



Inovio Biomedical is designing, developing and delivering a new generation of vaccines – DNA vaccines – to prevent and treat cancers and infectious diseases

Taking Vaccines into the Future

Investment Highlights

Vaccine market is growing strongly. Vaccines have protected hundreds of millions of people from diseases such as smallpox, polio, and measles. The compelling idea of stimulating the body's immune system is resulting in new vaccine innovations, such as Gardasil®. Industry research firm Kalorama expects the \$19.2B (2008) vaccine market to double by 2013.

Creating a new generation of vaccines to treat diseases. Technologically advanced DNA vaccines may not only prevent but treat cancers and challenging infectious diseases by inducing important T-cell immune responses.

Designing DNA vaccines to combat new, unknown virus strains. Inovio universal vaccines are intended to provide cross-strain protection for rapidly evolving viruses such as HIV and influenza, an impossible challenge for conventional vaccines. Inovio DNA vaccines designed in 2007 achieved complete protection in animals against the 1918 pandemic H1N1 and current "swine flu" strains.

Proprietary electroporation delivery technology showing potential to overcome industry bottleneck. Previous DNA vaccines have met numerous delivery challenges. Interim human data shows Inovio's electroporation technology is safe, well tolerated, and significantly enhances immune responses to DNA vaccines.

Multi-indication pipeline targeting cancers and infectious diseases, with both internal and partner programs in clinical studies. See pipeline chart next page.

Validation and non-dilutive grants from funding organizations. NIH's NIAID: \$23.5M: HIV; Department of Defense: biodefense; MVI Path, supported by Bill & Melinda Gates Foundation: malaria.

Vaccine expertise and leadership. Management has Big Pharma and biotech experience, and taken several vaccines through marketing approval. Eminent scientific advisors in vaccine and DNA vaccine fields. Board includes past senior executives from Sanofi vaccines group and Merck. Strong ties with University of Pennsylvania.

Significant patent portfolio encompassing synthetic consensus DNA vaccines and electroporation delivery of biopharmaceuticals.

About the Company

Listing: NYSE Amex: INO

Recent market price: \$1.41 (10/03/08)

52 week range: \$0.27-\$3.40

Shares o/s: 102.1M (09/11/12)

Market capitalization: \$144M (10/03/08)

Avg. daily volume (3 mo.): 481K

Cash: \$32.5M (09/09/30)

News Update

Affiliate VGX International Inc. receives Korean approval to begin Phase I trial of Inovio's DNA vaccine for H5N1 avian influenza

Therapeutic cervical cancer vaccine achieves significantly increased, dose-related antigen-specific antibody and T-cell responses in second, intermediate dose group of Phase I study

New handheld, cordless electroporation device to facilitate mass vaccination with DNA vaccines

Mark Bagarazzi, M.D., most recently director of worldwide regulatory affairs for vaccines and biologics at Merck, appointed as Inovio's Chief Medical Officer

Universal flu vaccines demonstrate broadly protective immune responses against multiple influenza viruses, including key seasonal and pandemic strains of the last century and the deadly H5N1

Other assets. Small molecule anti-inflammatory (rheumatoid arthritis, T1 diabetes) showed safety in phase I. 90%-owned animal health company with Australian marketing approval for swine growth hormone. 20% interest in VGX International, with DNA plasmid manufacturing plant in Texas.

Well-funded. Sufficient cash to carry the company through 2011.

Preclinical & Clinical DNA Vaccine Pipeline

Proprietary DNA Vaccine /Electroporation Product Pipeline

Indication	Product	R&D	Pre-Clin	IND	Ph 1	Partner/Funding
Cervical Cancer Therapeutic	VGX-3100	Completed	In Progress			
Avian Influenza	VGX-3400	Completed	In Progress			
Universal Influenza	Pandemic/Seasonal Flu	Completed	In Progress			
HIV Preventive	PENNVAX™ -B	Completed	In Progress			HIV Vaccine Trials Network
	PENNVAX™ -G	Completed	In Progress			NIH/NIAID
	PENNVAX™ -GP	Completed	In Progress			NIH/NIAID
HIV Therapeutic	PENNVAX™ -B	Completed	In Progress			University of Pennsylvania

License Partners & Collaborators Using Inovio's Electroporation Technology

Indication	Product	R&D	Pre-Clin	IND	Ph 1	Partner/Funding
Prostate Cancer	PSMA	Completed	In Progress			University of Southampton
Hepatitis C Virus	NS3/4A	Completed	In Progress			Tripep
Breast/Lung/Prostate	V934: hTERT	Completed	In Progress			Merck

Completed
 In Progress

Upcoming Milestones

- Complete Phase I, therapeutic cervical cancer vaccine (VGX-3100)
- Complete Phase I, preventive HIV PENNVAX-B™ vaccine (HVTN)
- Complete Phase I, therapeutic HIV PENNVAX-B™ vaccine
- Complete Phase I, avian flu vaccine (VGX-3400)
- Initiate Phase I, H1N1/universal vaccine preclinical development
- Phase I proof-of-concept data, prostate cancer vaccine (Southampton)
- Ongoing Phase I enrollment, vaccine targeting multiple cancers expressing hTERT (V934, Merck)
- License rheumatoid arthritis/type 1 diabetes anti-inflammatory (VGX-1027)
- Ongoing corporate development to secure partnerships and scientific grants.

Management

J. Joseph Kim, Ph.D.
President and Chief Executive Officer
Ex-Merck

Peter Kies
Chief Financial Officer
Ex-Ernst & Young

Mark L. Bagarazzi, M.D.
Chief Medical Officer
Ex-Merck regulatory affairs, vaccines

Kevin W. Rassas
Senior VP, Business Development
Int'l pharma management/biz dev

Niranjan Y. Sardesai, Ph.D.
Senior VP, Research & Development
Developed/commercialized products

Scientific Advisory Board

David B. Weiner, Ph.D., Chairman
Professor, University of Pennsylvania
DNA vaccine pioneer

Robert S. Langer, Sc.D.
Professor, Chem. & Biochem. Eng., MIT
International drug delivery expert

Iacob Mathiesen, Dr.Philos.
Electroporation delivery technology expert

Stanley A. Plotkin, M.D.
Emeritus Professor, Wistar & UPenn
Consultant, Sanofi Pasteur
Developed rubella vaccine

Board of Directors

Avtar Dhillon, M.D.
Executive Chairman, Inovio Biomedical
Ex-MDS Capital Group

Simon X. Benito
Retired Merck executive

Morton Collins, Ph.D.
General Partner, Battelle Ventures

J. Joseph Kim, Ph.D.
President & CEO, Inovio

Ng Tee Khiong
Director, Evia Capital Partners Pte.

Keith H. Wells
Ex-Salk Institute, Merck

David J. Williams
Former Chairman & CEO, Sanofi-Pasteur

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This Corporate Profile contains certain forward-looking statements relating to our business, including our plans to develop DNA vaccines and electroporation-based drug and gene delivery technologies. Actual events or results may differ from the expectations set forth herein as a result of a number of factors, including uncertainties inherent in pre-clinical studies, clinical trials and product development programs, including, but not limited to, the fact that pre-clinical and clinical results referenced in this profile may not be indicative of results achievable in other trials or for other indications, that results from one study may not necessarily be reflected or supported by the results of other similar studies and that results from an animal study may not be indicative of results achievable in human studies, our ability to obtain necessary regulatory approvals, the adequacy of our capital resources, capital market conditions, our ability to successfully integrate Inovio and VGX Pharmaceuticals and other factors set forth in our Annual Report on Form 10-K for the year ended December 31, 2008, our Form 10-Q for the three months ended September 30, 2009, and other regulatory filings from time to time.