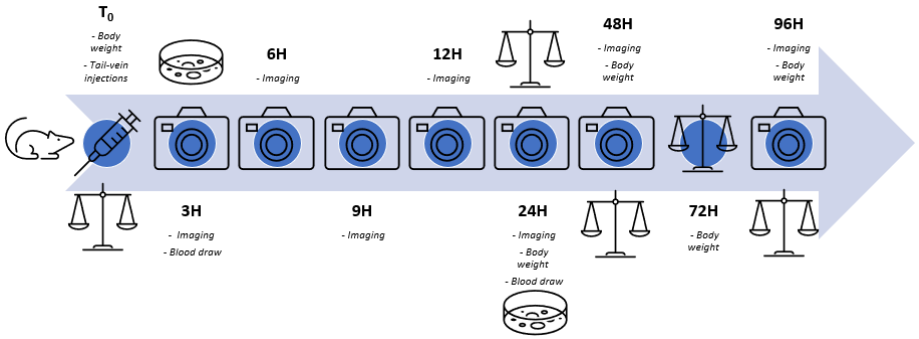




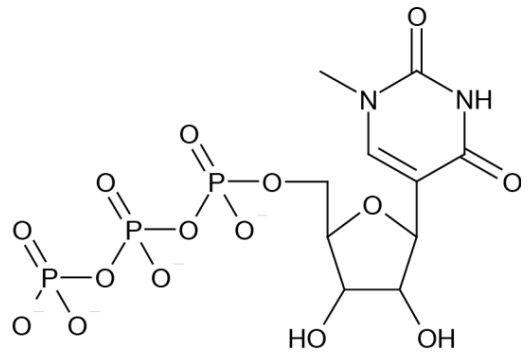
Representative images from study 2



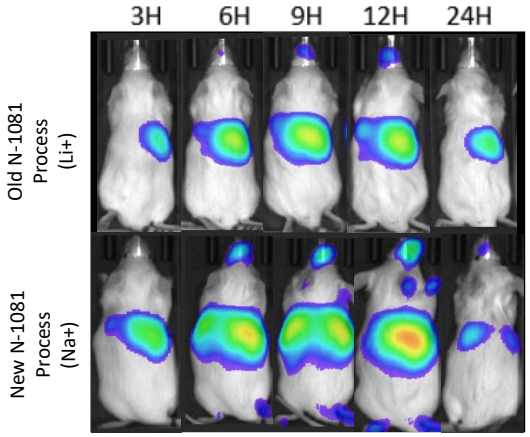
N1-me-Ψ Clean Room Grade Performance *in vivo*



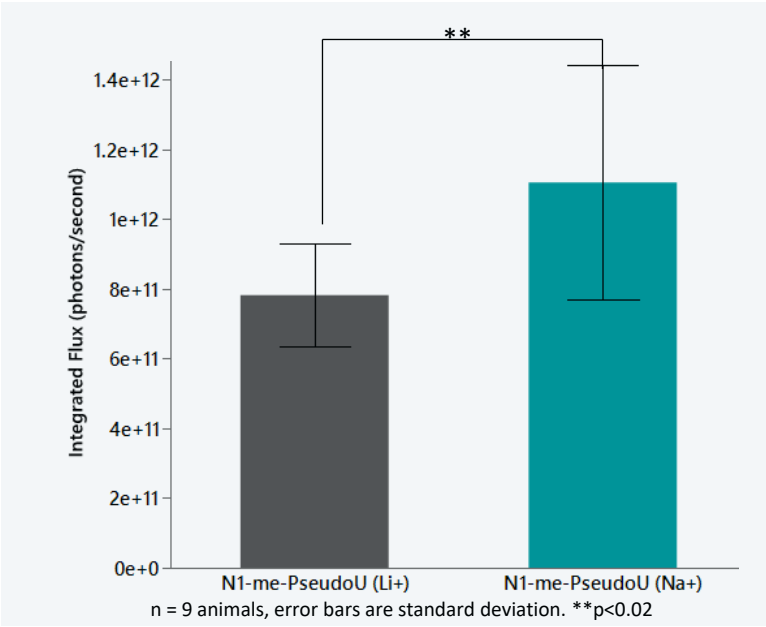
Fluc mRNAs with N1meΨ modified bases chemically synthesized by old and new process were formulated into LNPs by Precision Nanoscience and injected via tail vein into mice by Charles River Labs to compare *in vivo* activity; both mRNAs were capped with N-7413



Representative images from mouse study



Improved N-1081 modified NTP synthesis performs equal or better *in vivo*



n = 9 animals, error bars are standard deviation. **p<0.02

Streamlined manufacturing process yields higher quality mRNA

Execution of 2 L FLuc mRNA batch using optimized and scalable mRNA production process

IVT

CleanScript IVT: high yielding and low dsRNA

Bioreactor: single use, scalable platform with temperature control and low shear mixing

Purification

Optimized to increase mRNA quality, remove untailed impurities, and remove residuals from enzymatic steps

Single use, scalable platform with pre-packed columns

TFF

High recovery and low shear conditions

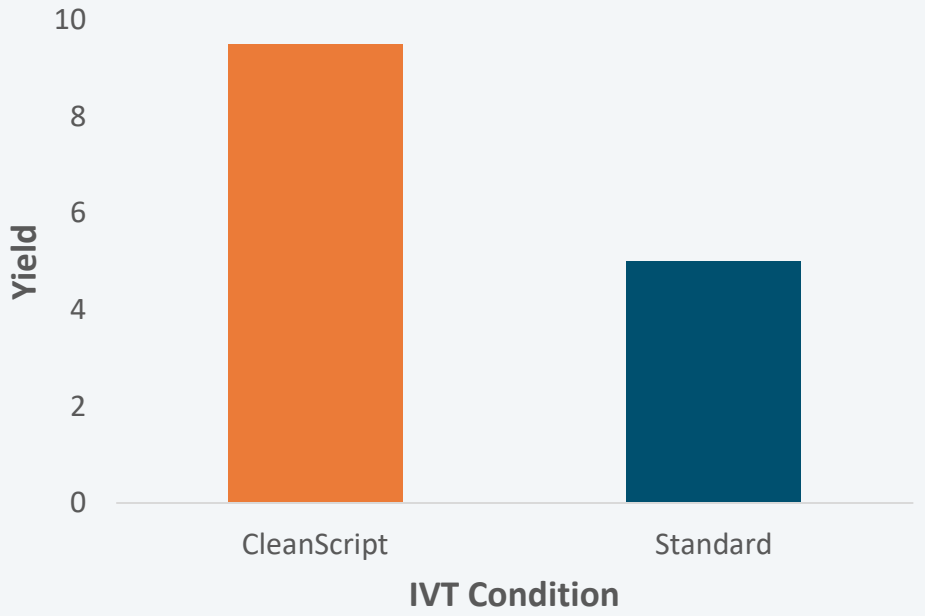
Single use, scalable platform

Optimized process results in higher yields and quality

2 L transcription reaction increases yield and quality

- CleanScript impacts seen in low dsRNA and high crude yield
  - dsRNA: 1.69 ng/ug[1]
  - Crude Yield: 10 g/L
- Purification and TFF result in high recoveries (all greater than 85%) and a high-quality mRNA
  - HPLC: 91.6%
  - FA: 84.8%
  - Final Yield 8.8 g/L

	Final Yield (g)	Final (g/L IVT)	FA (%)	HPLC (%)	ds RNA (ng/ug)[1]	Residual Protein (ug/mL)	Residual DNA (ng/mg)
2 L IVT, Fluc WT	**17.6**	**8.8**	**84.8**	**91.6**	**1.69**	<1	<1

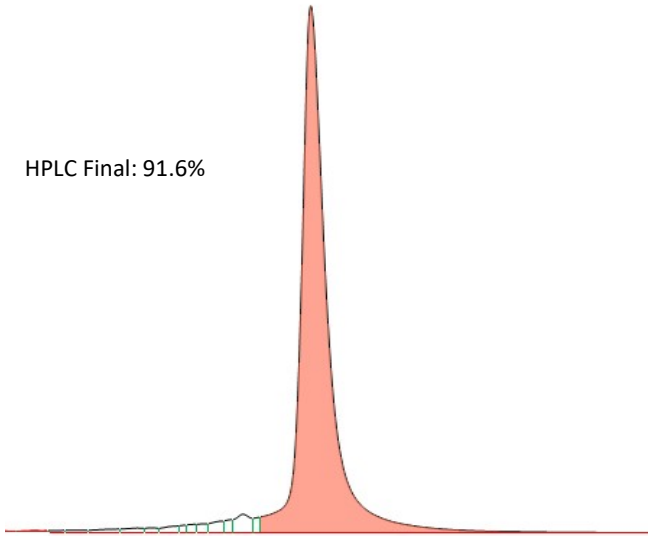


1. Updated April 2022 to ng/ug

Novel modification improves mRNA purity

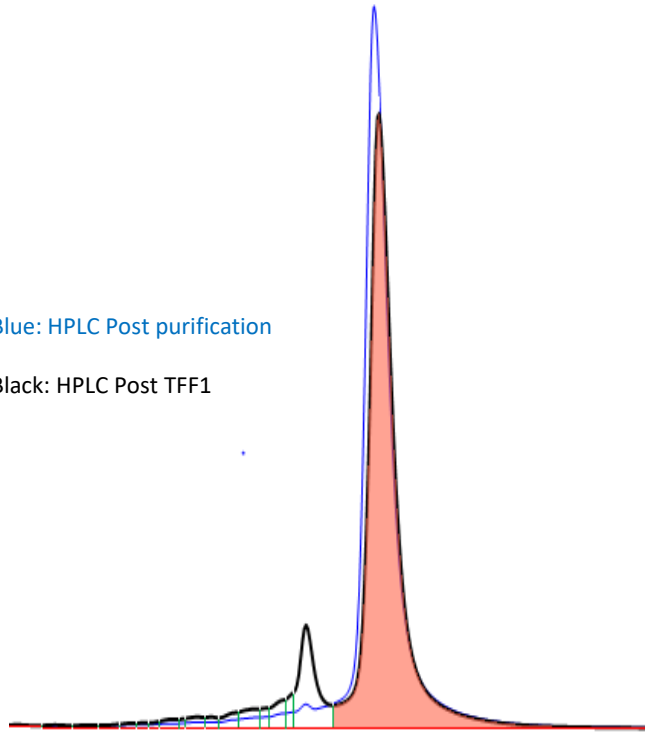
- By both HPLC and FA, there is a reduction in front impurities and a high-quality mRNA final product
  - Overlays highlight the removal of a front impurity that is likely the result of a reduction in untailed mRNA

HPLC Final: 91.6%

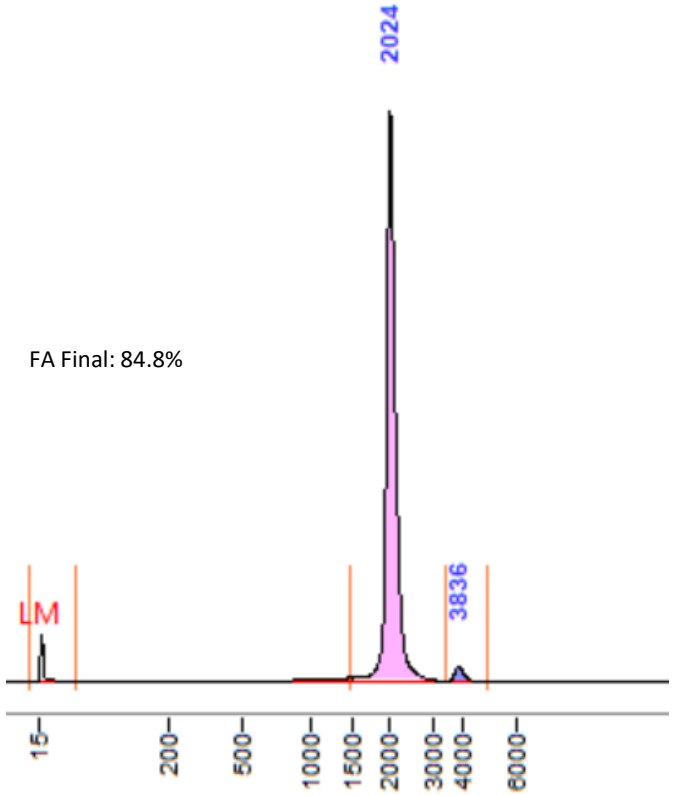


Blue: HPLC Post purification

Black: HPLC Post TFF1

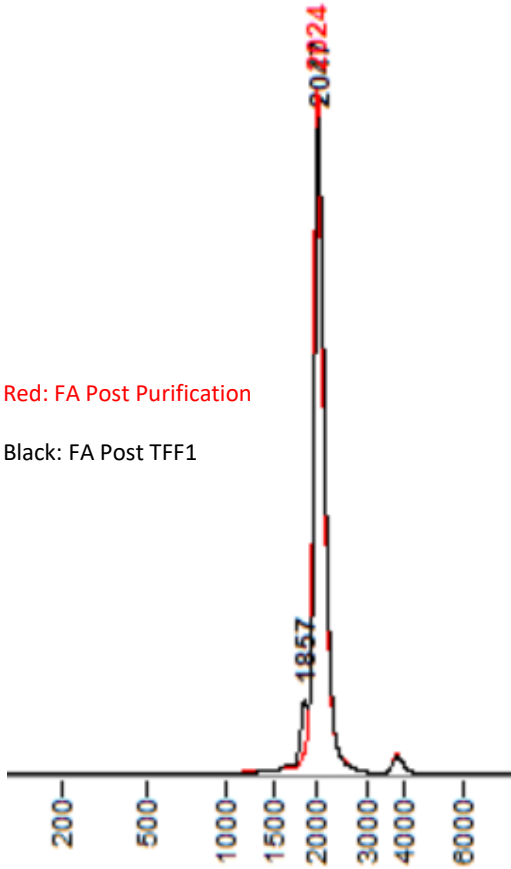


FA Final: 84.8%



Red: FA Post Purification

Black: FA Post TFF1



Proprietary manufacturing process results in lower dsRNA

- dsRNA reduction was confirmed at different scales across multiple constructs
  - A very similar reduction was seen during this 2L build using FLuc

	dsRNA (ng/µg)[1]			
Construct	Standard IVT	CleanScript IVT (3 mL)	CleanScript IVT (20 mL, Bioreactor)	CleanScript IVT (2 L, Bioreactor)
eGFP	7.75	2.95	2.35	-
Fluc	6.75	1.3	1.15	1.69
bGal	4.3	1.35	1.25	-
Cas9	4.4	2.7	2.9	-

1. Values vary from blot to blot and should be considered semi-quantitative; updated April 2022 to ng/ug

Investing in our Opportunities

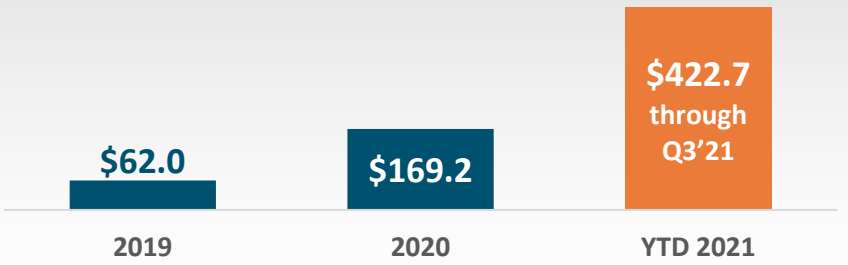
Kevin Herde
Executive Vice President
and Chief Financial Officer

maravai LifeSciences

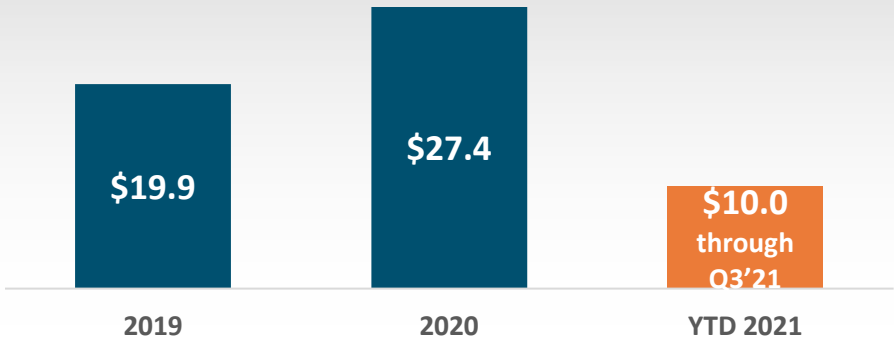
Strong revenue growth profile generating robust cash flows

Revenue ($M)

Adjusted EBITDA ($M)[1]



Capital Expenditures ($M)



Free Cash Flow ($M)[2]

1. Reconciliations provided on page 74
2. Free cash flow defined as Adjusted EBITDA less capex

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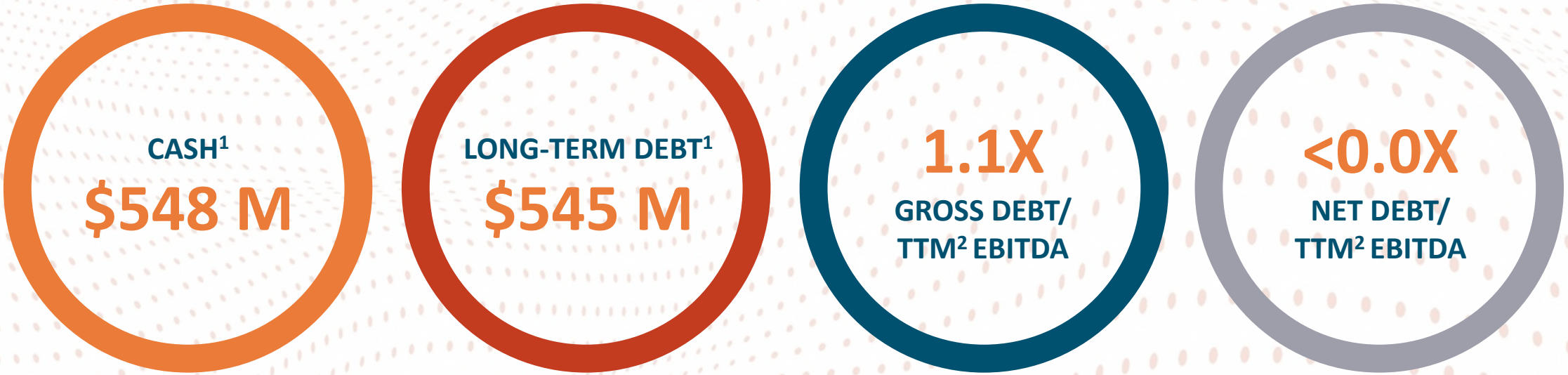
Balance sheet provides significant investment capacity



1. Cash and long-term debt as of 9/30/21
2. TTM EBITDA = Trailing twelve months EBITDA of $487 million

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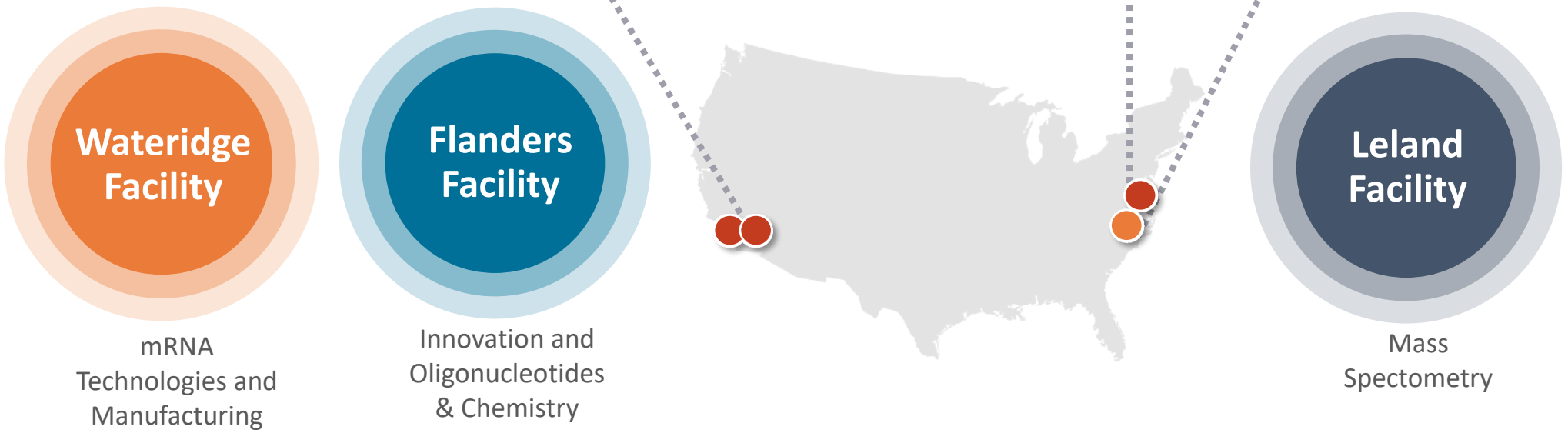
Expanding our facility footprint to support near- and mid-term growth plans

Nucleic Acid Production
San Diego, CA
183,000 square feet (leased)

Nucleic Acid Production
Sterling, VA
21,000 square feet (leased)

Biologics Safety Testing
Leland, NC
45,000 square feet (leased)



mRNA Technologies and Manufacturing

Innovation and Oligonucleotides & Chemistry

Mass Spectometry

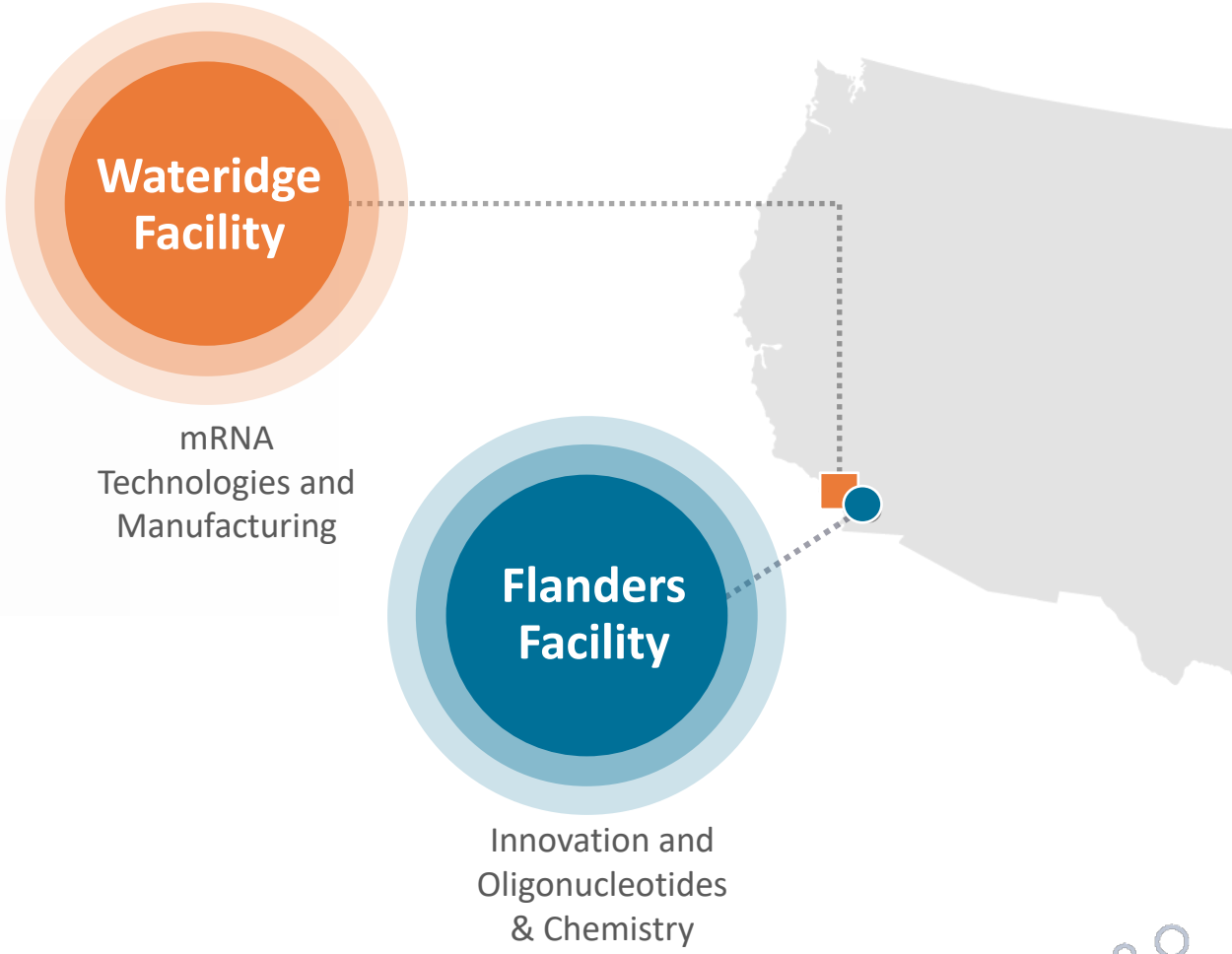
2022 Facility Investments

maravai LifeSciences

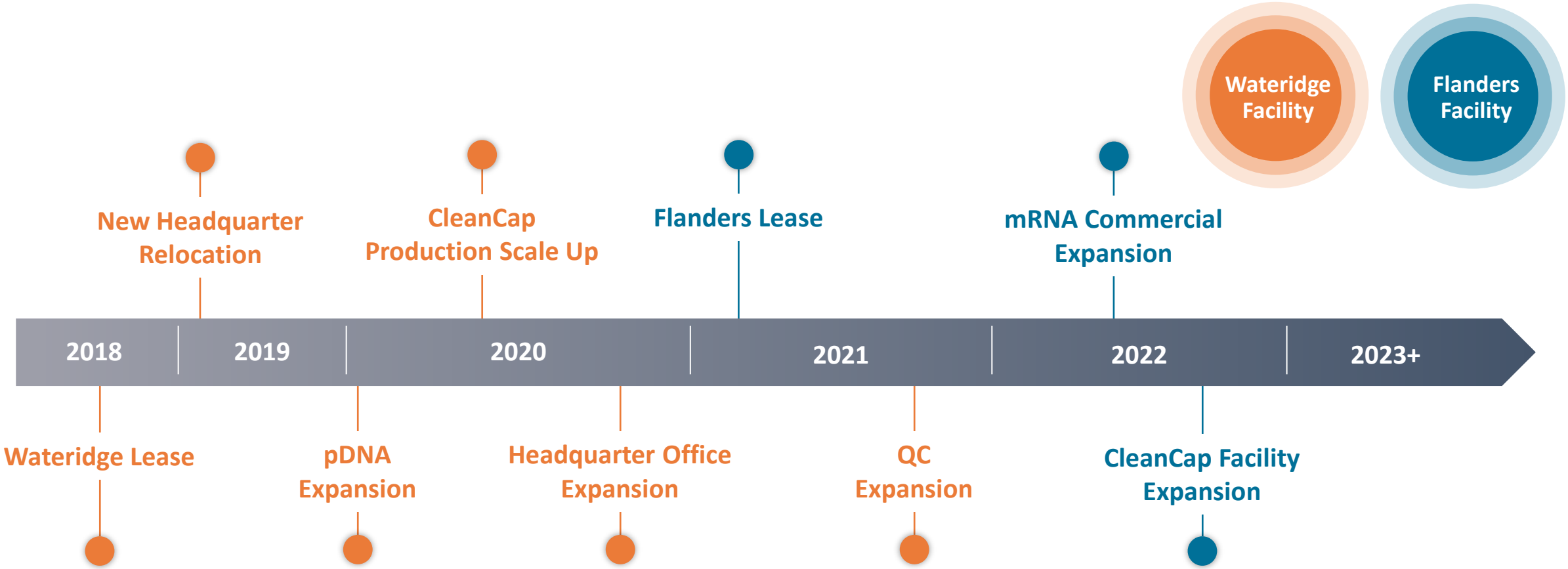
2022 Nucleic Acid Production facility investment focused on mRNA optimization

Will focus site on mRNA manufacturing and testing

- Optimize space and teams
  - mRNA services
  - Small molecule scale-up and production
- Critical raw materials Q3:2022
- Additional mRNA drug substance Q1:2023



Ongoing infrastructure investments in Nucleic Acid Production



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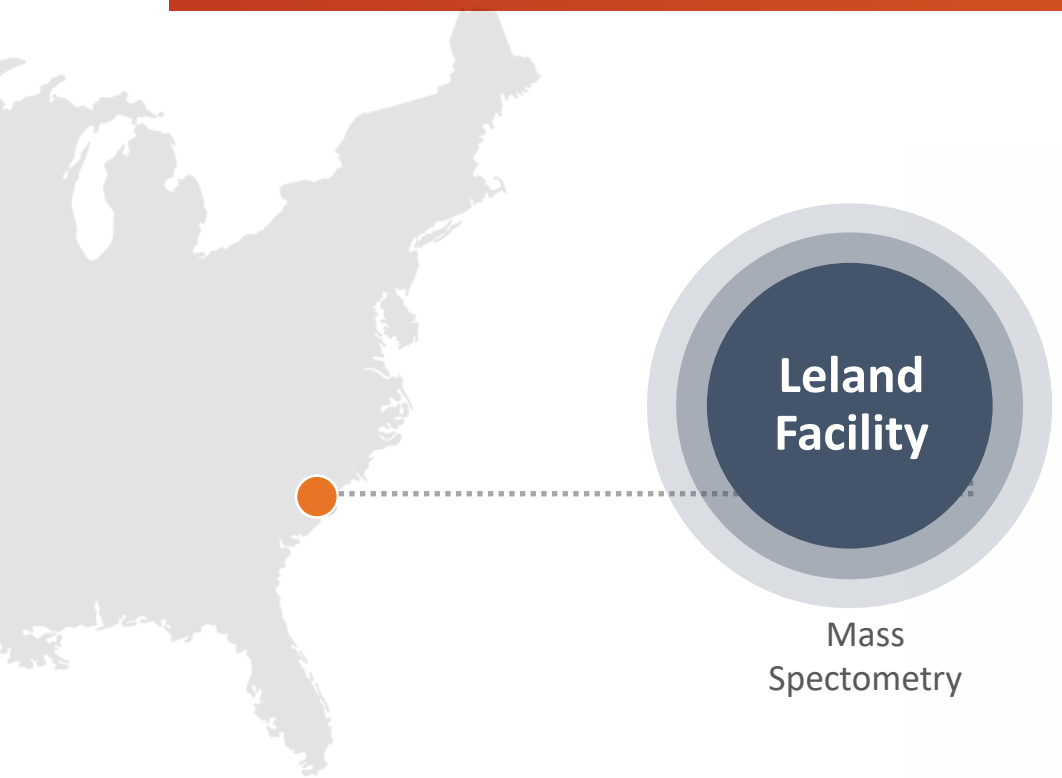
2022 Biologics Safety Testing facility investment focused on new Leland site



- New 45,000 sq. ft. state-of-the-art facility
  - Custom designed for growth plan
  - 2x square footage of previous facility
  - Occupancy Q3:2022
- Specialized cell culture facilities
- Significant increase of cold storage capacity
- R&D, laboratory and automation upgrades
- Optimized manufacturing and kit packaging operations

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We will begin to deploy our balance sheet to pursue strategic M&A opportunities

- Robust cash flows and strengthening balance sheet provide significant investment capacity
  - Includes ability to expand debt position if needed
- Active pipeline of opportunities that mirror the profile of historical Maravai deals

MyChem acquisition represents a strong strategic fit

- High quality, founder-based business with attractive revenue growth and EBITDA margin profile
- Differentiated technology that is synergistic with NAP and addresses high-growth end markets, blue-chip customers
- Current supplier to Maravai, with immediate opportunity to vertically integrate
- Up-front cash deal (~20x EBITDA) and performance milestones over next two years

Investing in business infrastructure with mindful ESG considerations

Continuing to invest in supply chain relationships, human capital and “doing the right thing”

Launch of the Maravai charitable foundation and focus on furthering other ESG initiatives

ENVIRONMENTAL SUSTAINABILITY

Developed an environmental policy

Partnered with supply chain mapping company

Implemented data collection practices to establish baseline environmental performance

HUMAN CAPITAL

Expanded our Employee Health and Safety management system

Completed an employee engagement survey with over 90% response

Included in the State Street Global Advisors Diversity Index

BUSINESS MODEL AND INNOVATION

Received ISO 9001:2015 for quality management at all facilities

Supported COVID-19 development efforts

Participated in leading supply chain industry partnerships

COMMUNITY RELATIONS

Donated $100,000 to local COVID-19 relief efforts

Supported Voices for Children through a $25,000 donation

Provided philanthropic funds to all locations to affect local change

READ ON WEB - HTTPS://INVESTORS.MARAVAI.COM/ESG

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Strong, vibrant business and culture

Core Values	ESG Initiatives	A Great Place to Work
Adaptability Open communication Quality mindset Working together Workplace awareness Reward	Environmental Sustainability Human Capital Business Model and Innovation Community Relations	

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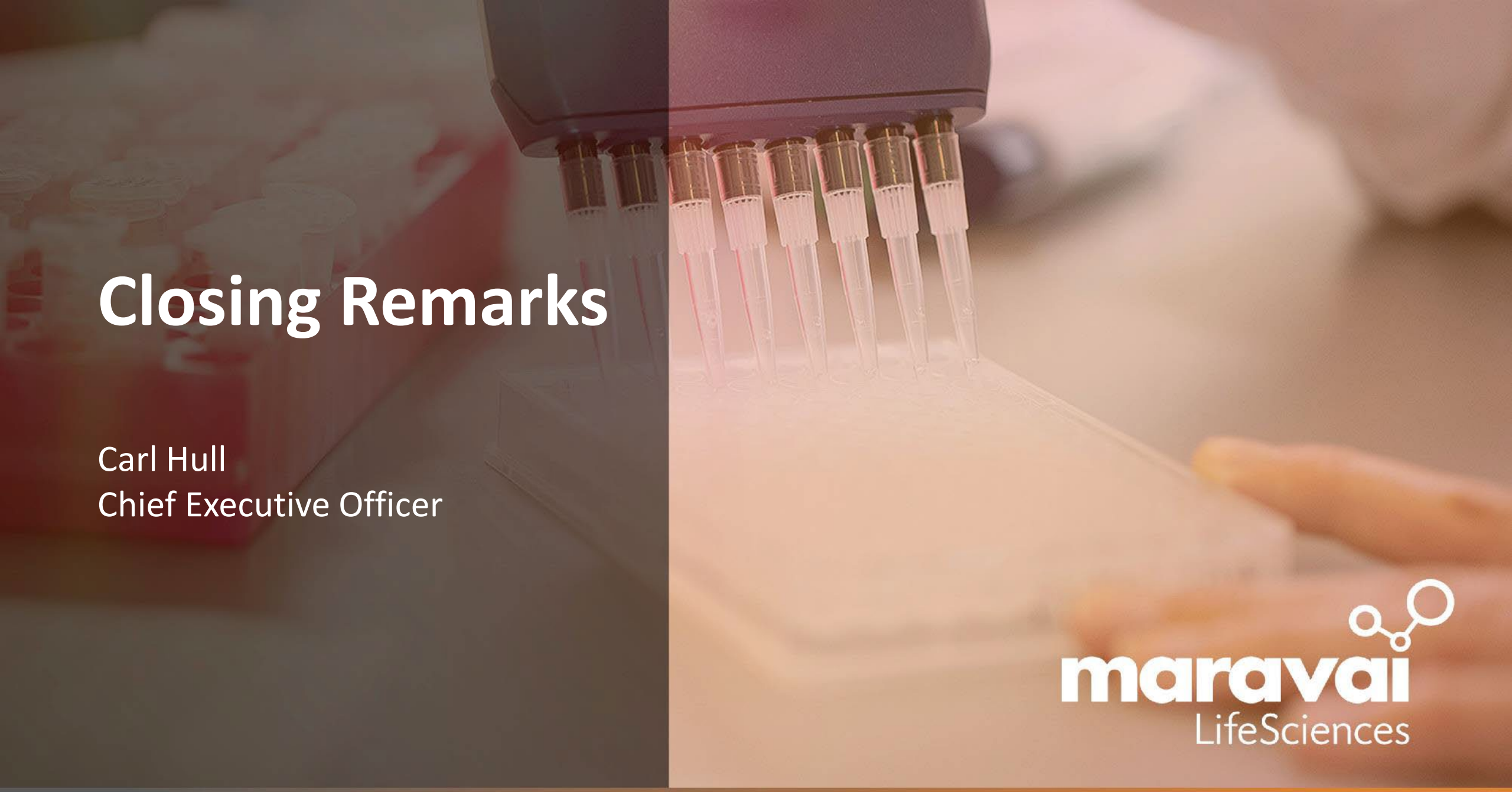
Closing Remarks

Carl Hull
Chief Executive Officer



In conclusion…

- We are playing in the right target markets with strong leadership positions and building our portfolio in high-value areas
- There is a significant opportunity for Maravai to emerge as a leading, critical supplier and solutions provider in the life sciences industry
- We are building a strong foundation for long-term, sustainable growth by investing in our core capabilities, operations, manufacturing and people

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Q&A Session

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INVESTOR R&D DAY

THANK YOU

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Non-GAAP Reconciliations

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Non-GAAP Reconciliations

Adjusted EBITDA Reconiliation in thousands			
	Nine Months Ended	**Nine Months Ended**	**Twelve Months Ended**
	9/30/2021	**9/30/2020**	**9/30/2021**
Net income	$ 342,140	$ 64,344	$ 356,612
Add:			
Amortization	14,685	15,156	19,849
Depreciation	4,668	4,756	5,505
Interest expense	23,238	21,934	32,044
Income tax expense	43,937	2,511	44,306
EBITDA	428,668	108,701	458,316
Acquisition integration costs [(1)]	38	3,588	307
Amortization of lease facility financing obligation	-	-	-
Acquired in-process research and development costs [(2)]	-	2,881	-
Equity-based compensation [(3)]	8,228	2,933	29,924
GTCR management fee [(4)]	-	555	125
Gain on sale of business [(5)]	(11,249)	-	(11,249)
Gain on sale and leaseback transaction [(6)]	-	(19,002)	-
Merger and acquisition related expenses [(7)]	1,496	218	1,673
Financing costs [(8)]	2,092	4,966	6,910
Loss on extinguishment of debt [(9)]	-	-	7,592
Tax receivable agreement liability adjustment [(10)]	(9,132)	-	(9,132)
Adjusted EBITDA	**$ 420,141**	**$ 104,840**	**$ 484,466**

(1) - Refers to incremental costs incurred to execute and integrate completed acquisitions.
(2) - Refers to in-process research and development charge associated with the acquisition of MockV Solutions, Inc.
(3) - Refers to non-cash expense associated with equity-based compensation.
(4) - Refers to cash fees paid to GTCR, LLC, pursuant to the advisory services agreement that was terminated in connection with our IPO.
(5) - Refers to the gain on the sale of Vector, which was completed in September 2021.
(6) - Refers to the gain on the sale of our Burlingame, California facility, which was leased back to the Company in 2020.
(7) - Refers to diligence, legal, accounting, tax and consulting fees incurred associated with acquisitions that were not consummated.

(8) - Refers to transaction costs related to our IPO and the refinancing of our long-term debt that are not capitalizable or cannot be offset against proceeds from such transactions.

(9) - Refers to non-operating cash expense incurred on extinguishment of debt.
(10) - Refers to the gain related to the adjustment of our tax receivable agreement liability primarily due to changes in our estimated state apportionment and the corresponding reduction of our estimated state tax rate.

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