

INSTITUTIONAL RESEARCH

BiotechnologyUPDATE REPORT

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GeoVax Labs Inc. (GOVX) - Marburg

April 19, 2023

Buy Rated: Expansion of COVID to Variants

GeoVax announced the expansion of its rights under its license agreement with City of Hope to include development and commercialization rights against orthopoxviruses in addition to SARS-CoV-2. The original license agreement provides GeoVax exclusive worldwide rights to key patents, including the use of proprietary synthetic MVA (sMVA) process, for developing COVID-19 vaccines, including GEO-CM04S1 (CM04S1), a multi-antigenic SARS-CoV-2 investigational vaccine expressing the spike and nucleocapsid antigens of the SARS-CoV-2 virus.

GEO-CM02 – A Covid vaccine for immunocompromised patients. The company is applying its novel Modified Virus Ankara - Virus-Like Particle (GV-MVA-VLPTM) platform to create an effective Covid vaccine for immunocompromised patients where the current vaccines fall short. This vaccine has been shown to induce a balanced antibody and cellular (T-cells) response against the multiple encoded immunogens, potentially limiting immune escape by emerging variants. Expression of the SARS-CoV-2 spike (S), membrane (M), and envelope (E) proteins by MVA supports the in vivo formation of virus-like particles (VLPs), which induce both antibody and T-cell responses.

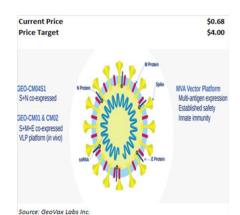
Clinical Data: Data from a Phase 1 study of GEO-CM04S1 were published in The Lancet Microbe. This peer-reviewed publication reports data showing that GEO-CM04S1 produced robust neutralizing antibodies and T cells against SARS-CoV-2 with no significant side effects. These data confirm the powerful dual action of the GeoVax vaccine, an important feature given the multiple spike antigen mutations, leading to variants of concern and inconsistent protection from existing FDA-approved vaccines. Should a new mutation arise in the spike antigen that interferes with antibody recognition, a person vaccinated with GEO-CM04S1 may have substantial T-cell immunity against both the nucleocapsid and spike antigens.

Phase 2: GeoVax has been focused on advancing its two Phase 2 clinical studies of GEOCM04S1 against COVID-19, one as a primary vaccine for immunocompromised cancer patients in direct comparison to the Pfizer (PFE-Not rated) mRNA vaccine, and the second as a booster for healthy patients who have previously received either the Pfizer or Moderna vaccine as their initial inoculation.

Valuation: Our valuation is based on Gadeptin and Covid Vaccines (only). We project our model out to 2033. We apply a 30% success probability to our projected revenues in our product model in addition to our 30% risk rate applied in our Free Cash Flow to the Firm (FCFF), discounted EPS (dEPS), and Sum-of-the-Parts (SOP) models. We use a fully diluted out-year share count, assuming multiple raises. The result is equal-weighted and averaged, and rounded to the nearest whole number to derive our 12-month projected price target of \$4.0.

Risks to our thesis include: 1. Regulatory Approvals; 2. Capital Requirements 3. Adoption Rates 4. Intellectual Capital 5. Dilution.

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Stock Data	
52-Week Range \$0.53 -	\$4.30
Shares Outstanding (mil.)	26.3
Market Capitalization (mil.)	\$18
Enterprise Value (mil.)	-\$10
Debt to Capital	0%
Book Value/Share	-
Price/Book	0.6
Average Three Months Trading Volume (K)	640
Insider Ownership	1.1%
Institutional Ownership	8.1%
Short interest (mil.)	3.1%
Dividend / Yield	\$0.00/0.0%





Our valuation for GeoVax is based on Gadeptin and the Covid vaccine programs only. We do this for conservatism with the understanding that proof of concept in either of the programs has broader implications for the market opportunity for the products and expansion of the platform. We provide our "simplified" product models and assumptions as follows:

Gadeptin

- 1. We assume a treatable patient population of 22,000.
- 2. We assume orphan-like drug pricing at \$125,000 per complete therapeutic course.
- 3. We apply just a 30% probability of success given the early nature of the program.

Covid – Immune Compromised Patients

- 1. We assume 10% of the total population is treatable for a multitude of reasons for a Covid vaccine that is effective in immune-compromised patients. Our thinking considers patients undergoing cancer treatment, organ transplants, and patients taking therapies such as those for psoriasis, arthritis, and other related therapies that put these groups at risk.
- 2. We assume a modest cost of therapy of just \$50.00.
- 3. We apply just a 30% probability of success given the early nature of the program.

Exhibit 1. Gadeptin Model

Head & Neck Cancers	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Disease Prevalance	66,470	67,135	67,806	68,484	69,169	69,861	70,559	71,265	71,977	72,697	73,424
3rd line	21,935	22,154	22,376	22,600	22,826	23,054	23,285	23,517	23,753	23,990	24,230
Market Share				10%	12%	14%	18%	22%	26%	33%	35%
Cost of Therapy			\$	125,000 _\$	125,000 _\$	125,000 _\$	125,000 _\$	125,000 \$	125,000 \$	125,000 \$	125,000
Revenue (\$) - M				282	342	403	524	647	772	990	1,060
Probability of Success				30%	30%	30%	30%	30%	30%	30%	30%
Risk Adjusted U.S. Revenue (\$M)			\$	85 \$	103 \$	121 \$	157 \$	194 \$	232 \$	297 \$	318

Exhibit 2. Gadeptin Model

Covid - Immune Compromised Patients	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Population	325,000,000	325,000,000	325,000,000	325,000,000	325,000,000	325,000,000	325,000,000	325,000,000	325,000,000	325,000,000	325,000,000
Immune Compromised				10%	11%	12%	13%	14%	15%	15%	15%
Cost of Therapy	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50	\$50
Market Share	10%	10%	10%	10%	20%	30%	40%	50%	51%	52%	53%
Revenue (\$) - M			\$	163	\$ 358	\$ 585	\$ 845	\$ 1,138	\$ 1,243	\$ 1,268	\$ 1,292
Probability of Success				30%	30%	30%	30%	30%	30%	30%	30%
Risk Adjusted U.S. Revenue (\$M)			\$	49	\$ 107	\$ 176	\$ 254	\$ 341	\$ 373	\$ 380	\$ 388

Risks to our thesis include 1. Regulatory Approvals; 2. Capital Requirements 3. Adoption Rates 4. Intellectual Capital 5. Dilution.

- **Regulatory Approvals**. The company's products require regulatory approvals, and there can be no assurances that the requirements to achieve these approvals can be met.
- Capital Requirements: The business requires continued funding; there can be no assurances that the company will be able to raise the needed capital to continue operations.
- **Adoption Rates**: There are no assurances that the projected market share can be met. A combination of factors from pricing and reimbursement to competitive performance are expected to be key factors in driving users to administer these drugs.
- The Competitive Landscape & IP. The company does have intellectual property and knows how to preserve its competitive position. However, the company may face competition from well-financed competitors who are already in position in the target markets.
- **Dilution**: The company is likely to incur losses for the foreseeable future until it is able to generate sufficient revenue from product sales. Our model assumes a rising share count. There can be no assurances that the company can successfully raise the capital required to execute its business strategy.



Exhibit 3. Income Statement

GeoVax: Income Statement '000																								
000 .: YE December 31	1Q22A	2Q22A	3Q22A	4Q22A	2022A	1023E	2Q23E	3Q23E	4Q23E	2023E	1Q24E	2Q24E	3Q24E	4Q24E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033
Risk Adjusted Product sales Projections																								
Gadeptin																	84,749	102,716	121,034	157,171	194,019	231,588	296,877	318,01
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COVID Immuno-compromised																	48,750	107,250	175,500	253,500	341,250	372,938	380,250	387,56
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Grant Revenue	82			-	82																			Ì
Total Product Sales	82	-	•	•	82	•	•	•	•	•	-	-	•	-	•	•	133,499	209,966	296,534	410,671	535,269	604,525	677,127	705,58
Expenses																,	,	-	-	-	-		,	Ì
cogs																	26,700	,	,			120,905	135,425	
COGS %	0%	0%	0%	0%		0%	0%	0%	0%		0%	0%	0%	0%			20%	20%	20%	20%	20%	20%	20%	20%
Research and Development	1,331	1,307	2,721	3,765	9,123	2,628	2,737	2,737	2,847	10,948	3,153	3,284	3,284	3,416	13,138	15,765	18,918	22,702	22,929	25,222	30,266	36,320	43,584	52,30
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General and Administrative	1,179	935	1,249	1,623	4,987	1,209	1,259	1,259	1,309	5,036	1,221	1,272	1,272	1,323	5,087	10,000	22,000	30,000	30,300	30,603	30,909	31,218	31,530	31,84
Total Operating Expenses	2,510	2,242	3.971	5.388	14.110	3.836	3,996	3,996	4.156	15.985	4.374	4.556	4,556	4,738	18,225	25.765	67.618	94,695	112 536	137.959	168,229	188,443	210,540	225.26
Loss from Operations	(2,428)	(2,242)	(3,971)	(5,388)	(14,029)	(3,836)	(3,996)	(3,996)	(4,156)	(15,985)	(4,374)	(4,556)	(4,556)	(4,738)	(18,225)	(25,765)	65,881	115,271	183,998	272,712		416,082	466,588	
Other (income) Expenses	` ' '	, ,	(-,-,	(-,,	, ,, ,,	(-,,	(-,,	(-,,	(, ,	(1,111,	()- /	(,,	(,,	(,,	(-, -,	(-,,	,		,	,	,	.,	,	1
Interest Income	1	1	2	4	7					-														Ì
Interest Expense				-																				Ì
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				.																				Ì
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Total other (income) expense	(1)	(1)	2	4	7		-	-			-		-	-		-		-	-	-	_			Ì
Net Loss	(2,428)	(2,242)	(3,968)	(5,384)	(14.021)	(3.836)	(3,996)	(3,996)	(4.156)	(15,985)	(4.374)	(4.556)	(4.556)	(4.738)	(18,225)	(25,765)	65,881	115.271	183,998	272,712	367.039	416.082	466,588	480,31
		• • •	-	. 7	-	-			. 7	_	· · ·				·		6,588	23,054	55,199	-	139,475	158,111	177,303	
Tax Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	20%	30%	35%	38%	38%	38%	38
GAAP Net Income (loss)	(2,428)	(2,242)	(3,968)	(5,384)	(14,021)	(3,836)	(3,996)	(3,996)	(4,156)	(15,985)	(4,374)	(4,556)	(4,556)	(4,738)	(18,225)	(25,765)	59,293	92,216	128,798	177,262	227.564	257,971	289,285	297,79
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GAAP-EPS	(0.34)	(0.18)	(0.17)	(0.14)	(0.83)	(0.16)	(0.16)	(0.11)	(0.12)	(0.55)	(0.13)	(0.10)	(0.10)	(0.11)	(0.43)	(0.57)	1.31	2.03	2.82	3.87	4.95	5.59	6.24	6.4
		(0.18)	(0.17)		(0.83)	(0.16)	(0.16)	(0.09)	(0.09)	(0.46)	(0.10)	(0.08)	(0.08)	(0.09)	(0.35)	(0.47)	1.07	1.66	2.31	3.16	4.05	4.57	5.10	
	(0.34)																							
GAAP EPS (dil) Wgtd Avg Shrs (Bas) ' 000	(0.34) 7.109	12.722	23.462	(0.14) 24.680	16,973	24.705	24.729	34.754	34.789	29,744	34.824	44.858	44.903	44.948	42.383	45.061	45.241	45,422	45.604	45.787	45.971	46.155	46.340	

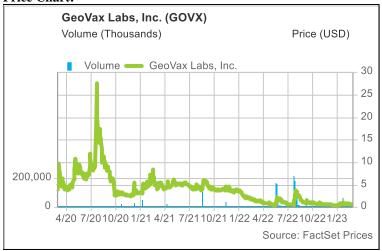
Source: Dawson James estimates, company reports



Companies mentioned in this report:

Important Disclosures:





Price target and ratings changes over the past three years:

Initiated – Buy – March 3, 2023 – Price Target \$4.0

Update Report – Buy – March 24, 2023 – Price Target \$4.0

Update Report – Buy – April 6, 2023 – Price Target \$4.0

Update Report – Buy – April 11, 2023 – Price Target \$4.0

Update Report – Buy – April 19, 2023 – Price Target \$4.0

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Current as of 17-Apr-23

	Company Coverage		Investment Banking	
				% of
Ratings Distribution	# of Companies	% of Total	# of Companies	Totals
Market Outperform (Buy)	25	69%	2	6%
Market Perform (Neutral)	11	31%	1	3%
Market Underperform (Sell)	0	0%	0	0%
Total	36	100%	3	9%

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