Zacks Small-Cap Research
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Soligenix, Inc.

(SNGX-NASDAQ)

SNGX: Q&A on COVID-19 Vaccine Candidate CiVax™…

Based on our probability adjusted DCF model that takes into account potential future revenues from SGX301 and SGX942, SNGX is valued at $12.00 per share. This model is highly dependent upon continued clinical success of SGX942 and commercial success of SGX301 and will be adjusted accordingly based upon future results.

Current Price (06/22/20)	$1.77
Valuation	**$12.00**

OUTLOOK

On June 16, 2020, Soligenix, Inc. (SNGX) Senior Vice President and Chief Scientific Officer, Dr. Oreola Donini, presented at the MedInvest Infectious Disease and Immunology Investor Conference. During the presentation, Dr. Donini discussed the company's vaccine platform, including CiVax™, the COVID-19 vaccine candidate. As a follow up, we asked Dr. Donini a few questions about the CiVax™ program, with her answers provided in this report.

SUMMARY DATA

52-Week High	**$3.34**
52-Week Low	**$0.70**
One-Year Return (%)	**149.30**
Beta	**1.17**
Average Daily Volume (sh)	**652,960**
Shares Outstanding (mil)	**27**
Market Capitalization ($mil)	**$47**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**11**
Insider Ownership (%)	**16**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**-16.6**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/A**
P/E using 2018 Estimate	**-2.7**
P/E using 2019 Estimate	**-7.8**

Risk Level	**Above Avg.**
Type of Stock	**Small-Growth**
Industry	**Med-Biomed/Gene**

ZACKS ESTIMATES

Revenue
(in millions of $)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2019	1.1 A	1.5 A	1.3 A	0.7 A	4.6 A
2020	0.9 A	1.1 E	1.1 E	1.1 E	4.4 E
2021					4.5 E
2022					25.5 E

Earnings per Share

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2019	-$0.09 A	-$0.12 E	-$0.14 A	-$0.16 A	-$0.48 A
2020	-$0.32 A	-$0.11 E	-$0.12 E	-$0.12 E	-$0.65 E
2021					-$0.63 E
2022					-$0.37 E

WHAT'S NEW

Business Update

Update on Vaccine Programs

On June 16, 2020, Soligenix Inc. (SNGX) Senior Vice President and Chief Scientific Officer, Dr. Oreola Donini, presented at the MedInvest Infecious Disease and Immunology Investor Conference. The presentation can be viewed here. As a follow up, we asked Dr. Donini a few questions regarding the company's coronavirus vaccine program (CiVax™), with her answers provided below.

DB: There are a number of companies developing COVID-19 vaccines. Can you describe why you think CiVax™ could be competitive?

OD: As we all know, the need to rapidly develop a vaccine for use world-wide is very challenging. Certainly, no single vaccine technology will be appropriate for all subpopulations (e.g., immunocompromised) nor will it be able to rapidly provide enough doses to cover all populations worldwide. Ultimately, the solution to COVID-19 will not be one vaccine but many.

The Soligenix vaccine platform is based on a protein vaccine platform which provides a gold standard in terms of vaccine safety, especially for immunocompromised or elderly populations. The use of the CoVaccine HT™ adjuvant, licensed from BTG Specialty Pharmaceuticals, a division of Boston Scientific Corporation (BSX), allows us to leverage the safety of our platform with strong immunogenic responses, as well as the need for rapid scale up. Finally – it is important to note that while many vaccines require cold storage and shipment, complicating logistics especially in the context of rapid roll-outs, the Soligenix vaccine platform, including CoVaccine HT™, is compatible with thermostabilization, allowing ambient shipping and storage to temperatures as high as 40°C (104 °F). Using this platform, we believe that CiVax™, our COVID-19 vaccine, has the potential to be a strong vaccine candidate.

We have recently conducted preliminary preclinical experiments in a mouse model with a test antigen and the CoVaccine HT™ adjuvant and seen not only the required Th1 response, but also a strong immune response after a single vaccination dose. With more work to be done, we are nonetheless encouraged by results to date.

DB: How does your vaccine approach compare to other companies?

OD: Approaches under development include inactivated live virus vectors, which are often contra-indicated in certain population (elderly, immunocompromised, etc.), RNA and DNA vaccines, which as far as we are aware no RNA or DNA vaccine has been approved to date by the FDA, and protein vaccines, which are a well understood technology and are considered safe, with the caveat that efficacy is very dependent on adjuvant potency.

We are focusing on a protein platform utilizing the recently licensed CoVaccine HT™ adjuvant. The CoVaccine adjuvant is unique in its ability to stimulate both humoral (antibody) and cell mediated (T cell) immunity, and has been shown to be able to target a Th1 response, considered important for coronaviruses. Moreover, we have demonstrated with our joint filovirus program with University of Hawaii that this adjuvant is able to produce a 100% effective Ebola virus vaccine in the gold standard rhesus macaques model where other adjuvants (including alum) fail completely. We consider adjuvant selection crucial to the success of the product and are very encouraged by our past experience with this particular adjuvant.

Our experience has also been that we can lyophilize protein using Generally Regarded as Safe (GRAS) excipients, potentially yielding a thermostable vaccine as a powder in individual dosing vials which is reconstituted with water for injection immediately prior to use – a very convenient format.

Finally, it is worth noting that in our collaboration with the University of Hawaii we have also been using a protein expression system (to produce antigen) which has been shown to produce stable patterns of glycosylation of multimeric proteins and can be clinically scaled – this should also be directly relevant to CiVax™, the COVID-19 vaccine we are developing, as we are targeting the trimeric spike glycoprotein as the antigen of choice.

DB: Some companies have estimated their COVID vaccines could be available by the end of 2020 or early 2021. What is the timeline for the development of CiVax™ and how quickly could it make it to market?

OD: Assuming nearer term government funding, we could potentially have clinical data by the second half of 2021 as well as some product availability which would continue to increase thereafter. Crucially, the most advanced approaches currently in development are also the riskiest, reflecting a complete lack of regulatory precedent and very little safety data. Currently, we see our approach as the backstop in the event these riskier endeavors fail, or are completely consumed in the initial expansion phase; however, a bit longer term we anticipate CiVax™ potentially being a more cost effective vaccine that can be easily distributed worldwide as it does not require refrigeration.

DB: Do you see other applications for your vaccine platform?

OD: The Soligenix vaccine platform is really rooted in our ability to consistently thermostabilize vaccines, leading to faster, cheaper and broader distribution networks, obviating the key cause of a lot of product waste and product failure due to known or unknown temperature excursions.

Soligenix has shown the ability to thermostabilize vaccines, particularly protein vaccines, with different adjuvants such as alum and CoVaccine HT™. Both alum and CoVaccine have been generally considered very difficult to thermostabilize and these breakthroughs characterize the unifying feature of the vaccine platform.

Combining these adjuvants with protein antigens yields many potential vaccine applications – with proof of concept data in Ricin toxin (RiVax®), HPV, Zika, Ebola, Marburg, and flu, to name a few. Thus, while our immediate focus is on CiVax™ for COVID-19, and our very advanced ricin toxin vaccine program, we remain committed to the filovirus (Ebola, Marburg) effort in collaboration with the University of Hawaii and certainly anticipate potentially expanding the vaccine portfolio in future.

Conclusion

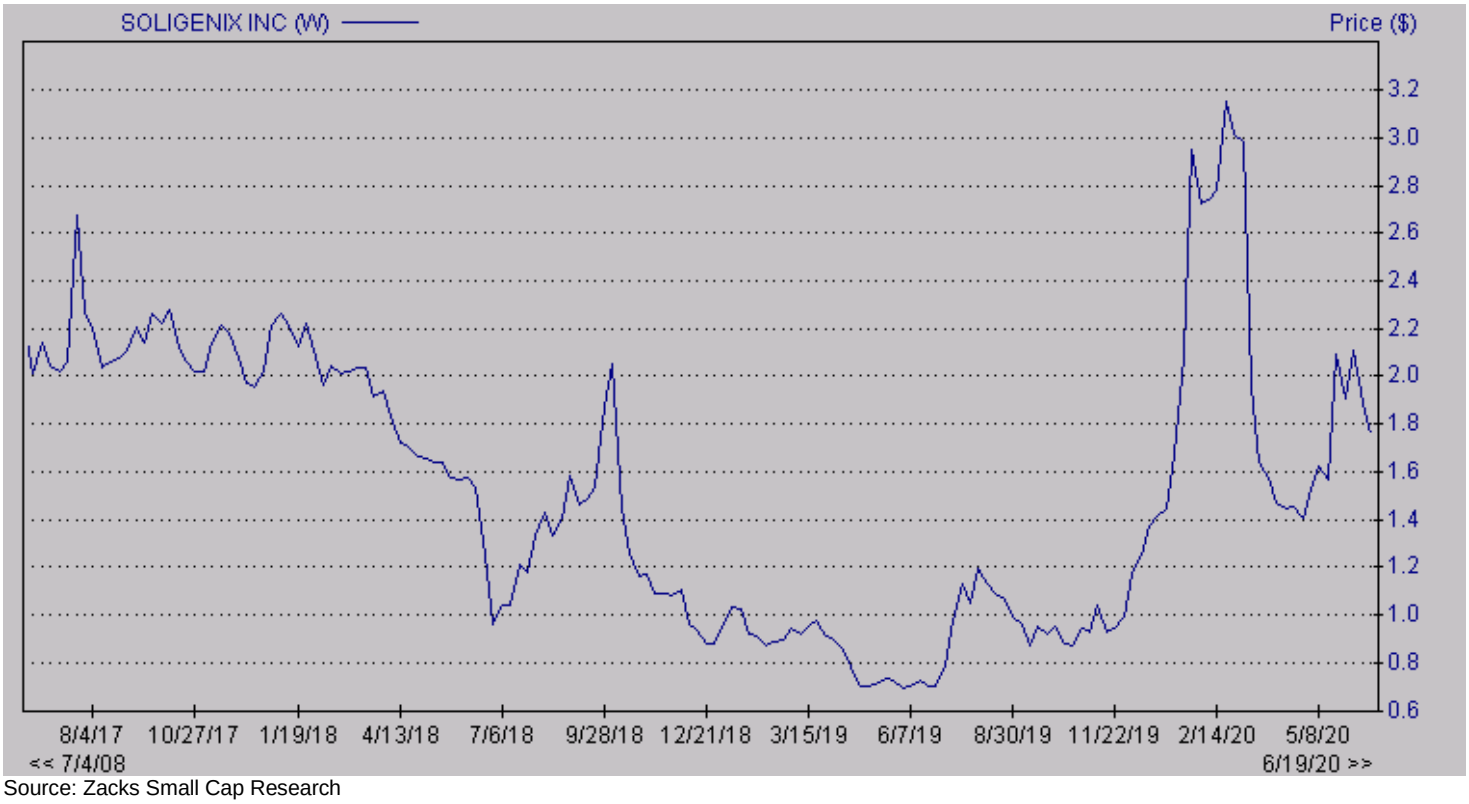
We thank Dr. Donini for providing an overview of the CiVax™ program and we look forward to updates as it advances in development. We encourage investors to watch Dr. Donini's presentation at the MedInvest Infecious Disease and Immunology Investor Conference, which goes into much more detail regarding the company's vaccine programs. As a reminder, following the positive topline data presented by the company for SGX-301 in CTCL, we continue to anticipate Phase 3 data for SGX-942 in oral mucositis in the fourth quarter of 2020. The company will also be joining the Russell Microcap Index effective June 29th, 2020, which should help to increase visibility within the investment community. Our current valuation is $12 per share.

PROJECTED FINANCIALS

Soligenix, Inc.	2019 A	Q1 A	Q2 E	Q3 E	Q4 E	2020 E	2021 E	2022 E
License Revenue	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Grant/Contract Revenue	$4.6	$0.9	$1.1	$1.1	$1.1	$4.2	$4.5	$4.5
SGX301	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$21.0
SGX942	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Total Revenues	**$4.6**	**$0.9**	**$1.1**	**$1.1**	**$1.1**	**$4.2**	**$4.5**	**$25.5**
Cost of Revenue	$3.6	$0.8	$0.9	$0.9	$0.9	$3.5	$3.7	$8.0
Gross Income	**$1.1**	**$0.1**	**$0.2**	**$0.2**	**$0.2**	**$0.7**	**$0.8**	**$17.5**
Gross Margin	*22.9%*	*10.3%*	*18.2%*	*18.2%*	*18.2%*	*16.5%*	*17.8%*	*68.6%*
Research & Development	$8.1	$2.7	$2.2	$2.4	$2.5	$9.8	$10.0	$12.0
General & Administrative	$3.5	$0.9	$0.9	$0.9	$1.0	$3.7	$10.0	$18.0
Other Expenses	$0.0	$5.0	$0.0	$0.0	$0.0	$5.0	$0.0	$0.0
Operating Income	($10.5)	($8.5)	($2.9)	($3.1)	($3.3)	($17.8)	($19.2)	($12.5)
Operating Margin	-	-	-	-	-	-	-	-
Other Income (Net)	$0.6	$0.1	$0.1	$0.1	$0.1	$0.2	$0.2	$0.2
Pre-Tax Income	**($10.0)**	**($8.4)**	**($2.9)**	**($3.1)**	**($3.3)**	**($17.6)**	**($19.0)**	**($12.3)**
Net Taxes (benefit)	$0.6	($0.8)	$0.0	$0.0	$0.0	$0.8	$0.0	$0.0
Tax Rate	*6.1%*	*9.9%*	*0.0%*	*0.0%*	*0.0%*	*4.8%*	*0.0%*	*0.0%*
Reported Net Income	**($9.4)**	**($7.6)**	**($2.9)**	**($3.1)**	**($3.3)**	**($16.7)**	**($19.0)**	**($12.3)**
Net Margin	-	-	-	-	-	-	-	-
Reported EPS	**($0.48)**	**($0.32)**	**($0.11)**	**($0.11)**	**($0.12)**	**($0.64)**	**($0.63)**	**($0.37)**
YOY Growth	-	-	-	-	-	-	-	-
Basic Shares Outstanding	19.4	23.4	26.6	26.8	27.0	26.0	30.0	33.0

Source: Zacks Investment Research, Inc. *David Bautz, PhD*

HISTORICAL STOCK PRICE



Source: Zacks Small Cap Research

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