Zacks Small-Cap Research

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GeoVax Labs Inc. (GOVX-OTC)

GOVX: Zacks Company Report

Entering into HBV, Zika, Cancer immunotherapy market

Current Price (26/08/2016)	$0.09
Valuation	**$0.25**

UPDATE

GeoVax continues to move forward with its various vaccine programs.

We expect the HVTN114 trial to start enrolling patients in September 2016. Additionally, GeoVax recently was awarded two grants to support the development of its Clade C HIV vaccine program and GOVX-B11 HIV program. The entry into HBV and oncology immunotherapy further expands pipeline.

We continue to believe that there is an upside potential to the company shares.

SUMMARY DATA

52-Week High	**$0.15**
52-Week Low	**$0.07**
One-Year Return (%)	**-39.29**
Beta	**0.28**
Average Daily Volume (sh)	**954,820**
Shares Outstanding (mil)	**44**
Market Capitalization ($mil)	**$4**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**N/A**
Insider Ownership (%)	**N/A**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**10.5**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/A**
P/E using 2015 Estimate	**N/A**
P/E using 2016 Estimate	**N/A**

Risk Level	**Above Avg.,**
Type of Stock	**Small-Growth**
Industry	**Med-Biomed/Gene**
Zacks Rank in Industry	**N/A**

ZACKS ESTIMATES

Revenue
(in millions of $)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2015	0.10 A	0.07 A	0.09 A	0.16 A	0.43 A
2016	0.05 A	0.17 A	0.15 E	0.15 E	0.51 E
2017					1.00 E
2018					1.50 E

Earnings per Share
(EPS is operating earnings before non recurring items)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2015	-$0.02 A	-$0.02 A	-$0.02 A	-$0.02 A	-$0.08 A
2016	-$0.04 A	-$0.02 A	-$0.02 E	-$0.02 E	-$0.09 E
2017					-$0.06 E
2018					-$0.07 E

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WHAT'S NEW

Update on Second Quarter Financials

Total revenue was $166,280 for the three-month ended June 30, 2016, related to grants from the NIH in support of its HIV/AIDS vaccine development efforts. This compares to $71,474 of grant revenue reported for the comparable periods of 2015. As of June 30, 2016, there is $921,083 in approved grant funds remaining and available for use.

R&D expenses were $397,576 for the three-month ended June 30, 2016, as compared to $384,653 for the comparable periods of 2015. R&D expenses included direct costs funded by NIH grants, as well as other vaccine manufacturing and testing costs.

General and administrative (G&A) expenses were $344,818 for the three-month ended June 30, 2016, as compared to $364,889 for the comparable period of 2015.

Net loss for the second quarter of 2016 was $575,835 ($0.02 per share), compared to a net loss of $676,203 ($0.02 per share) for the same period in 2015.

As of June 30, 2016, **cash balances** were $215,130, as compared to $1,060,348 at December 31, 2015. During July and August (thru August 4) the Company received $344,500 in net proceeds from the exercise of outstanding stock purchase warrants.

In **early August**, GeoVax was awarded a NIH contract worth up to $7.8 million. The award is a Staged Vaccine Development contract to further develop GeoVax's preventive HIV vaccine (**GOVX-B11**) and to manufacture the DNA component of GOVX-B11 for use in advanced human clinical trials.

The base portion of the contract, with a value of $199,442, will support preparatory work for initiation of manufacturing. The contract also includes $7.6 million in additional development options that may be exercised by NIH, bringing the total potential value of the contract to $7.8 million. The scope of the product development plan covered by the contract includes process development, cGMP-compliant manufacturing of vaccine bulk drug substance and final drug product, testing and characterization of the manufactured products, stability studies, and regulatory filings.

The multi-year contract will pay 100% of the manufacturing cost of the DNA vaccine component of GeoVax's HIV vaccine candidate, GOVX-B11. The amount of DNA vaccine to be produced pursuant to the full contract will be sufficient for efficacy testing of GOVX-B11 in the presence and absence of a gp120 protein boost.

Also on June 29, GeoVax was awarded a Small Business Innovative Research (SBIR) grant by the NIH in support of its **clade C HIV** vaccine development program **for Africa**. The grant award of $294,038 is for the second year of a two-year project period which began July 1, 2015, with a two-year project budget of $593,623

The grant is supporting the **preclinical testing** in non-human primates of a vaccine designed for the clade C subtype of HIV prevalent in Sub-Saharan Africa. This project is using GeoVax's Modified Vaccinia Ankara (MVA) Virus-Like Particle (VLP) vaccine technology, and builds on the GeoVax clade B HIV vaccine, GOVX-B11, which is designed for the epidemic in the Americas and Western Europe.

We welcome these grants awarded by the government agency which not only boosts the company's balance sheet in a non-dilutive way, but further validates GeoVax's vaccine technology and its clinical and preclinical programs.

Update on HIV Program

On June 30, GeoVax filed an Investigational New Drug **(IND)** application with the FDA for the conduct of the next **human clinical trial** of GeoVax's **preventive HIV vaccine**. The IND was filed by the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health. **The Phase I** trial (designated HVTN 114) will be conducted by the NIAID-supported HIV Vaccine Trials Network (HVTN). The Company expects **HVTN 114** to begin enrolling patients in **September 2016**.

HVTN 114 will enroll up to **100 individuals** who participated in the HVTN 205 **Phase IIa** trial of the GOVX-B11 vaccine (concluded in 2012) and will test the ability of late boosts to increase the antibody responses elicited by the GeoVax vaccine. The late boosts will consist of the GeoVax MVA62B vaccine with or without a gp120 protein vaccine. **The gp120 protein, AIDSVAX® B/E**, will be supplied by Global Solutions for Infectious Diseases (GSID). Eligible participants in HVTN 114 will receive either (a) another MVA62B boost, (b) a combined boost of MVA62B and AIDSVAX®B/E, or (c) AIDSVAX® B/E alone.

The protein boost, AIDSVAX® B/E, is the same protein used to boost immune responses in the partially successful **RV144** trial in Thailand.

GOVX-B11 is a DNA/MVA vaccine that expresses non-infectious virus-like particles (VLPs). Clinical trials for GOVX-B11 have been conducted by the NIH-supported HIV Vaccine Trials Network (HVTN) with funding from the National Institute of Allergy and Infectious Disease (NIAID). The HVTN has tested various doses and combinations of the DNA and MVA vaccines in 500 humans with very encouraging results.

Entering into HBV Market

On Jun 6, 2016, GeoVax (OTCQB: GOVX) announced the launch of a program to develop a **therapeutic vaccine** for treatment of chronic Hepatitis B infections **(HBV).**

This announcement marks the official entry into the HBV market by the company.

The GeoVax HBV vaccine will be based on the Company's novel Modified Vaccinia Ankara (MVA) Virus-Like Particle (VLP) platform **(MVA-VLP),** which generates noninfectious VLPs in the individual being vaccinated. VLPs mimic a natural infection, triggering the body to produce a robust and durable immune response with both antibodies and T cells. The GeoVax MVA-VLP platform has already demonstrated outstanding safety in four clinical trials for the Company's HIV vaccine candidates, which included 500 participants.

Hepatitis B is a contagious liver disease caused by the Hepatitis B virus (HBV). For some people, Hepatitis B is an acute -- or short-term -- illness; but for others, it can become a long-term, chronic infection that may lead to cirrhosis or liver cancer.

There is a clear medical need to treat Hepatitis B infections, which affect millions of people around the world. The CDC estimates that between 700,000 to 1.4 million people in the United States have chronic Hepatitis B virus infections, with an estimated 20,000 new infections every year. Many people are unaware that they are infected or may not show any symptoms. Globally, chronic Hepatitis B affects more than 350 million people and contributes to nearly 800,000 deaths worldwide each year.

There are multiple preventive vaccines on the market to protect against Hepatitis B infection, but they cannot help patients already diagnosed with the disease. Although chronic Hepatitis B infections can be treated with drugs, **less than 5%** of chronic Hepatitis B infections are cured. These drugs only suppress the replication of the virus. Therefore, most people who start treatments must continue with them for life. Moreover, diagnosis and treatment options are very limited in resource/low income-constrained populations, which leads to a majority of patients succumbing within months of diagnosis.

Over the years, GeoVax has gained significant experience in developing therapeutic vaccines for infectious diseases including HIV and other viruses. The company's MVA-VLP technology is well-suited for the development of a therapeutic vaccine against the Hepatitis B virus.

We believe GeoVax's approach to vaccine design and method of treatment has significant merit. The company's strategy is to use its therapeutic vaccine in combination with the standard-of-care treatment to reduce the duration of drug therapy, side effects, and potential drug resistance. The goal is to significantly increase the current cure rate of Hepatitis B infections while reducing the overall treatment costs at the same time.

The entry into the HBV space further demonstrates the broad utility of GeoVax's MVA-VLP platform and solidifies GeoVax as a leader in the next generation of vaccine developers.

GeoVax Ebola Vaccine Protects Non-Human Primates against Lethal Challenge

On June 1, 2016, GeoVax announced that testing of its Ebola vaccine in non-human primates showed 100% protection against a lethal Ebola virus challenge.

In this study, the Ebola vaccine was administered as either a single inoculation (prime) or as two inoculations at a four-week interval (prime-boost) to groups of four rhesus macaques each. A control group received the MVA vector without Ebola virus protein inserts. Four weeks after inoculation, animals in all three groups were exposed to a lethal dose of Ebola virus. Three of the four unvaccinated animals died within 12 days, while all of the vaccinated animals survived.

In early September 2015, GeoVax announced positive **animal data** from its Ebola vaccine candidate, **GOVX-E301**, in rodent models. GOVX-E301 provided 100 percent protection in guinea pigs and Syrian golden hamsters, two rodent models for Ebolavirus infections. The GOVX-E301 vaccine uses a recombinant modified vaccinia Ankara (MVA) vector to express non-infectious virus-like particles (VLPs) using genetic sequences from the 2014 Ebolavirus outbreak in West Africa.

The non-human primate data are encouraging because it shows that a single dose of MVA-VLP Ebola vaccine is sufficient for protection against a lethal challenge. This is not only important for the control of natural Ebola outbreaks, but also for rapid control of Ebola intentionally released as a bioterrorism agent.

GeoVax' MVA-VLP vaccine against the Ebola virus is one component of a tetravalent hemorrhagic fever virus vaccine being developed by GeoVax. The other components are Sudan virus (Sudan ebolavirus), Marburg virus, and Lassa virus MVA-VLP vaccines. These vaccines are envisioned as either individual vaccines in epidemic situations or combined as a tetravalent vaccine for the protection of the millions of individuals who live in at-risk areas, travelers, military personnel, healthcare workers, and others.

The company is ready for **human clinical trials** during **1H17**.

Update on Zika Vaccine Program (GOVX-ZM01)

In early February, 2016, GeoVax started a program to develop a vaccine for the prevention of **Zika virus** infections using its novel MVA-VLP vaccine platform. The company believes that it can rapidly advance a vaccine candidate to human clinical testing.

GeoVax is forming **a number of collaborations** to speed the development process of a safe and effective Zika vaccine.

GeoVax has been engaged with scientists at three renowned institutions:

- the CDC for animal testing and access to Zika convalescent sera to help in vaccine development;
- the University of Georgia (UGA) for alternative animal testing models and vaccine development;

- the University of Texas Medical Branch (UTMB) for additional reagents necessary for testing GeoVax's vaccine candidates.

The GeoVax Zika vaccine (designated **GOVX-ZM01**) utilizes the company's proven Modified Vaccinia Virus Ankara –Virus-Like Particle (MVA-VLP) platform that supports in vivo production of non-infectious VLP from the cells of the very person receiving the vaccine.

On June 21, GeoVax discussed its Zika vaccine development plan at the American Society for Virology's 35th Annual Meeting, held at Virginia Polytechnic Institute and State University in Blacksburg, Virginia on June 18-22, 2016.

To rapidly develop a Zika vaccine, GeoVax is leveraging its Modified Vaccinia Virus Ankara (MVA) Virus-Like Particle (VLP) technology for the construction of a Zika vaccine. The MVA-VLP vaccines elicit both antibodies and T cells and hold promise as both single dose, and as prime-boost vaccines.

GeoVax is developing **two MVA-VLP vaccine candidates** for Zika virus using sequences from the Asian strain that recently spread to the Americas. This strain is associated with microcephaly in newborns and Guillian-Barre syndrome in adults.

The Company's **first vaccine** is designed to express Zika pre-Membrane and Envelope (prME) proteins to produce Zika VLPs intended to elicit neutralizing antibodies that can block the Zika virus at its entry point into the host. In natural infections, flaviviruses produce non-infectious prME VLPs as well as infectious virus. The **second vaccine** expresses Zika VLPs plus an additional Zika non-structural protein that is shown with other flaviviruses to induce protective antibodies as well as cellular responses against flavivirus infections in humans.

The Zika Epidemic

Recent outbreak of Zika virus in America makes the WHO to designate the Zika virus and its suspected complications in newborns an international public health emergency. The Zika epidemic, currently in 24 countries in the Americas, is transmitted by mosquitos and is expected by the WHO to reach most of the Western Hemisphere, infecting up to 4 million people by year's end. The Centers for Disease Control and Prevention (CDC) has issued a travel advisory for people traveling to regions within the Zika virus outbreak, which include popular vacation destinations including Brazil, the site of the 2016 Summer Olympic Games. More than 30 cases have been reported in the United States, imported by travelers visiting affected regions.

Zika virus is a member of the Flaviviridae family, which includes dengue fever, yellow fever, Japanese encephalitis, tick-borne encephalitis, and West Nile viruses. There is an alarming association between Zika infections and **severe birth defects**, including over 4000 cases of microcephaly in Brazil since fall 2015, 270 of which showed confirmed evidence of infection. Microcephaly is a congenital condition marked by an abnormally small head and incomplete brain development. A potential link to Zika infection is also suspected in adults diagnosed with Guillain-Barré syndrome, a rare autoimmune disorder that can cause paralysis.

Other than mosquito control, no approved preventive or therapeutic products are currently available to fight Zika infections. Public health officials recommend avoiding exposure to Zika, delaying pregnancy, and following basic supportive care after infection. A vaccine is urgently needed to prevent a Zika pandemic.

GeoVax's Vaccine Technology has the Potential to Target Zika Vaccine

GeoVax's MVA-VLP vaccine platform is uniquely suited to apply to the Zika virus. This platform has been proven to produce in vivo non-infectious virus-like particles (VLPs) for both HIV and Ebola vaccines. We believe the MVA-VLP platform can demonstrate the same with Zika. Producing VLPs in the very person

being vaccinated mimics a natural infection, stimulating the humoral and cellular arms of the immune system to recognize, prevent, and control the target infection. As an additional advantage, the company's vaccine platform has already been proven safe in humans through multiple clinical trials involving over 500 individuals in the company's HIV program.

The Zika vaccine team in GeoVax will be led by its Senior Vice President of Research and Development, Farshad Guirakhoo, PhD. Dr. Guirakhoo played pivotal roles in the development and licensure of human vaccines against Flaviviruses including dengue and Japanese encephalitis. His extensive experience and expertise with Flavivirus vaccine development gives the company an advantage over competitors and will shorten the time until a Zika vaccine can be brought to market by GeoVax and its partners.

GeoVax Expands into Oncology Immunotherapy Program

On Dec 8, 2015, GeoVax announced that it has begun a new program to evaluate its MVA-VLP vaccine platform for use in **cancer immunotherapy**, and has entered into a Collaborative Research Agreement with the University of Pittsburgh for selection and testing of vaccine candidates.

Cancer vaccine or immunotherapy has become the key player in the fight against cancer. The FDA has recently approved a few cancer vaccines/immunotherapies. These include Provenge from Dendreon for the treatment of prostate cancer, Ketruda from Merck for the treatment of lung cancer and melanoma, Opdivo from Bristol-Myers Squibb for the treatment of melanoma, lung cancer and kidney cancer, and Yervoy from Bristol-Myers Squibb for the treatment of melanoma. The cancer immunotherapy will become a multibillion-dollar market in a few years.

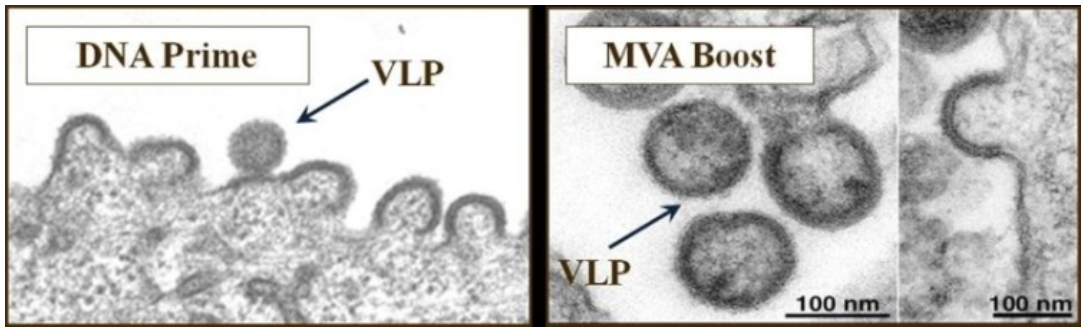
Some tumor-associated antigens are over-expressed or aberrantly expressed in many types of cancer. These antigens in the actual tumors are often recognized as abnormal by patients' immune systems but are not sufficiently immunogenic to trigger an effective immune response. The tumor antigens must be presented to the body in a different form, or in a different way, to enlist the immune system in fighting the cancer. GeoVax's MVA-VLP platform may be able to do exactly this.

The Company's vaccine technology incorporates two vaccine delivery components:

- a recombinant DNA (deoxyribonucleic acid, the primer) and
- a recombinant poxvirus, known as MVA (modified vaccinia Ankara, the booster)

When used together, the recombinant DNA component is used to **prime** the immune response, which is then **boosted** by administration of the recombinant MVA component. However, in certain settings the recombinant **MVA alone** may be sufficient for priming and boosting the immune responses.

Both the DNA and MVA vaccines produce **virus-like particles (VLP)**. Expression of multiple proteins by the vaccine is important because each protein provides targets for cytotoxic T-cells. Elicitation of a multi-target T-cell response limits immune escape, just as multi-drug therapies limit drug escape.



For the DNA Prime, VLPs are seen budding from a DNA-expressing cell. For the MVA boost, fully formed particles as well as a budding particle are shown. The VLPs display trimeric membrane-bound forms of the viral envelope

glycoprotein (Env). The VLPs are immature and are rendered non-infectious by deletion of essential genes and introduction of inactivating mutations in essential viral enzymes.

VLPs are designed to elicit:

- protective antibodies – block infection
- cytotoxic T cells – type of white blood cell that kills infected cells

Similarly, GeoVax believes that certain cancer antigens can be genetically modified and delivered using its MVA-VLP platform to train a patient's own immune system to selectively seek and destroy those cells bearing such antigens.

GeoVax's MVA-VLP vaccine platform will allow co-expression of specific cancer antigens and immunomodulatory elements (if needed) tailored to induce a patient's humoral and cellular responses to effectively target and destroy cancer cells.

We welcome the company's decision to expand its platform into the application of cancer immunotherapy. This will further demonstrate the broad utility of the company's MVA vaccine vector beyond infectious diseases for a wide range of possible vaccines.

The cancer immunotherapy program is a new area for GeoVax. The company's primary focus will continue to be infectious disease targets, as with its HIV and Ebola vaccine programs, but the application of its vaccine technology to oncology offers the prospect of addressing some very important unmet medical needs, as well as a significant opportunity to increase shareholder value.

The company has entered a research collaboration with the University of Pittsburgh, which will screen GeoVax's antigen-expressing vaccine candidates using monoclonal antibodies and select vaccines for testing in animal models. The company intends to pursue additional collaborations with leading research institutions and others with novel cancer antigens or technologies suitable for use with its MVA-VLP platform.

Update on Hemorrhagic Fever Vaccine

On Feb 29, 2016, GeoVax announced that it has entered into a Cooperative Research and Development Agreement for Material Transfer with the United States Army Medical Research Institute of Infectious Diseases (USAMRIID) to collaborate on GeoVax's effort to develop a vaccine against **hemorrhagic fever viruses.**

Pursuant to the agreement, GeoVax and USAMRIID will share materials and related information for in vitro and in vivo assessment of GeoVax's MVA-VLP **tetravalent vaccine** against **Ebola Zaire, Ebola Sudan, Marburg, and Lassa fever viruses.**

Researchers at USAMRIID have generated and characterized, in great detail, a wide panel of anti-filovirus and Lassa virus antibodies with different specificities and functionalities. One of these antibodies is now part of ZMapp, an experimental drug comprising three chimeric monoclonal antibodies first tested in humans during the 2014 Ebola epidemic.

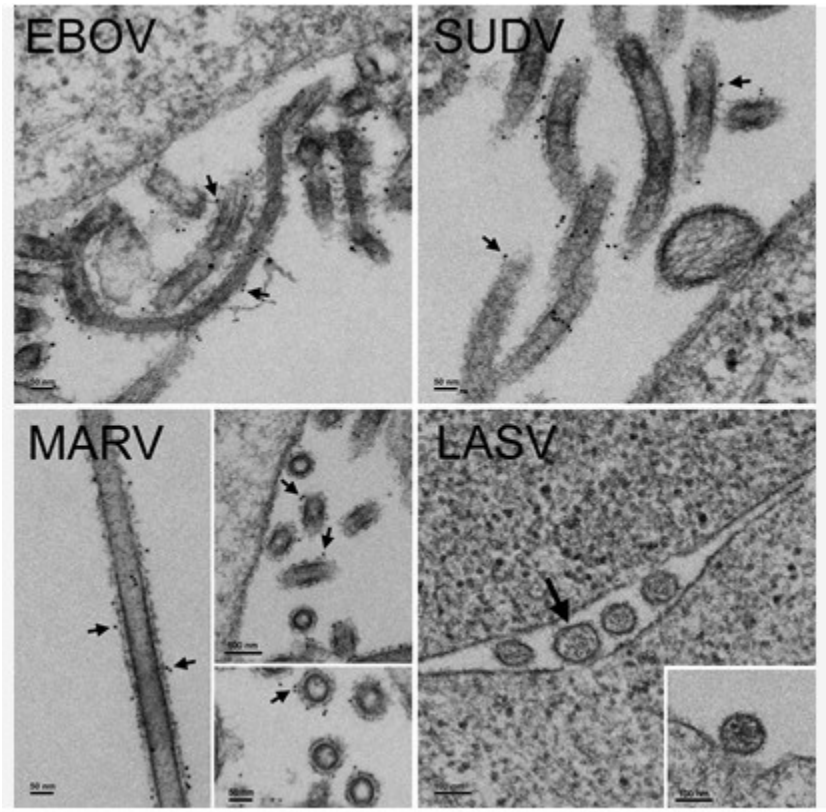
Hemorrhagic fever viruses fatal to humans are endemic to Africa where reservoirs remain in animal hosts such as bats, and as the 2014/15 Ebola epidemic showed, these viruses may quickly spread beyond the borders where the outbreak first begins.

GeoVax has demonstrated 100% protection in small animal models. The next step will be testing in non-human primates.

On July 27, GeoVax provided an update on its Tetravalent Hemorrhagic Fever Vaccine (THV) program.

The company's **GOVX- E303** is based on the Company's novel Modified Vaccinia Ankara (MVA) VLP platform, which generates noninfectious VLPs.

GeoVax has previously demonstrated VLP formation as well as 100% protection in non-human primates after single, or prime/boost, inoculations with its Ebola-Zaire vaccine. The Company now has vaccine constructs against each of the three additional hemorrhagic fever targets and has demonstrated VLP production for each target infection. GeoVax's vaccines are being developed for use as either individual vaccines in epidemic or biothreat situations or combined as a single tetravalent vaccine for protection of the millions of individuals who live in at-risk areas, travelers, military personnel, and healthcare workers.



Attractive Valuation

We maintain our fair valuation at $0.25 per share for GeoVax.

GeoVax has developed the technology for the development of both preventive and therapeutic HIV/AIDS vaccines. The Company's vaccine candidates are the only HIV vaccines for America/Europe entering efficacy trial.

There is a compelling amount of data to indicate the GOVX-B11 could be successful without the "protein boost", thus we believe the plan to move forward with GOVX-B11 in a separate Phase IIb study is a good one, provided the company can secure the necessary funding under favorable terms. Continued development of the new Ebola/Marburg vaccine program and recent expansion to Zika vaccine, HBV and oncology immunotherapy further expands the company's pipeline.

GeoVax has a strong position in intellectual property. The excellent relationship with Emory University put the Company in a better position to get the most advanced vaccine technology in the first hand, therefore providing a sustainable growth engine for the Company.

The Company has a modest cash burn rate ($2 to $3 million annually) due to generous government support. Down the road, we believe GeoVax will continue to seek non-dilutive government and non-government support for its HIV vaccine development. If the boost trial and/or Phase IIb trial proves to be positive, we believe it would be likely for the Company to find a partner from big pharma or biotech companies who seek to boost or enter into the anti-HIV/AIDS market. We believe this could be a major valuation inflection for the company in 2016 or 2017.

Based on the current fundamentals of the Company, we believe current valuation is attractive. With a decent pipeline and mid-stage candidates, GeoVax is only valued at $4 million in market cap. This is a huge discount in our view. We understand that HIV/AIDS vaccines have been tough to develop and that this is a high risk area for any biotech company especially for smaller ones with limited resources. However, we think GeoVax has done great job so far in the HIV/Ebola vaccine area and is well positioned to continue to create shareholder value down the road.

We see GeoVax as a risk reward opportunity with significant long term positive returns. Our price target of $0.25 represents a market cap of $11 million.

But risks must be taken into account when investors add positions.

One major risk is development/regulatory risk. We remind investors that GeoVax's HIV/AIDS vaccines are still in mid-stage development and the Company still needs to navigate through the regulatory process in the US and around the world, which proves to be long and tough. When it comes to HIV/AIDS vaccine, investors should be aware that this has been a tough area to tackle considering the failed developments already.

Cash burn is still a concern. Although most of GeoVax's clinical trials have been supported by the government grants, there is no guarantee that the Company will continue to get enough support to continue late stage clinical studies. In such a case, the Company needs alternative financing measures, which include equity or debt financing. We remind investors that equity financing will dilute existing shareholder base.

Program	Preclinical	Phase 1	Phase 2	Phase 3	Collaborator/ Funding	Status
HIV – Clade B / Preventive Vaccine (GOVX-B11)					NIH/HVTN	Phase 2a completed – vaccine alone Protein boost trial beginning H2 2016
HIV – Clade B / Immunotherapy (GOVX-B11)						Pilot Phase 1 completed Seeking collaborations
HIV – Clade C / Preventive Vaccine					NIH	Grant-supported preclinical
Hemorrhagic Fever Vaccine (GOVX-E303) TV - Ebola, Sudan, Marburg, Lassa)						Rodent and primate challenge completed with Ebola
Zika Vaccine (GOVX-ZM01)					Univ. of Georgia CDC	Preclinical ready to start
Immuno-oncology					University of Pittsburgh	Preclinical ready to start
Hepatitis B Tx Vaccine						Vaccine constructs under development

PROJECTED INCOME STATEMENT

	2015A (Dec)					2016E (Dec)					2017E (Dec)	2018E (Dec)	2019E (Dec)	2020E (Dec)
$ in million except per share data	Q1	Q2	Q3	Q4	FYA	Q1	Q2	Q3	Q4	FYE	FYE	FYE	FYE	FYE
Grant revenue	$0.10	$0.07	$0.09	$0.16	$0.43	$0.05	$0.17	$0.15	$0.15	$0.51	$1.00	$1.50	$2.00	$3.00
Product Revenue	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$10.00
Total Revenues	**$0.10**	**$0.07**	**$0.09**	**$0.16**	**$0.43**	**$0.05**	**$0.17**	**$0.15**	**$0.15**	**$0.51**	**$1.00**	**$1.50**	**$2.00**	**$13.00**
YOY Growth	-34.1%	-60.3%	-71.1%	-28.4%	-51.5%	-54.0%	132.6%	61.3%	-6.4%	20.0%	94.6%	50.0%	33.3%	550.0%
CoGS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50
Gross Income	**$0.10**	**$0.07**	**$0.09**	**$0.16**	**$0.43**	**$0.05**	**$0.17**	**$0.15**	**$0.15**	**$0.51**	**$1.00**	**$1.50**	**$2.00**	**$11.50**
Gross Margin	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	88.5%
R&D	$0.40	$0.38	$0.38	$0.53	$1.69	$0.44	$0.40	$0.50	$0.55	$1.89	$2.50	$3.00	$4.00	$6.00
% R&D	390.3%	538.2%	406.5%	328.9%	395.5%	920.2%	239.1%	333.3%	366.7%	366.9%	250.0%	200.0%	200.0%	46.2%
SG&A	$0.40	$0.36	$0.34	$0.33	$1.43	$0.91	$0.34	$0.45	$0.50	$2.20	$2.50	$3.50	$4.80	$6.00
%SG&A	388%	511%	361%	204%	334%	1904%	207%	300%	333%	428%	250%	233%	240%	46%
Operating Income	**($0.7)**	**($0.7)**	**($0.6)**	**($0.7)**	**($2.7)**	**($1.3)**	**($0.6)**	**($0.8)**	**($0.9)**	**($3.6)**	**($4.0)**	**($5.0)**	**($6.8)**	**($0.5)**
Operating Margin	-	-	-	-	-	-	-	-	-	-	-	-		
Other Net	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Pre-Tax Income	**($0.7)**	**($0.7)**	**($0.6)**	**($0.7)**	**($2.7)**	**($1.3)**	**($0.6)**	**($0.8)**	**($0.9)**	**($3.6)**	**($4.0)**	**($5.0)**	**($6.8)**	**($0.5)**
Income taxes(benefit)	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.5	$0.5	$0.5
Tax Rate	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reported Net Income	**($0.7)**	**($0.7)**	**($0.6)**	**($0.7)**	**($2.7)**	**($1.3)**	**($0.6)**	**($0.8)**	**($0.9)**	**($3.6)**	**($4.0)**	**($5.5)**	**($7.3)**	**($1.0)**
YOY Growth	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Margin	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diluted Shares Out	32.0	32.0	32.0	31.9	32.0	34.6	37.4	42.0	46.0	40.0	65.0	75.0	85.0	95.0
Reported EPS	**($0.02)**	**($0.02)**	**($0.02)**	**($0.02)**	**($0.08)**	**($0.04)**	**($0.02)**	**($0.02)**	**($0.02)**	**($0.09)**	**($0.06)**	**($0.07)**	**($0.09)**	**($0.01)**
One time charge	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*	*$0.00*
Non GAAP Net Income	**($0.7)**	**($0.7)**	**($0.6)**	**($0.7)**	**($2.7)**	**($1.3)**	**($0.6)**	**($0.8)**	**($0.9)**	**($3.6)**	**($4.0)**	**($5.5)**	**($7.3)**	**($1.0)**
Non GAAP EPS	**($0.02)**	**($0.02)**	**($0.02)**	**($0.02)**	**($0.08)**	**($0.04)**	**($0.02)**	**($0.02)**	**($0.02)**	**($0.09)**	**($0.06)**	**($0.07)**	**($0.09)**	**($0.01)**

Source:company filings and Zacks estimate

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HISTORICAL STOCK PRICE



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