



Powering a New Decade of DNA Medicines

June 2022



Forward-Looking Statements

This presentation includes statements that are, or may be deemed, “forward-looking statements,” within the meaning of Section 27A of the Securities Act of 1933, as amended. All statements, other than statements of historical facts, included in this presentation regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans and objectives of management are forward-looking statements. In some cases, you can identify forward-looking statements by terms such as “may,” “might,” “will,” “objective,” “intend,” “should,” “could,” “can,” “would,” “expect,” “believe,” “anticipate,” “project,” “target,” “design,” “estimate,” “predict,” “opportunity,” “proposition,” “strategy,” “potential,” “plan” or the negative of these terms and similar expressions intended to identify forward-looking statements.

You should not place undue reliance on these forward-looking statements. Forward-looking statements include, but are not limited to, statements about: the timing and success of preclinical studies and clinical trials; the ability to obtain and maintain regulatory approval of our product candidates; the scope, progress, expansion and costs of developing and commercializing our product candidates; our expectations regarding the amount and timing of our expenses and revenue; the sufficiency of our cash resources, plans for the use of our cash resources and needs for additional financing; our ability to adequately manufacture our product candidates; our ability to obtain and maintain intellectual property protection for our product candidates; our expectations regarding competition; the size and growth of the potential markets for our product candidates and the ability to serve those markets; the rate and degree of market acceptance of any of our product candidates; our anticipated growth strategies; the anticipated trends and challenges in our business and the market in which we operate; our ability to establish and maintain development partnerships; our ability to attract or retain key personnel; our expectations regarding federal, state and foreign regulatory requirements; regulatory developments in the United States and foreign countries and other factors that are described in the “Risk Factors” and “Management's Discussion and Analysis of Financial Condition and Results of Operations” sections of our Annual Report on Form 10-K for the year ended December 31, 2021 and our Form 10-Q for the quarter ended March 31, 2022, which has been filed with the Securities and Exchange Commission (SEC) and are available on the SEC's website at www.sec.gov.

In addition, the forward-looking statements included in this presentation represent INOVIO's views as of the date hereof. INOVIO anticipates that subsequent events and developments may cause its views to change. However, while INOVIO may elect to update these forward-looking statements at some point in the future, the company specifically disclaims any obligation to do so, except as may be required by law. These forward-looking statements should not be relied upon as representing INOVIO's views as of any date subsequent to the date of this presentation.

Third-party industry and market information included herein has been obtained from sources believed to be reliable, but the accuracy or completeness of such information has not been independently verified by, and should not be construed as a representation by, INOVIO. The information contained in this presentation is accurate only as of the date hereof. “INOVIO” and the INOVIO logo are trademarks and service marks of INOVIO. All other trademarks, service marks, trade names, logos and brand names identified in this presentation are the property of their respective owners.

Powering DNA Medicines

INOVIO is focused on developing and commercializing DNA medicines to help protect people from infectious diseases and help treat people with cancer and HPV-associated diseases.

Optimized DNA plasmids delivered through **proprietary smart device**

Balanced humoral and cellular immune responses to a wide range of antigen targets

Extensive patent portfolio protecting technology platform

Well-tolerated in more than 15,000 administrations (~5k participants)

Designed to **treat and prevent cancers & infectious diseases**

No frozen storage issues (room temp storage >1 yr.)

Targets multiple antigenic sequences; combining multiple antigens into single vial

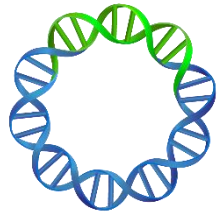
No anti-vector response; ability to readminister and boost



INOVIO's Proprietary Technology

OPTIMIZED PLASMID DESIGN AND DELIVERY TECHNOLOGY

**PRECISELY
DESIGNED PLASMIDS
(SynCon®)**



**PROPRIETARY
SMART DEVICES
(CELLECTRA®)**

**Intramuscular
(IM) Device** for
Pre-Cancers &
Cancers



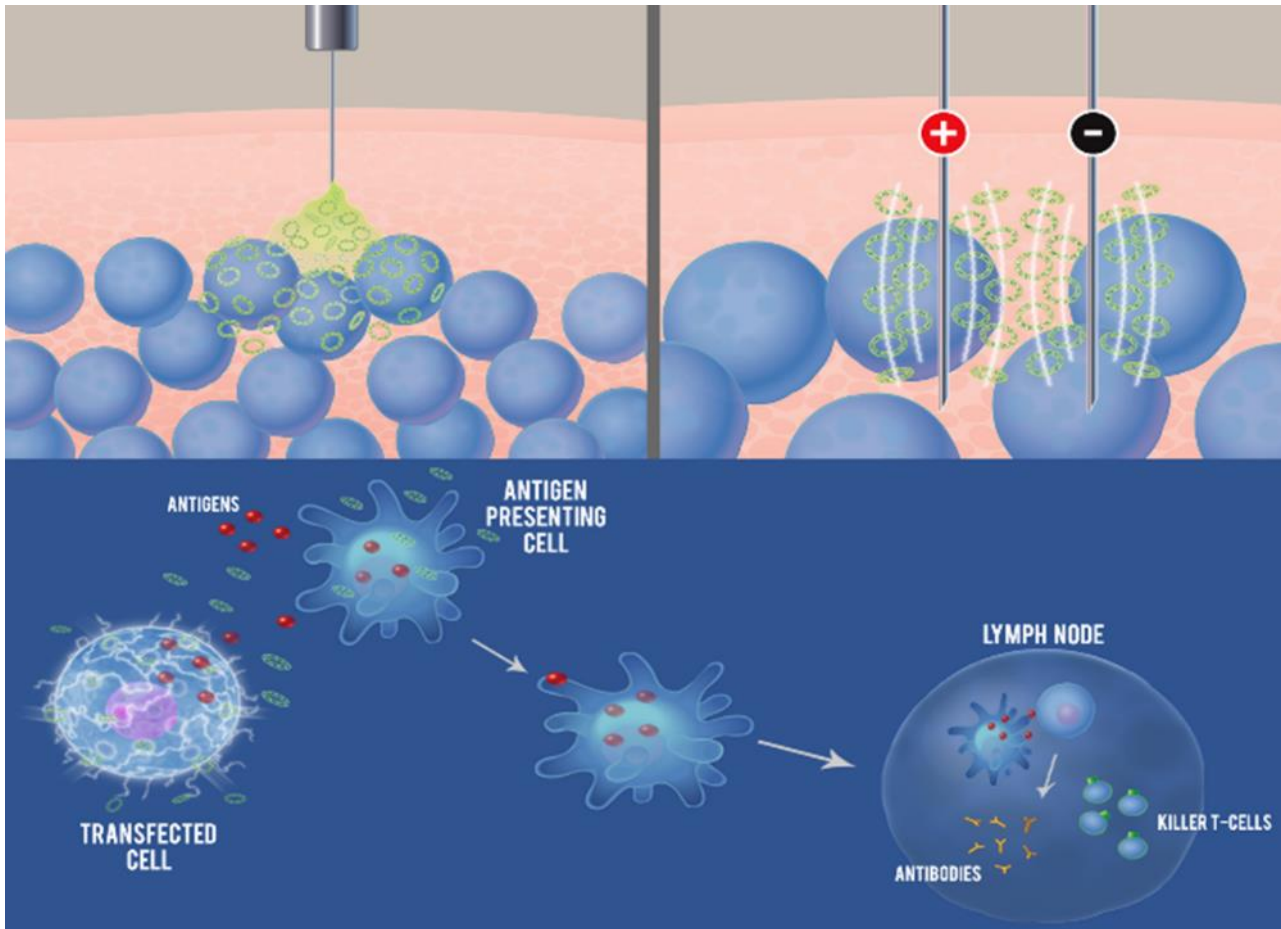
**Intradermal (ID)
Device** for
Vaccines



IN VIVO



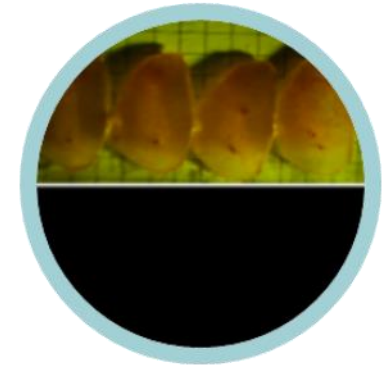
DNA Delivered with CELLECTRA Results in Improved Immune Responses



No CELLECTRA

Muscle + GFP

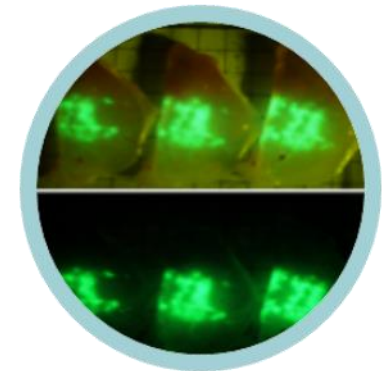
GFP



With CELLECTRA

Muscle + GFP

GFP



INOVIO DNA Medicines Pipeline

	PRODUCT	INDICATION	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	PARTNER/COLLABORATOR/FUNDER
COVID-19	INO-4800	COVID-19 (Heterologous Boost)	Internally Funded				Advaccine
		COVID-19 (Solidarity)	Externally Funded				World Health Organization
INFECTIOUS DISEASES	INO-4700	MERS	Externally Funded				CEPI
	INO-4500	Lassa Fever	Externally Funded				CEPI
	INO-4201	Ebola (Booster)	Externally Funded				DARPA, UNIVERSITÉ DE GENÈVE, GuardRX
HPV-TARGETED	VGX-3100	Precancerous Cervical Dysplasia (HSIL)	Internally Funded				Apollbio <i>(China; INOVIO maintains global rights)</i>
		Precancerous Vulvar Dysplasia (HSIL)	Internally Funded				
		Precancerous Anal Dysplasia (HSIL)	Internally Funded				
	INO-3107	Recurrent Respiratory Papillomatosis (RRP)	Internally Funded				
IMMUNO-ONCOLOGY	INO-5401	Glioblastoma Multiforme (GBM)	Internally Funded				REGENERON
	INO-5151	Prostate Cancer	Externally Funded				CANCER RESEARCH INSTITUTE, PICC PARKER INSTITUTE FOR CANCER IMMUNOTHERAPY
dMAb™	INO-A002	COVID-19	Externally Funded				AstraZeneca, DARPA, THE WISTAR INSTITUTE
		Zika	Externally Funded				BILL & MELINDA GATES foundation

INTERNALLY FUNDED  EXTERNALLY FUNDED 

COVID-19 & Infectious Diseases



INOVIO DNA Platform Key Attributes

INOVIO's DNA platform is an important novel vaccine technology, as it provides favorable CD8 T cell response, ability to readminister, and temperature stability.

SELECT DIMENSIONS

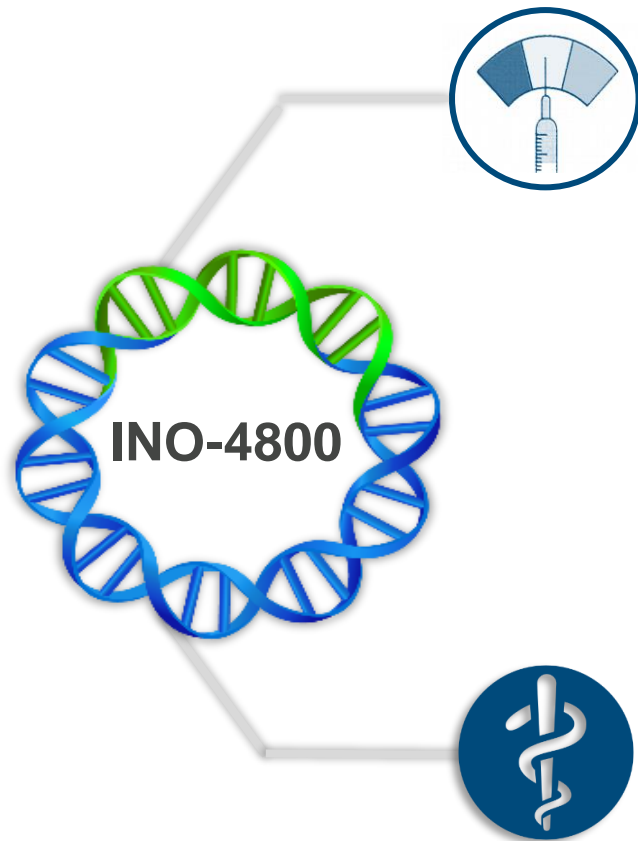


ADVANTAGES

ONGOING AND FUTURE PANDEMIC IMPACT

CD8+ RESPONSE	Drives CD8+ responses – likely to mitigate the threat of new circulating strains	T-cell responses may be an effective countermeasure for the next pathogen
ANTIBODY RESPONSE	Binding antibodies & neutralizing antibodies at all doses and age groups	Platform can direct cross-neutralizing responses
BOOSTABILITY	Can be re-administered multiple times , leading to potentially increased CD8 response	Opportunity for homologous and heterologous boosting
SAFETY, TOLERABILITY, REACTOGENICITY	Well-tolerated in 5,000+ participants and 15,000+ doses	Immunogenic with minimal side effects and no increased reactogenicity with boosting
STORAGE AND TRANSPORTATION	Reduced reliance on cold chain - stores at 2-8° C for 5 years and at ambient for 1 year	No frozen cold chain requirement – simplified logistics for mass vaccinations and remote locations
RAPID DESIGN AND MANUFACTURE	INOVIO's DNA medicines can be designed quickly through optimized SynCon® technology	Quick response to emerging threats with clinical trials started in 3 months
COMMERCIAL READINESS	Invested in manufacturing equipment, manufacturing capacity reservations , and operational infrastructure	Prepared to manufacture volumes within a short period

COVID-19 Vaccine Candidate INO-4800 Pathways



Heterologous Boost

- HB strategy represents a greater opportunity as COVID-19 enters the endemic phase
- Currently in discussions with regulators in key countries regarding trial and pathways to licensure
- Key characteristics of INO-4800 could make it an ideal Heterologous Boost candidate
 - Cross reactive CD8 T cell response and associated durability of response
 - Ability to readminister (no anti-vector response)
 - Temperature stability
- Preliminary T cell response data from Advaccine's booster trials in China support INO-4800's potential as a booster

WHO-Sponsored Solidarity Trial Vaccines

- Global Phase 3 placebo-controlled trial will enroll 40,000 participants
- Trial represents the largest global clinical trial for COVID-19 vaccine candidates
- INO-4800 was selected by the WHO's independent vaccine prioritization advisory group

Heterologous Boost – INO-4800

Path Forward

- Evaluating the feasibility of an additional ex-US heterologous boost trial with INO-4800 as a booster in a non-inferiority clinical trial compared to viral and inactivated COVID-19 vaccines

Global Demand

- Currently licensed vaccines may not meet the global demand for boosters to **address waning protection** from these primary vaccinations

Key Features

- INOVIO's DNA vaccine technology make it a potential booster candidate including:
 - **Cross-reactive T-cell responses**
 - **Tolerability of re-administration**
 - **Temperature stability for transport, storage, and distribution**

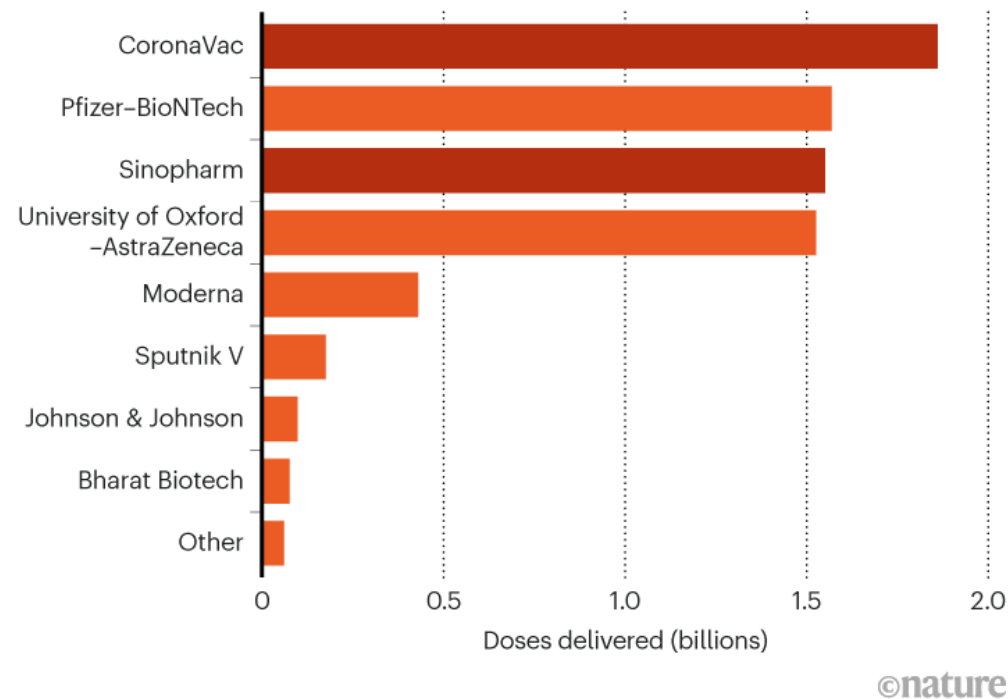
Preliminary T Cell Data from China Homologous and Heterologous Boost Data

- Two doses of inactivated vaccine followed by a boost with INO-4800 resulted in an increase in the T cell immune response by 6.3 fold
- In a separate study Advaccine assessed three doses of inactivated vaccine. The cellular response was increased by 1.7 fold.

Heterologous Boost Market Potential

THE RACE TO VACCINATE

Out of the eight vaccines that account for the vast majority of COVID-19 vaccine doses delivered globally, China's CoronaVac and Sinopharm jabs account for nearly half of all doses.



Source: Data from Airfinity.

- Booster market is much larger than primary vaccine market
- Inactivated and viral vector vaccines have been administered primarily in Low- and Middle-Income countries
- About 2.4 billion doses of the Chinese vaccines have been administered in China, but almost 1 billion doses have gone to 110 other countries
- Global demand for heterologous boosters may not be met with currently licensed vaccines (EUA or full authorization) for primary series or those not currently licensed but with Phase 3 data efficacy data
- Market reset focused now on heterologous boost

Infectious Disease Pipeline Progress

INO-4500 for Lassa Fever

- Phase 1b clinical trial
- **Completed enrollment of 220 participants**
- Funded by CEPI
- Conducted in Ghana

INO-4700 for MERS

- Phase 2 clinical trial in approximately 500 participants
- **Completed enrollment for dose-finding stage (192 participants)**
- Funded by the CEPI
- Conducted at sites in Jordan, Lebanon, and Kenya

INO-4201 for Ebola

- Phase 1b clinical trial
- **Completed enrollment of 46 participants**
- Funded by DARPA
- Evaluating INO-4201 as a booster in participants previously vaccinated with Ervebo®

Collaborations & Partnerships for ID Programs



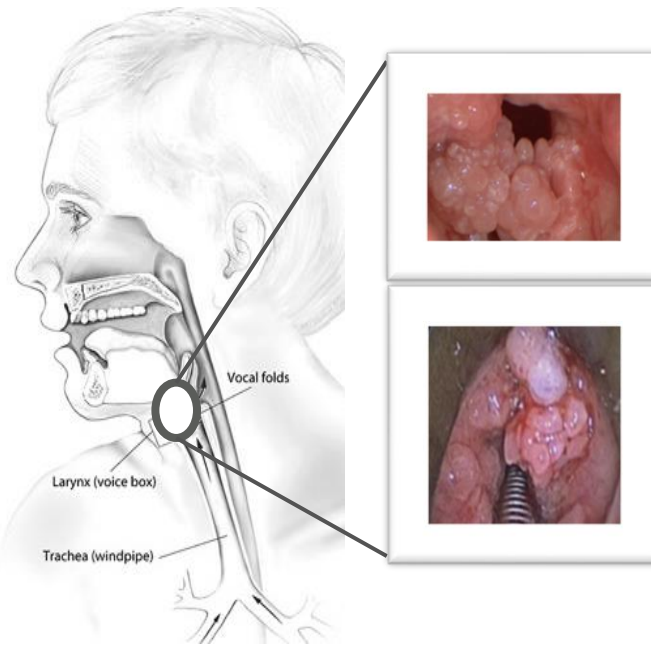
HPV Programs



INO-3107 against Recurrent Respiratory Papillomatosis (RRP) caused by HPV 6/11

- HPV-associated disease; caused by HPV 6/11
- Rare, orphan disease with **~approx. 7,330 total active cases within the U.S.**¹, where virtually all of those require surgical procedures
 - **~3,000 new cases per yr. in the U.S.**
- Growths can lead to life-threatening airway obstructions
 - **Standard of care is lifelong surgery, repeated as needed to address symptoms**
 - Currently, disease is incurable and can only be treated as needed by surgery to remove tumors to temporarily restore the airway
- RRP may occur in adults as well as in children

Areas affected by Recurrent Respiratory Papillomatosis (RRP)



INO-3107 Update & Catalysts

- **Granted Orphan Drug Designation** in July 2020
- **Completed enrollment of 32 participants** in an open-label, multicenter **Phase 1/2 clinical trial** in participants with HPV 6/11-associated RRP (1Q22)
- Immune responses and **early clinical benefit data from Phase 1/2 trial in 2H22**
- **Phase 3 trial expected in 1H23**

INO-3107 Phase 1/2 Study in RRP – Data Expected in 2H22

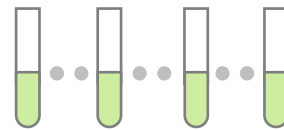
TRIAL: **INO-3107** (for HPV Subtypes 6 and/or 11-caused RRP) *Granted Orphan Drug Designation*



Phase 1/2 open-label, multi-center clinical study



Target enrollment



4 doses of vaccine, 3 weeks apart on Day 0, Weeks 3, 6, 9



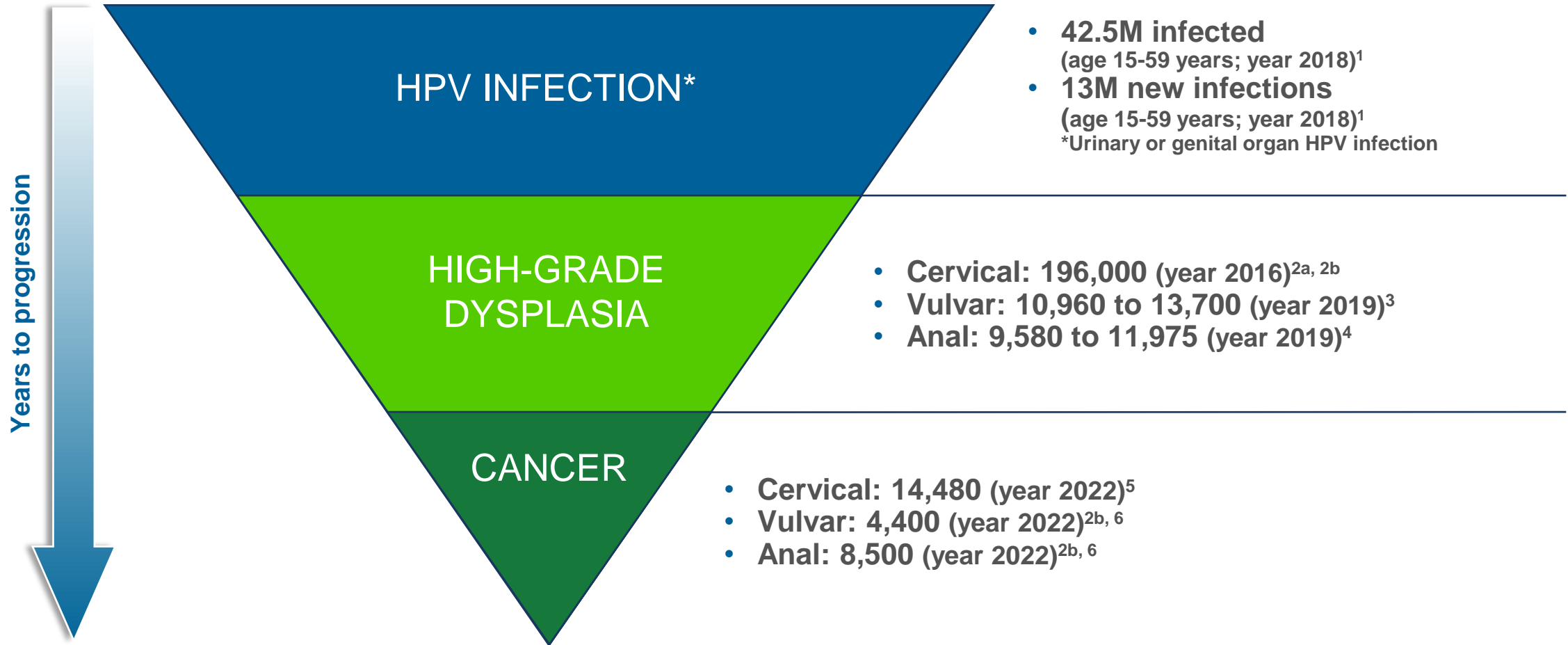
CELLECTRA-delivered INO-3107 plasmid encoded antigens (Intramuscular)

Enrollment criteria: Participants who have required at least two surgical interventions per year for the past three years for the removal of associated papilloma(s)

Primary endpoint: A doubling or more in the time between surgical interventions following the first dose of INO-3107 relative to the frequency prior to study therapy

HPV-Associated Anogenital Disease Burden Overview

Estimated US cases per year :



Sources: [1] Kreisel KM, Spicknall IH, Gargano JW, Lewis FMT, Lewis RM, Markowitz LE, Roberts H, Johnson AS, Song R, St Cyr SB, Weston EJ, Torrone EA, Weinstock HS. **Sexually Transmitted Infections Among US Women and Men: Prevalence and Incidence Estimates, 2018.** Sex Transm Dis. 2021 Apr 1;48(4):208-214. [2a] McClung NM, Gargano JW, Park IU, Whitney E, Abdullah N, Ehlers S, Bennett NM, Scahill M, Nicolai LM, Brackney M, Griffin MR, Pemmaraju M, Querec TD, Cleveland AA, Unger ER, Markowitz LE; HPV-IMPACT Working Group. **Estimated Number of Cases of High-Grade Cervical Lesions Diagnosed Among Women - United States, 2008 and 2016.** MMWR Morb Mortal Wkly Rep. 2019 Apr 19;68(15):337-343. [2b] Inovio Pharmaceuticals, internal estimates from published data 2015-2022). [3] Herring TA; Buzinec P; Bancroft T; Nowak LM; Bhuyan PK; and Briggs M. **Vulvar High-Grade Squamous Intraepithelial Lesion (HSIL): US Epidemiology Burden in the Post-HPV Vaccine Introduction Era of 2015 – 2019.** Poster presentation at the 34th International Papillomavirus Conference, Nov. 15-19, 2021. [4] Herring TA; Buzinec P; Bancroft T; Nowak LM, Skolnik J, Bhuyan PK; and Briggs M. **Anal High-Grade Squamous Intraepithelial Lesion (HSIL): US Epidemiology Burden in the Post-HPV Vaccine Introduction Era of 2015 – 2019.** Oral presentation at the 34th International Papillomavirus Conference, Nov. 15-19, 2021. [5] Siegel RL, Miller KD, Fuchs HE, Jemal A. **Cancer statistics, 2022.** CA Cancer J Clin. 2022 Jan;72(1):7-33. doi: 10.3322/caac.21708. Epub 2022 Jan 12. [6] Centers for Disease Control and Prevention. **Cancers Associated with Human Papillomavirus, United States—2014–2018.** USCS Data Brief, no. 26. Atlanta, GA: Centers for Disease Control and Prevention, US Department of Health and Human Services; 2021.

VGX-3100 Phase 3 Program: HPV-Associated Cervical HSIL

TRIAL: **VGX-3100**

- Targets HPV 16/18 subtypes; E6/E7 oncogenes
- Designed to treat cervical high-grade squamous intraepithelial lesions (HSIL)



Phase 3 consists of 2 studies in parallel:

REVEAL1 (primary) n=201 – Enrollment Closed

Study follow-up through week 88 (as in Phase 2b)

Topline efficacy data reported 1Q21

REVEAL2 (confirmatory) n=198 – Enrollment Closed

Study follow-up through week 40

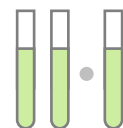
Topline efficacy data expected in Q422

Primary endpoint:
Regression of HSIL (CIN2/3) AND
clearance of HPV 16/18 in the cervix

6 mo.

Primary endpoint measured
six months after completion of
dosing (as in Phase 2b)

2:1 Randomized (2:1), double-
blind, placebo-controlled



Dosing: month 0, 1, 3
(as in Phase 2b)

VGX-3100: Phase 3 Program for HPV-Associated Cervical HSIL

- **REVEAL1: Achieved statistical significance for primary objective in all evaluable participants:** regression of cervical HSIL combined with virologic clearance of HPV subtypes 16/18, 6 months after administration
 - 23.7% (31/131) in treatment group vs. 11.3% (7/62) in placebo group
 - $p=0.022$; 12.4 difference in percentage, 95%CI: 0.4,22.5
 - mITT includes all participants w/ endpoint data (N=193)*
 - All secondary efficacy objectives achieved
- **REVEAL2: Currently ongoing (Topline data by Q422)**
 - Partnership with QIAGEN to develop pre-treatment predictive biomarker to help identify those likely to respond to VGX-3100
 - One or two additional well-controlled trials in the biomarker-positive population post REVEAL2 may be necessary to support approval of a marketing application for VGX-3100

* mITT, ITT and a third per-protocol (PP) were pre-specified in trial protocol. PP analysis will be performed upon trial completion.

Immuno-Oncology

INO-5401 for Newly Diagnosed GBM



INO-5401/INO-9012 and Cemiplimab for Newly Diagnosed GBM

- INO-5401 is a DNA medicine composed of plasmids that encode for three tumor-associated antigens: human telomerase (hTERT), Wilms tumor-1 (WT-1), and prostate-specific membrane antigen (PSMA)
- INO-9012 is a synthetic DNA plasmid that encodes for human IL-12 designed to stimulate T cells locally without a systemic effect
- Cemiplimab is a high-affinity, highly potent, human, hinge-stabilized IgG4 monoclonal antibody to the PD-1 receptor
- In this study, INO-5401 and INO-9012 are combined with cemiplimab, in order to create an antigen-specific, activated T cell population
- **INOVIO has shown that INO-5401+INO-9012 delivered intramuscularly with cemiplimab and 40 Gy radiation/TMZ have an acceptable safety profile and are immunogenic**
- **Abstract providing follow-up Phase 1/2 data (including OS for MGMT-methylated cohort) presented at 2022 ASCO Annual Meeting**

INO-5401 for Newly Diagnosed GBM in Phase 1/2 Study in Collaboration with Regeneron

INO-5401 (encoding tumor-associated antigens: hTERT, WT1, PSMA) plus **INO-9012**, encoding IL-12



Phase 1b/2 open label study for **newly diagnosed glioblastoma (GBM)**



Combination with Regeneron's PD-1 checkpoint inhibitor **cemiplimab**

Primary Endpoints:
Safety, tolerability

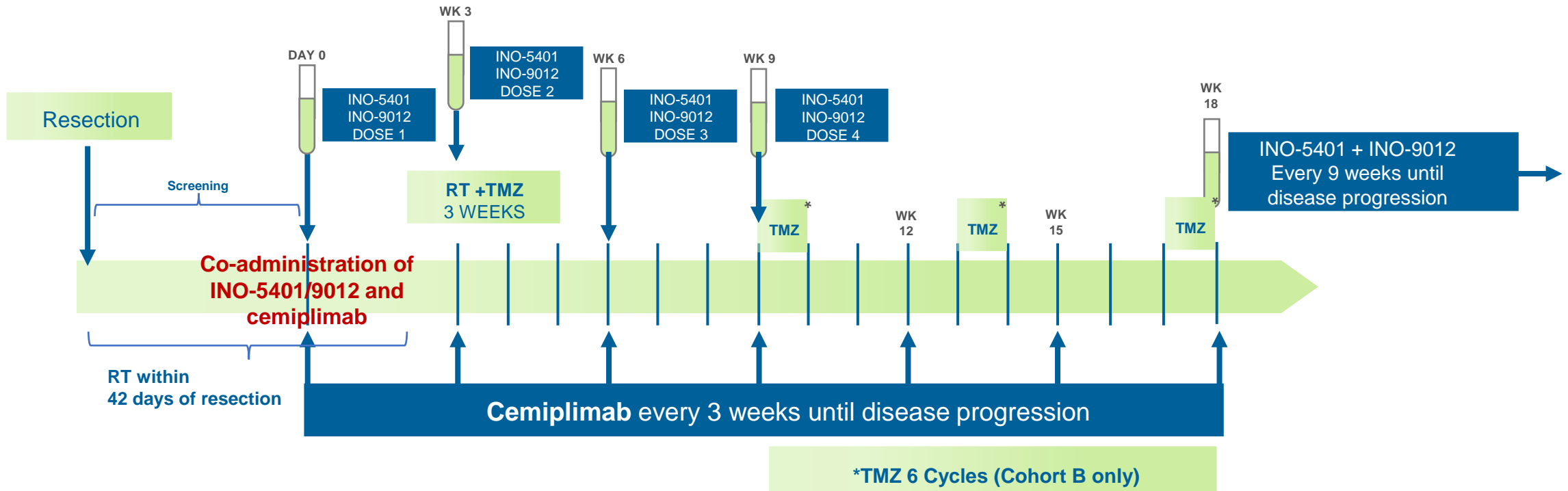
Secondary Endpoints:
Immunological impact, **PFS and OS**

x32

Cohort A:
MGMT Promoter Unmethylated:
32 participants

x20

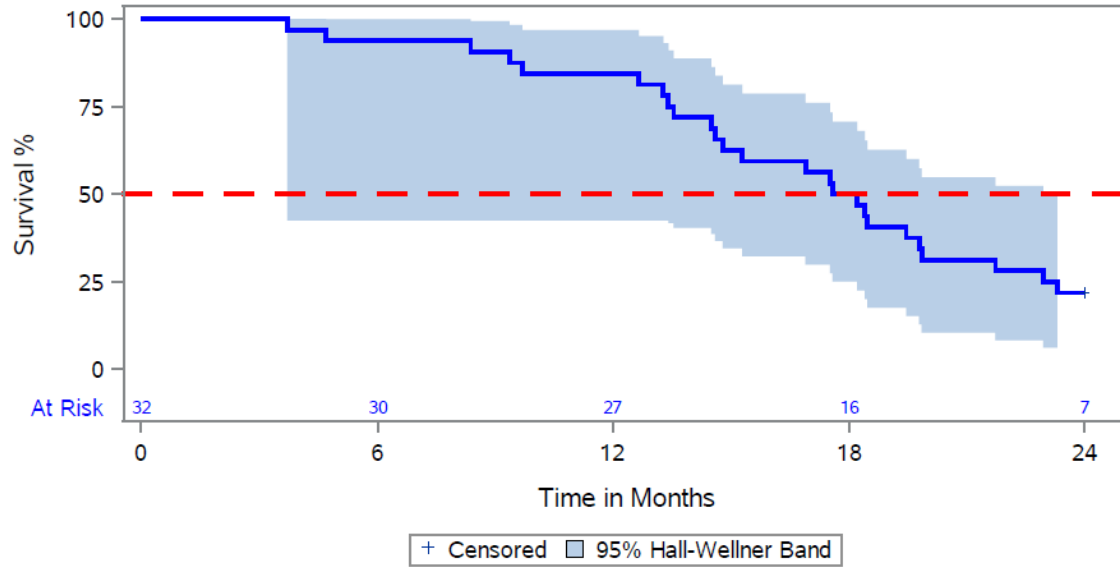
Cohort B:
MGMT Promoter Methylated:
20 participants



Kaplan-Meier Survival Estimates of OS

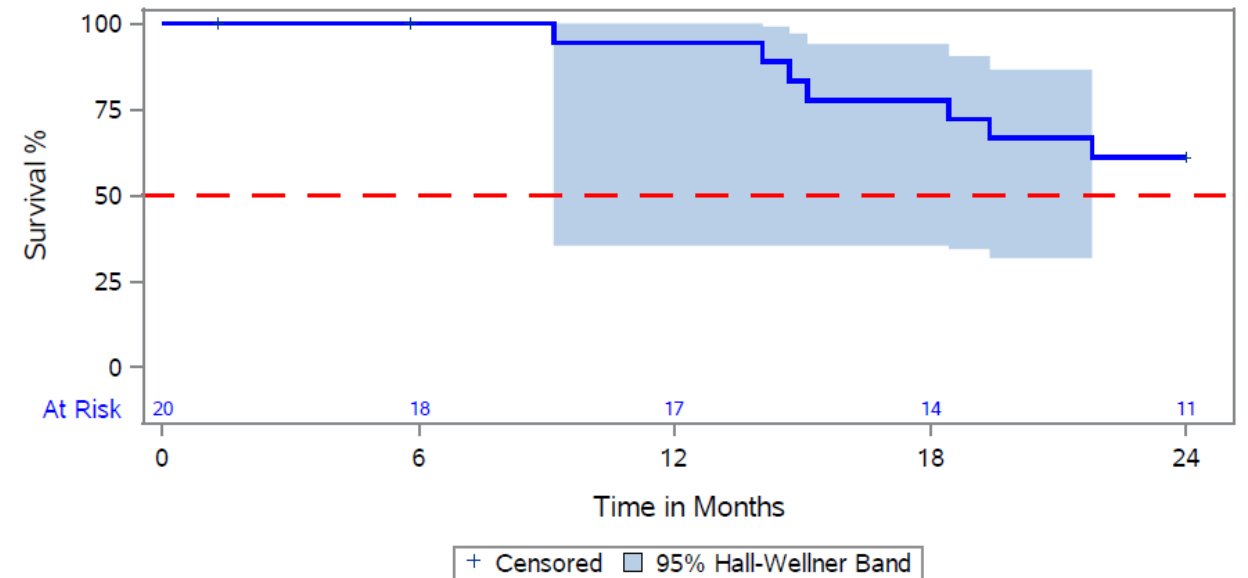
Cohort A:

Figure 16.2.2.3A1: Kaplan-Meier Analysis of Overall Survival
MGMT Unmethylated (mITT)



Cohort B:

Figure 16.2.2.3A2: Kaplan-Meier Analysis of Overall Survival
MGMT Methylated (mITT)



Median OS; unmethylated (A)	17.9 mo. (14.5 – 19.8)	<i>Historical 14.6-16 mo.</i>
Median OS; methylated (B)	32.5 (18.4 – NR)	<i>Historical 23.2-25 mo.</i>
Median OS; combined (A+B)	19.5 (16.9 – 23.3)	-

NR: not reached.

Gilbert et al. J Clin Oncol 2013; Gilbert et al. N Eng J Med 2014. Comparison is limited due to differences in study population.

Data was presented at 2022 ASCO Annual Meeting.

Median OS in GBM-001 is Higher Than Historical Controls

Median OS; unmethylated (A)	17.9 mo. (14.5 – 19.8)	<i>Historical 14.6-16 mo.</i>
Median OS; methylated (B)	32.5 (18.4 – NR)	<i>Historical 23.2-25 mo.</i>
Median OS; combined (A+B)	19.5 (16.9 – 23.3)	

Overall Survival at 12 Months	n Alive/N Total	OS12% (95% CI)
MGMT Unmethylated (Cohort A)	27/32	84.4 (67.2-94.7)
MGMT Methylated (Cohort B)	17/20	85.0 (62.1-96.8)
Combined	44/52	84.6 (71.9-93.1)

Overall Survival at 18 Months	n Alive/N Total	OS18% (95% CI)
MGMT Unmethylated (Cohort A)	16/32	50 (31.9 - 68.1)
MGMT Methylated (Cohort B)	14/20*	70 (45.7 – 88.1)
Combined	30/52	57.7 (14.5 – 71.3)

Overall Survival at 24 Months	n Alive/N Total	OS24% (95% CI)
MGMT Unmethylated (Cohort A)	7/32	21.9 (9.3 - 40)
MGMT Methylated (Cohort B)	11/20*	55 (31.5 – 76.9)
Combined	18/52	34.6 (23.1 – 49.1)

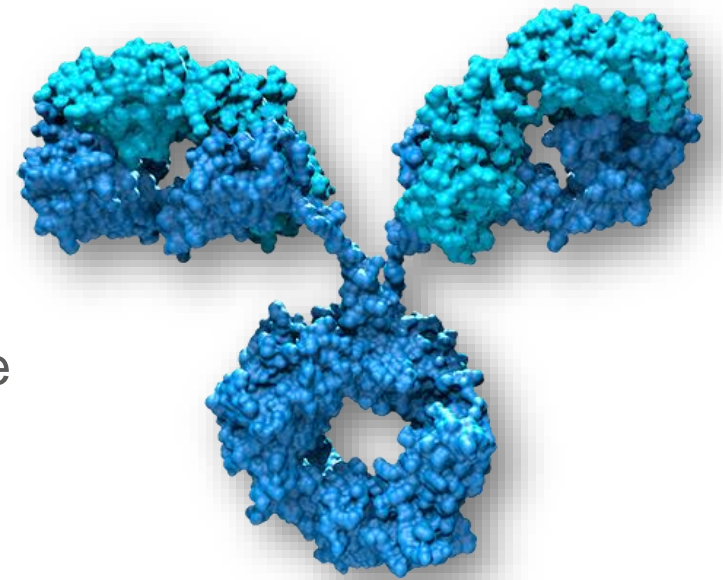
NR: not reached. Two participants in Cohort B withdrew consent for additional follow-up at Week 3 and were considered deceased
 Gilbert et al. J Clin Oncol 2013; Gilbert et al. N Eng J Med 2014. Comparison is limited due to differences in study population.
 Data was presented at 2022 ASCO Annual Meeting.

DNA Encoded Monoclonal Antibodies

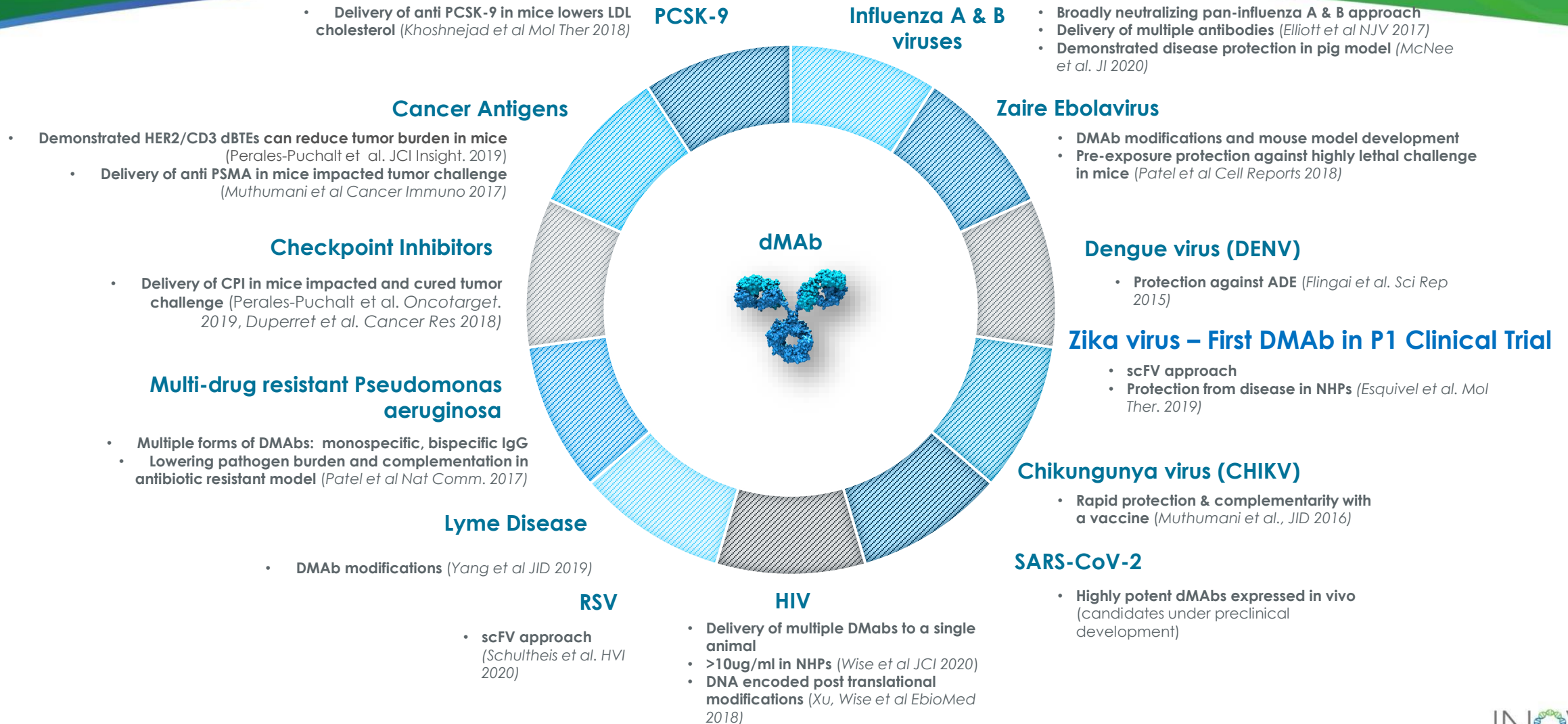


DNA Encoded Monoclonal Antibody (dMAb™) and Bi-Specific T Cell Antibody (dBTA) Platform

- INOVIO is developing a groundbreaking DNA-encoded monoclonal antibody technology (dMAb) enabled by its smart technology platforms, with the potential to be groundbreaking
- The dMAb platform facilitates direct *in vivo* transfection to target tissue to produce and secrete mAbs into the blood at biologically relevant levels
- Additional DNA-encoded bi-specific T cell antibodies (dBTA) are in development for the treatment of cancer
- dMAbs and dBTA are a potentially transformative approach for the prevention and treatment of infectious diseases and cancer
- **First-in-man Phase 1 clinical trial ongoing for Zika dMAb funded by Bill and Melinda Gates Foundation**

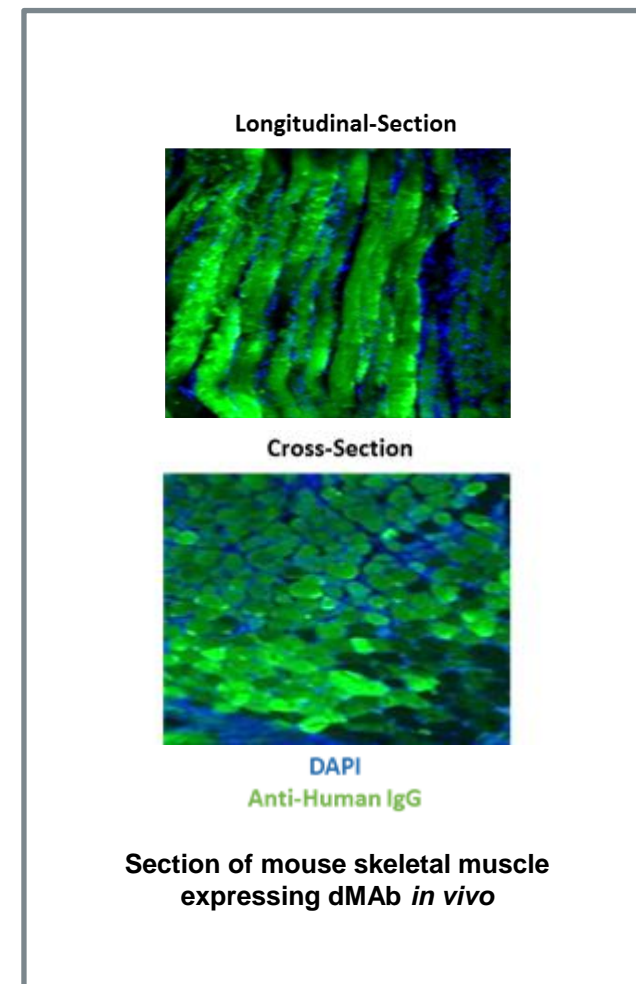
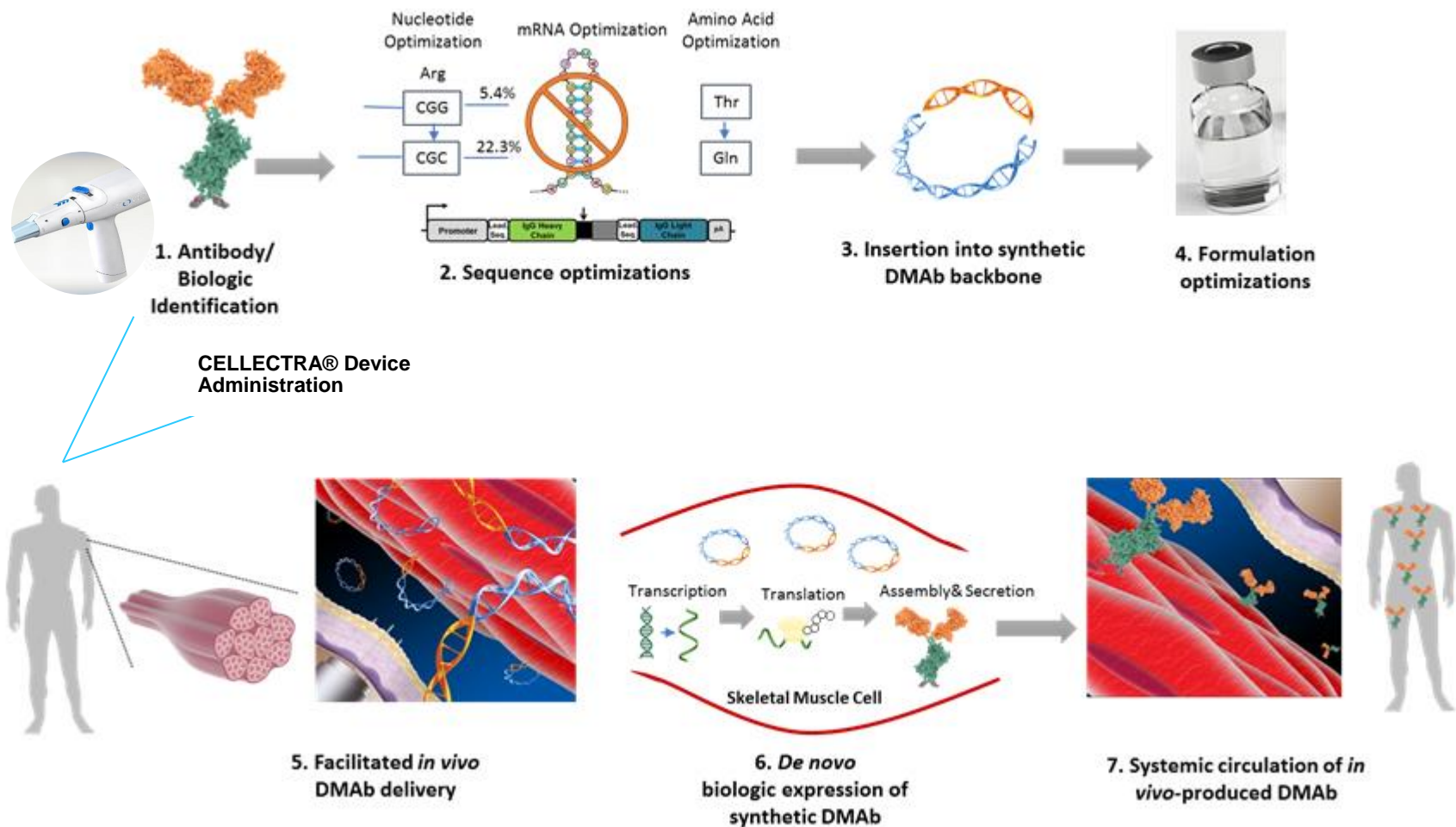


INOVIO's dMAbs/dBTAs May Be Efficacious in Multiple Disease Models

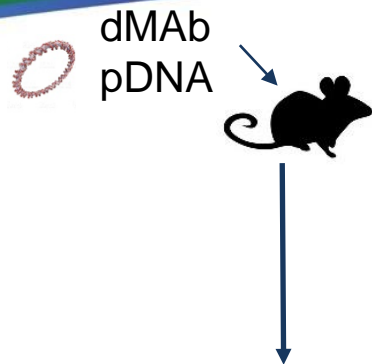


Seeking Product Development Partnerships to Advance Candidates

INOVIO's DNA-Encoded Monoclonal Antibody Platform

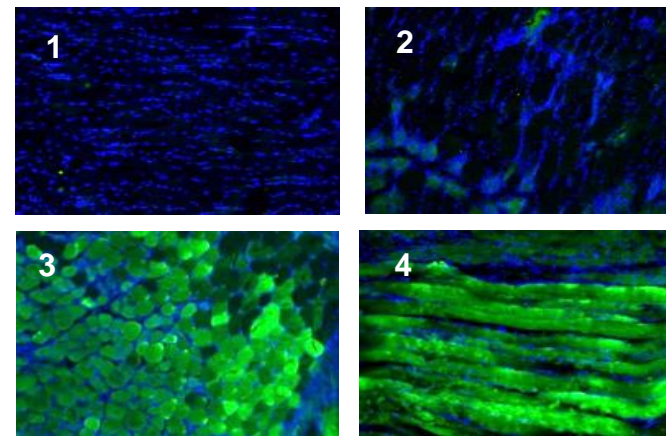


In Vivo Transfer of dMAb pDNA Into Muscle Employing Enhanced Delivery Protocol Results in Robust Levels of Functional mAbs



Measure expression of Human IgG *in vivo*

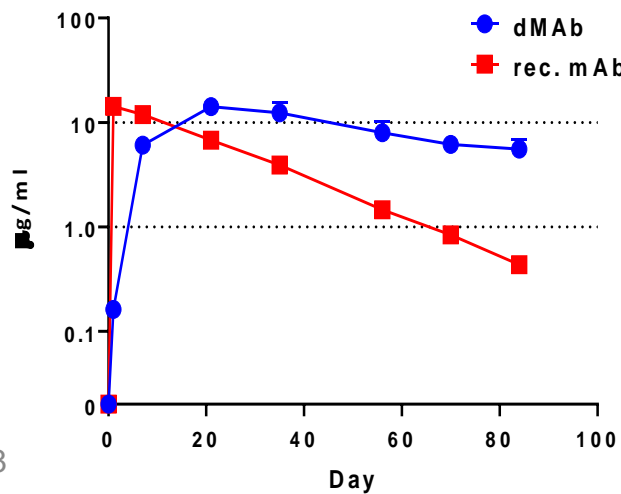
Local expression in muscle:



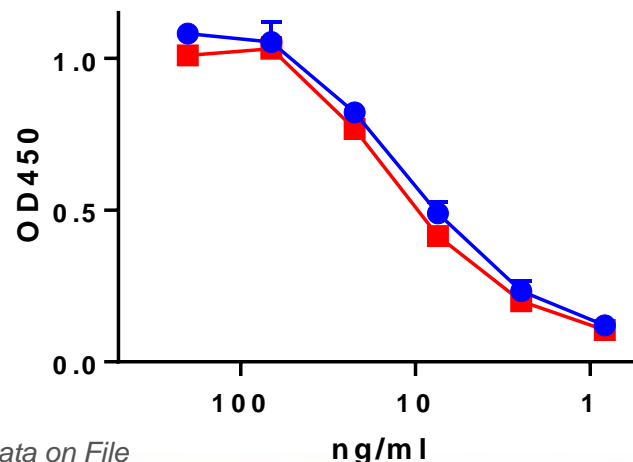
- 1: No Treatment
- 2: Empty plasmid
- 3: dMAb plasmid (perpendicular)
- 4: dMAb plasmid (parallel)

hlgG expression

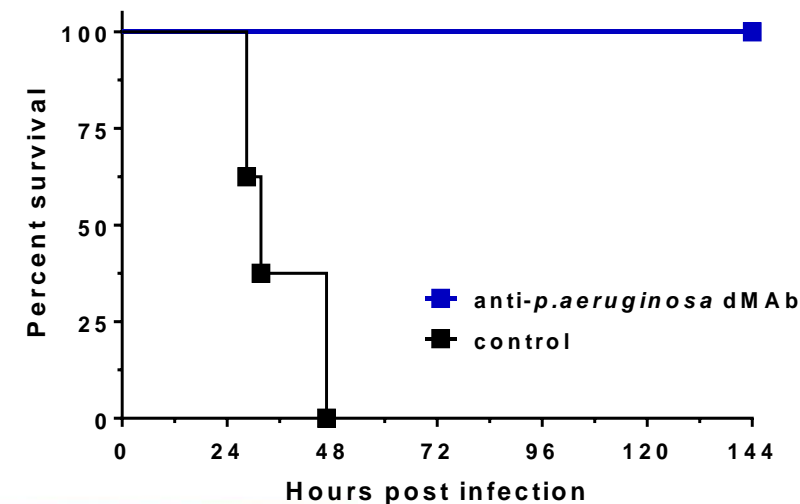
Serum levels



Antigen binding (serum)

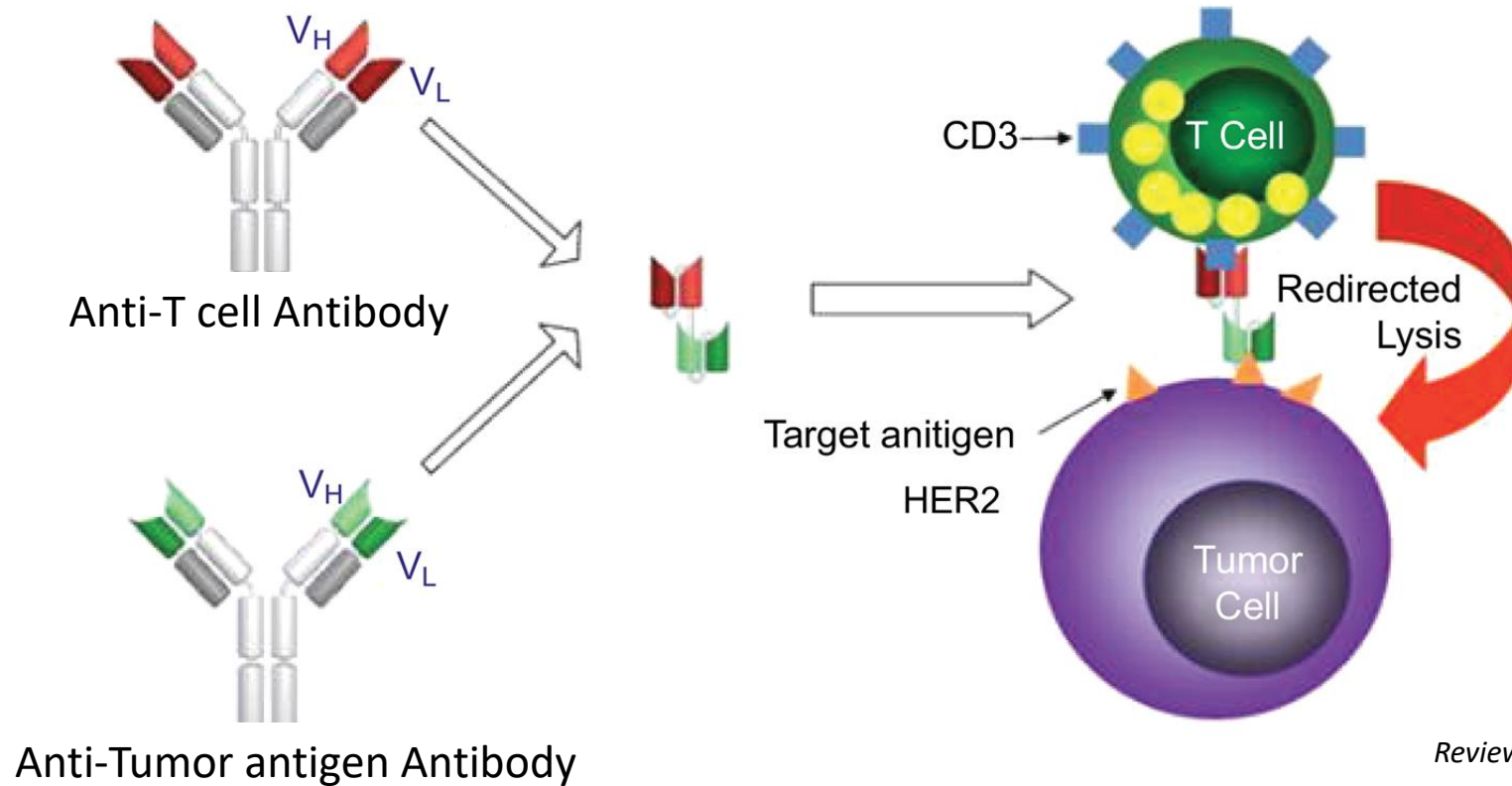


Disease protection



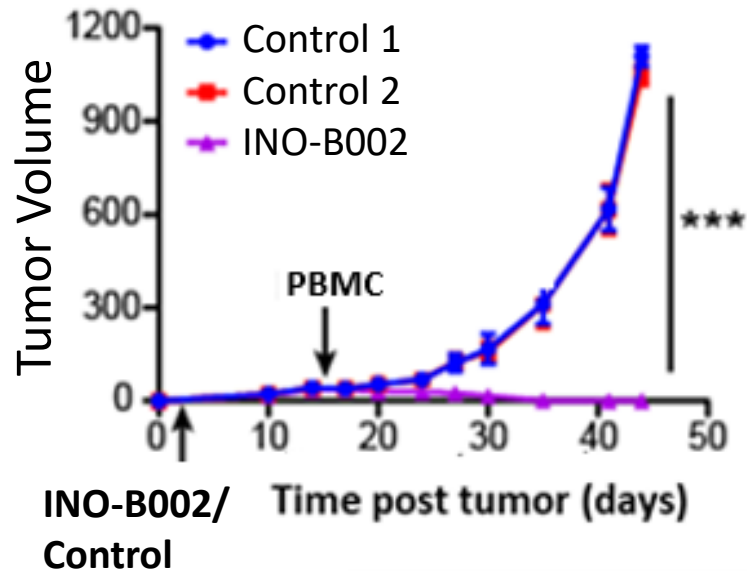
dBTA: DNA Encoded Bi-specific T Cell Antibodies: Connect Killer T Cells to Cancer Cells

A new class of immunotherapeutic molecules for the treatment of cancer



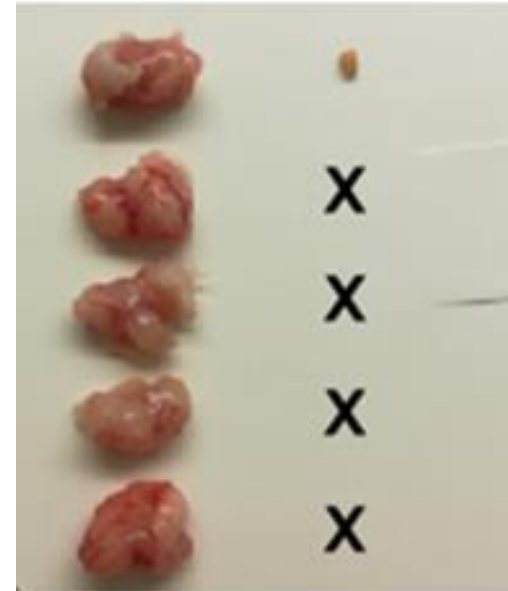
Review Article: Goebeler and Bargou Nature 2020

INO-B002 Treatment Prevents HER2 Tumor Growth in Preclinical Models



Tumor collection on day 45

Control INO-B002



Alfredo Perales-Puchalt et al. JCI Insight 2019

INO-B002 Being Prepared to Enter Phase 1 Clinical Trial

First in Human Trial Ongoing

- A clinical trial of INO-A002 in Healthy Dengue Virus-naive Adults
- Phase 1, open label, single center, dose escalation study (0.5 – 4 mg) to evaluate the safety, tolerability and pharmacokinetic profile of dMAb-ZK190 following delivery of INO-A002 with Hylenex® recombinant delivered IM followed by EP in healthy adult Dengue naïve volunteers ages 18-60 years.
- ClinicalTrials.gov Identifier: NCT03831503



COVID-19 dMAb Updates

- SARS-CoV-2 dMAb cocktail demonstrates
 - Durable expression
 - Activity against SARS-CoV-2 VOCs
 - Protects against disease in multiple animal models
- dMAbs targeting SARS-CoV-2 may provide a pre-exposure prophylactic option with enhanced durability
 - SARS-CoV-2 dMAbs: “A Phase 1, Open-Label, Single Center, Dose Escalation Study of the Safety and Pharmacokinetics of dMAbs in Healthy Adults” (ClinicalTrials.gov Identifier: NCT05293249)



Management & Financials



Experienced Executive Team and Board of Directors



Jacqueline Shea, Ph.D.
President & CEO

- Former CEO/COO of Aeras
- Held management positions at Emergent BioSolutions and Microscience Ltd.



Peter Kies
CFO

- Ernst & Young
- Experience with growth companies



Laurent Humeau, Ph.D.
CSO

- Extensive R&D leadership exp. in vaccine, cell and gene therapy developments at Intrexon and VIRxSYS

Board of Directors

Simon X. Benito

Chairman of the Board, Former SVP, Merck Vaccine Division

Roger Dansey, M.D.

Former Head of Late-Stage Oncology at Merck & Co.

Ann C. Miller, M.D.

Former Head of Sanofi Oncology Global Marketing

Jacqueline Shea, Ph.D.

President & CEO, INOVIO Pharmaceuticals

Jay Shepard

Former President & CEO, Aravive

David B. Weiner, Ph.D.

Executive VP, Director, Vaccine Center, The Wistar Institute

Wendy L. Yarno, Ph.D.,

Former Executive VP and Chief Marketing Officer, Merck

Lota S. Zoth

Former CFO, MedImmune

Well-Balanced Pipeline of Milestones Supported by Strong Balance Sheet

NASDAQ:INO

\$360.4M

Cash and short-term investments

As of March 31, 2022

226.5M

Common stock shares outstanding

As of March 31, 2022

INO-4800

- ✓ 1Q22: Completed enrollment of heterologous and homologous boost Phase 1/2 trials with Advaccine
- ❑ 2Q22: Report full data set from heterologous and homologous boost Phase 1/2 trials with Advaccine

VGX-3100

- ❑ 4Q22/1Q23: Report REVEAL2 efficacy data and safety follow-up through week 40

INO-3107

- ❑ 2H22: Phase 1/2 immune responses and early clinical benefit data

INO-5401

- ❑ 2Q22: Present additional overall survival data including median OS for MGMT-methylated cohort at ASCO 2022

Platform Development

- ❑ 1H22: Initiate COVID-19 dMAb trial
- ❑ 1H22: Report INO-4500 Lassa Phase 1b data
- ❑ 2H22: Report INO-4700 MERS Phase 2 data
- ❑ 2H22: Report INO-4201 Ebola Phase 1b booster data