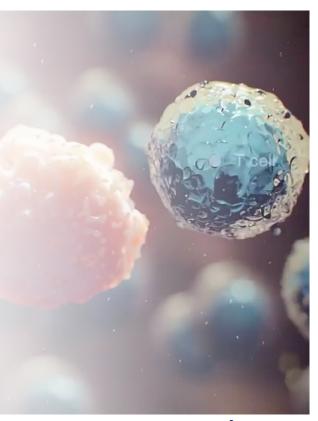


## **Forward Looking Statements**

Certain statements in this presentation may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act. These statements are based on management's current expectations and are subject to uncertainty and changes in circumstances.

Actual results may differ materially from those included in these statements due to a variety of factors, including whether: GeoVax can develop and manufacture its vaccines with the desired characteristics in a timely manner, GeoVax's vaccines will be safe for human use, GeoVax's vaccines will effectively prevent targeted infections in humans, GeoVax's vaccines will receive regulatory approvals necessary to be licensed and marketed, GeoVax raises required capital to complete vaccine development, there is development of competitive products that may be more effective or easier to use than GeoVax's products, GeoVax will be able to enter into favorable manufacturing and distribution agreements, and other factors, over which GeoVax has no control.

GeoVax assumes no obligation to update these forward-looking statements and does not intend to do so. More information about these factors is contained in GeoVax's filings with the Securities and Exchange Commission including those set forth at "Risk Factors" in GeoVax's Form 10-K.





# **GeoVax:** Phase 2 clinical-stage biotechnology company developing **immunotherapies** and **vaccines** against a wide range of **cancers** and **infectious diseases**



**Innovate** 



**Differentiate** 



Accelerate



**Collaborate** 



Unique, patented products addressing unmet medical needs



Targeting populations underserved by existing products/standard of care



Pursuing expedited registration pathways



Worldwide distribution and administration via business collaborations



A compelling **opportunity** with a value-driven **strategy** 







## Gedeptin®: U.S. Medical Need

#### **Target Cancer Patient Populations**

- Advanced Head & Neck (initial indication; Orphan Drug Status)
- Earlier-Stage Head & Neck
- Breast

- Prostate
- Colon
- Ovarian
- Pancreatic
- Lung

#### **Patient Characteristics**

"Needle-accessible" solid tumors



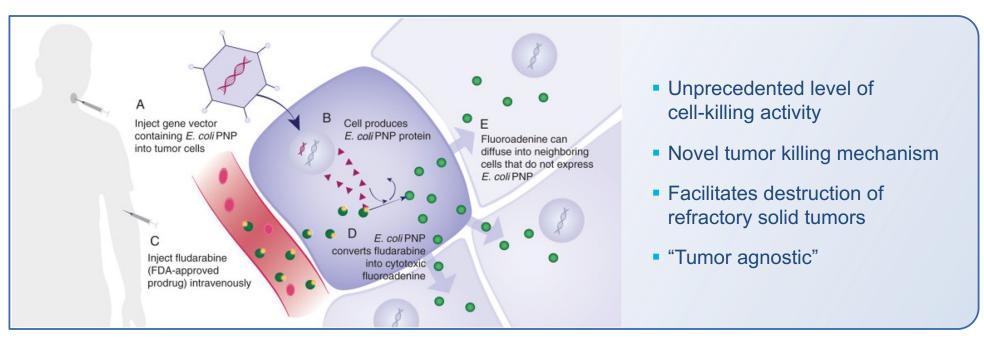
#### **Patient Prevalence (U.S.)**

- Advanced Head & Neck Cancer (deaths/yr) 16,000
- Early-Stage Head & Neck Cancer (new dx/yr) 71,000
- Other Solid Tumors (deaths/yr) 321,000

Source: American Cancer Society (ACS) Cancer Facts & Figures 2024



## **Gedeptin® Mechanism of Action**



Phase I dose-escalating trial of Escherichia coli purine nucleoside phosphorylase and fludarabine gene therapy for advanced solid tumors - PMC (nih.gov)



## Gedeptin® Clinical Data\*

#### Phase 1/2 study of Ad/PNP with fludarabine for the treatment of head & neck squamous cell carcinoma



Stanford Cancer Institute







A. Dimitrios Colevas<sup>1\*</sup>, Eric J. Sorscher<sup>2\*</sup>, William Parker<sup>3</sup>, Roan Courtney Raymundo<sup>1</sup>, Jeong S. Hong<sup>2</sup>, Regina Rab<sup>2</sup>, Camilo Henao<sup>4</sup>, Nikki Schmitt<sup>2</sup>, Madison Stallings<sup>2</sup>, Kelly T. McKee, Jr.<sup>5</sup>, Eben Rosenthal<sup>6</sup>, Joseph Curry<sup>4</sup>



Evaluation of Gedeptin® as an experimental therapy for refractory tumors (NCT03754933)



Safety and efficacy of repeat cycles of Gedeptin<sup>®</sup> therapy in patients with recurrent head and neck squamous cell carcinoma (HNSCC) with tumor(s) accessible for injection and no curable treatment options



Data highlights (8 patients):

- No dose limiting toxicities or serious adverse events (SAEs) are attributable to treatment
- No adverse events above grade 3 severity
- Up to 5 cycles of Gedeptin® treatment administered without limiting sequelae
- Intratumoral expression of the PNP transgene bt RT-PCR established in treatment tumors to date
- Impaired tumor growth (i.e., stable disease using RECIST 1.1 evaluation criteria) in targeted lesions seen in 5 of 7 patients (tumor response assessment in 1 patient remains under study)



Conclude from interim analysis that administration of Gedeptin® is safe and feasible

<sup>\*</sup> Poster presentation at the July 10, 2023 American Association for Cancer Research (AACR) and the American Head and neck Society (AHNS) joint Head and Neck Cancer Conference in Montreal, QC, Canada 1. Stanford Cancer Institute, Stanford University; 2. Emory University School of Medicine; 3. PNP Therapeutics, Inc.; 4. Thomas Jefferson University; 5. GeoVax Laboratories; 6. Vanderbilt University



## **Gedeptin® Clinical Development Plans**



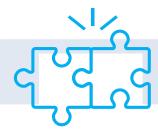


- Completed initial Ph 2 trial (FDA funded), validating safety and tumor shrinkage
- Initiate expanded Ph 2 trial focused on expedited registration



Secondary Focus: Additional Solid Tumor Indications (Mono-therapy)

Clarify next mono-therapy indication and protocol



Tertiary Focus:
Combination-Therapy
(in conjunction with ICIs)

- Complete current preclinical studies of Gedeptin in conjunction with ICIs
- Clarify initial clinical indication and trial of Gedeptin + ICI therapy



Global Development & Commercialization via Collaborations/Partnering







## **GEO-CM04S1**



Targeting Immunocompromised patients



50+ million adults in the U.S.



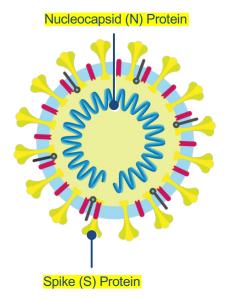
> 400 million adults Worldwide

Data estimate based on: (a) data from the most recent (2021) U.S. National Health Interview Survey; and (b) summation of various medical conditions and treatments associated with immunocompromised conditions, or weakened immune systems



## Critical Importance of Both Antibodies & T-cells for Protection

## GEO-CM04S1 S+N Proteins are Co-Expressed



Immune Responses for Protection against Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2)

COVID-19 Disease Severity				
	Asymptomatic Infection	Symptomatic Infection	Severe Disease, Hospitalization	Death
Antibodies	++++	+++	++	++
T Cells	+	++	++++	<mark>++++</mark>

Both humoral (antibody) and cellular (T cell) immune responses contribute to protection against SARS-CoV-2. "+" signs denote the relative importance of antibodies and T cells for protection at each stage of disease severity, with more "+" signs indicating greater importance/protection.



## **GEO-CM04S1**







**COVID-19 Vaccine** 

**More robust -- "Variant Agnostic"** 

More durable – longer duration

# GeoVax platform (MVA): recognized safety, potent, durable, minimal refrigeration/freeze-dried delivery

- Current vaccines do not provide sufficient protection for those with depleted immune systems
- GEO-CM04S1: More robust, durable protection than authorized vaccines reduces need for boosters
- Can be used as booster to existing vaccines or stand-alone for immune compromised patients



## **GEO-CM04S1 – Phase 2 Clinical Trials**



#### Immunocompromised/stem cell transplant patients

- Patients with hematologic malignancies receiving stem-cell transplantation or CAR-T therapy
  - Highest at-risk groups for severe infection, hospitalization and death
  - Primary vaccine in direct comparison to mRNA vaccines



#### Immunocompromised/Chronic Lymphocytic Leukemia (CLL) patients

- High at-risk population with abated antibody response
  - Major, currently unmet, medical need for alternative immune enhancement response (e.g., T-cells)
  - Booster vaccine in direct comparison to mRNA vaccine

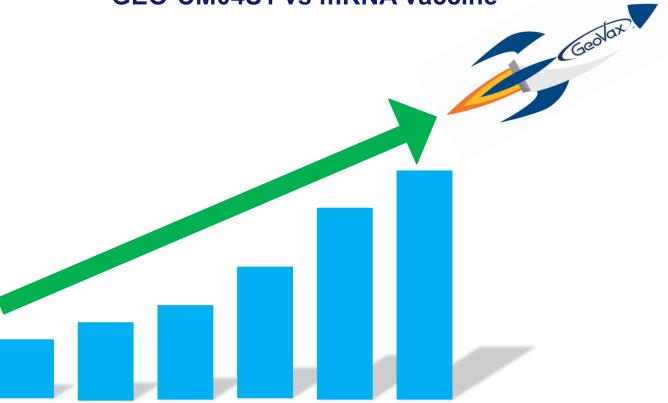


#### **Booster to mRNA vaccine**

- Healthy population following vaccination with an mRNA vaccine
  - Potential for broader and more durable protection versus multiple, continuous mRNA doses



# BARDA Project NextGen Award Valued at \$350+ Million to Conduct Phase 2b Clinical Study Evaluating Next-Generation COVID-19 Vaccine Candidate, GEO-CM04S1 vs mRNA vaccine



GeoVax

## **GEO-CM04S1 Development Plan**

- Validate the Differentiation of GEO-CM04S1
   Addressing Immunocompromised Patients
  - Broader (Variant Agnostic), more durable (6-12+ months) protection
  - "Preferred COVID-19 vaccine for immunocompromised patients"
- Expedited Registration Focused on Immunocompromised Patient Populations





Global Development & Commercialization via Collaborations/Partnering







## **GEO-MVA**

Focused on expedited registration for 1st U.S.-sourced vaccine against Mpox & Smallpox



- Currently one supplier worldwide unable to meet demand
- High federal government interest in establishing a U.S. based supplier
- HHS interest in replenishing/re-stocking Strategic National Stockpile (SNS)
- GeoVax rapidly advancing development



## **GEO-MVA: U.S. Medical Need**

#### **Target Patients Candidates For**

- Smallpox (Strategic National Stockpile)
- Mpox (Monkeypox)

#### **Customer Profile**

- Smallpox: U.S. Government Strategic National Stockpile (SNS)
- Mpox: Adults at risk



#### **U.S. Stockpile Target Requirement**

- 66M at risk Americans
- 132M doses



#### **US At Risk Population**

- 7M Adult Males at risk\*
- 14M doses



<sup>\*</sup>Source: Mpox cases reported to CDC: Age and Gender (August 23, 2023);

<sup>\*</sup>Gallup Poll: LGBT Identification (Feb 2022)





## **2024 Milestones & Catalysts**



# **GEO-CM04S1 (Next-Generation COVID-19 Vaccine) – Phase 2 Clinical Trial Program**

- Immunocompromised/stem cell transplant patients: Interim data H2
- Immunocompromised/Chronic Lymphocytic Leukemia (CLL) patients: Interim data H2
- Healthy patient booster trial: Initial Data H1;
   Study results H2



# Gedeptin<sup>®</sup> (Solid Tumor Therapy) – Phase 2 Clinical Trial Program

- Initial Ph 1/2: Study results H1
- Plans for expanded Ph 2 study: H1
- Updates & Plans re Gedeptin + ICI: H2



#### GEO-MVA (Mpox; Smallpox)

Identify expedited regulatory registration pathway: H2



# Advanced Continuous Cell-line MVA Manufacturing

- Initial GMP manufacturing for GEO-CM04S1 and GEO-MVA: Completed
- Process development for continuous cell-line manufacturing: H2



## GeoVax Clinical Portfolio: U.S. Revenue Opportunity

Product	Disease	Target	Est'd U.S. Market Revenue Potential \$(Billion)
GEO-CM04S1	COVID-19	Primary Vaccine For Immune Compromised Patients	\$ 15.0
Gedeptin®	Cancer	Advanced Head & Neck Cancer	\$ 2.8
Gedeptin®	Cancer	Early-Stage Head & Neck Cancer	\$ 12.4
GEO-MVA	Smallpox/Mpox	US Strategic National Stockpile & Adult Men at High Risk of Mpox	\$ 9.4

~\$40 Billion in U.S.
Market Revenue
Potential



## **GeoVax Strategy**



**Innovate** 



Differentiate



Accelerate



**Collaborate** 



Unique, patented products addressing unmet medical needs



Targeting populations unserved by existing products/standard of care



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