

Healthcare: Biotechnology

Inovio Pharmaceuticals | INO - \$4.36 - AMEX | Buy

Conference Call/Schedule

Stock Data

52-Week Low - High	\$1.92 - \$5.95
Shares Out. (mil)	100.01
Mkt. Cap.(mil)	\$436.05
3-Mo. Avg. Vol.	2,368,663
12-Mo.Price Target	\$13.00
Cash (mil)	\$93.8
Tot. Debt (mil)	\$70.1

EPS \$

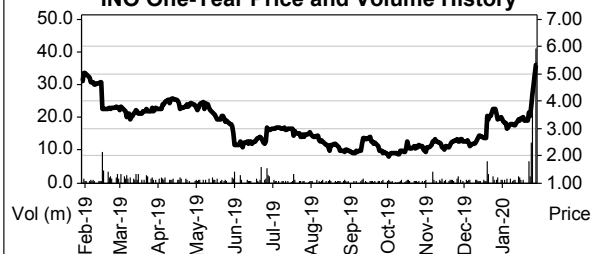
Yr Dec	—2018—	—2019E—	—2020E—
		Curr	Curr
1Q	(0.36)A	(0.30)A	(0.23)E
2Q	(0.07)A	(0.30)A	(0.23)E
3Q	(0.27)A	(0.24)A	(0.21)E
4Q	(0.34)A	(0.23)E	(0.20)E
YEAR	(1.05)A	(1.07)E	(0.86)E

Quarters may not add due to rounding

Revenue (\$ millions)

Yr Dec	—2018—	—2019E—	—2020E—
		Curr	Curr
1Q	1.5A	2.8A	0.7E
2Q	24.4A	0.1A	0.7E
3Q	2.0A	0.9A	0.7E
4Q	2.5A	0.7E	0.7E
YEAR	30.5A	4.5E	2.6E

INO One-Year Price and Volume History



INO: Expert Call - Potential Threats from the New Chinese Coronavirus

Given the recent outbreak of a new strain of coronavirus in China, and its spread to North America, we are hosting an expert call featuring Dr. David B. Weiner, Ph.D. to discuss the implications of the epidemic both near its source and closer to home. Topics will include route of transmission, quarantine adequacy, the potential utility of existing therapies, technologies that could most rapidly generate vaccines and therapies, and the potential true size of the epidemic at present.

Speaker: Dr. David B. Weiner, Ph.D., Executive Vice President of the Wistar Institute, Director of Vaccine & Immunotherapy Center, and Professor Emeritus at the University of Pennsylvania School of Medicine.

Date: Monday, February 3, 2020, at 10:30AM (EST)

Focus Company: Inovio Pharmaceuticals, Inc. (INO)

Speaker Background: Dr. Weiner directs a translational molecular immunology research team focused on creating novel immunotherapy approaches for disease prevention and treatment using synthetic nucleic acid technology. Accomplishments of the team and collaborators include the first clinical studies of DNA vaccines, with a focus on advances in gene optimization and electroporation (EP)-mediated DNA delivery. Their work has revitalized the field, rapidly and safely moving new advances into human studies. These include the world's first Zika vaccine, the first MERS vaccine, an advanced Ebola Vaccine, and a novel HIV vaccine, among others. Additionally, the Weiner laboratory has helped to develop immunotherapy approaches that are currently in clinical testing for HPV-associated cancer, prostate and other cancers. The first clinically efficacious therapeutic DNA vaccine for HPV cervical intraepithelial neoplasia CIN) has moved into a licensure trial (REVEAL). Weiner and his lab have received several awards/honors for their accomplishments, including the Vaccine Industry Associations Outstanding Academic Research Laboratory (2015 & 2016), being named one of the Top 20 Translational Research Laboratories of the Year (Nature Biotechnology 2016, 2017 & 2018) and the 2014 Stone family Award for Cancer Research. Weiner was named one of the nation's top 40 most influential vaccine scientists in 2014, received the 2011 NIH Directors Translational Research Award and is an elected fellow of the American Association for the Advancement of Science since 2011 and a fellow of the International Society for Vaccines, for which he served as president from 2018 to 2020. He has been part of 244 scientific publications thus far.

VALUATION

Our 12-month price target of \$13, is based on a DCF analysis using a 15% discount rate that is applied to all cash flows and the terminal value, which is based on a 4x multiple of our projected 2030 operating income of \$834 million. We arrive at this valuation by only projecting future revenue from VGX-3100 in CIN2/3, INO-3107 in RRP, and INO-5401 in GBM, a valuation we view to be conservative given that it excludes many HPV-associated cancers that should be just as successfully treatable as CIN2/3 and RRP. Commercial success outside of these three programs would serve as upside to our valuation. We believe that INO, especially with its HPV-associated cancer pipeline, has prudently selected areas of oncology that combine unmet need, and therefore ultimately market demand, with a high likelihood of clinical success.

The U.S. oncology indications that we forecast in our financial model, CIN2/3 (annual U.S. incidence of 195,000), RRP (annual U.S. incidence of 6,000), and GBM (annual U.S. incidence of 10,000), are modeled assuming that INO commercializes the products itself. Our model forecasts about \$1.1 billion in total sales in 2030 from these three indications.

Factors that could impede shares of INO from achieving our price target include VGX-3100 failing to generate statistically significant Phase 3 results in 4Q20, as this will be a significant binary event for INO. Also, the FDA could fail to approve VGX-3100, even if both Phase 3 REVEAL trials are statistical successes, due to the agency viewing the results as not clinically meaningful. Also, clinical failures with VGX-3100 in other HPV-associated cancers, as well as clinical failure with INO-3107 in RRP, INO-5401 in GBM, MEDI0457 in HPV-related cancers, and INO-5151 in prostate cancer, could impede achieving our price target. Loss of key management personnel could also impede achieving our price target.

RISKS

- Clinical risk. Inovio's clinical staged products could fail to deliver statistically significant results in late-stage clinical trials, substantially reducing the value of Inovio's product candidates and therefore our target price.
- Regulatory risk. Even if successful in the clinic, Inovio's products could fail to be approved by domestic and/or foreign regulatory bodies, which would reduce Inovio's value and therefore our target price.
- Financing risk. Inovio will need additional capital to fund its operations, and such financing may not occur or it could be substantially dilutive to existing investors.
- Competitive risk. For any future approved Inovio products, they may not be well adopted in a competitive marketplace, which would adversely affect Inovio's value and therefore our target price.
- High stock price volatility. This issue is common among small-cap biotechnology companies with relatively low trading volumes.

COMPANY DESCRIPTION

Inovio is an innovative biotechnology company focused on the discovery, development, and commercialization of its synthetic DNA technology targeted against cancers and infectious diseases. Inovio's proprietary technology platform applies antigen sequencing and delivery to enable in vivo protein expression, which can activate potent immune responses to targeted diseases. The technology has been demonstrated to consistently activate robust and fully functional T cell and antibody responses against targeted cancers and pathogens. Inovio's most advanced clinical program, VGX-3100, is in Phase 3 development for the treatment of HPV-related cervical pre-cancer. Also in development are Phase 2 immuno-oncology programs targeting HPV-related cancers and GBM, as well as externally funded platform development programs in Zika, MERS, Lassa, and HIV. Partners and collaborators include ApolloBio Corporation, AstraZeneca, The Bill & Melinda Gates Foundation, Coalition for Epidemic Preparedness Innovations (CEPI), Defense Advanced Research Projects Agency, GeneOne Life Science, HIV Vaccines Trial Network, Medical CBRN Defense Consortium (MCDC), National Cancer Institute, National Institutes of Health, National Institute of Allergy and Infectious Diseases, Regeneron, Roche/Genentech, University of Pennsylvania, Walter Reed Army Institute of Research, and The Wistar Institute.

Regulation Analyst Certification ("Reg AC"): The research analyst primarily responsible for the content of this report certifies the following under Reg AC: I hereby certify that all views expressed in this report accurately reflect my personal views about the subject company or companies and its or their securities. I also certify that no part of my compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

Disclosures:

ROTH makes a market in shares of Inovio Pharmaceuticals and as such, buys and sells from customers on a principal basis.

Shares of Inovio Pharmaceuticals may be subject to the Securities and Exchange Commission's Penny Stock Rules, which may set forth sales practice requirements for certain low-priced securities.



Each box on the Rating and Price Target History chart above represents a date on which an analyst made a change to a rating or price target, except for the first box, which may only represent the first note written during the past three years. **Distribution Ratings/IB Services** shows the number of companies in each rating category from which Roth or an affiliate received compensation for investment banking services in the past 12 month.

Distribution of IB Services Firmwide

Rating	Count	Percent	IB Serv./Past 12 Mos. as of 01/28/20	
			Count	Percent
Buy [B]	283	81.32	160	56.54
Neutral [N]	45	12.93	18	40.00
Sell [S]	5	1.44	2	40.00
Under Review [UR]	15	4.31	11	73.33

Our rating system attempts to incorporate industry, company and/or overall market risk and volatility. Consequently, at any given point in time, our investment rating on a stock and its implied price movement may not correspond to the stated 12-month price target.

Ratings System Definitions - ROTH employs a rating system based on the following:

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Neutral: A rating, which at the time it is instituted and or reiterated, that indicates an expectation of a total return between negative 10% and 10% over the next 12 months.

Sell: A rating, which at the time it is instituted and or reiterated, that indicates an expectation that the price will depreciate by more than 10% over the next 12 months.

Under Review [UR]: A rating, which at the time it is instituted and or reiterated, indicates the temporary removal of the prior rating, price target and estimates for the security. Prior rating, price target and estimates should no longer be relied upon for UR-rated securities.

Not Covered [NC]: ROTH does not publish research or have an opinion about this security.

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