POWERING A NEW DECADE OF DNA MEDICINES

ABOUT INOVIO

INOVIO is a biotechnology company committed to powering a new way forward in DNA medicines to save and protect lives worldwide. The company is focused on rapidly bringing to market precisely designed and delivered DNA medicines to treat, cure, and protect people from diseases associated with HPV, cancer, and infectious diseases.

With 15 current clinical programs involving more than 2,000 patients, INOVIO’s DNA medicines have consistently activated safe, robust, and fully functional T cell, and antibody responses against targeted pathogens, and cancers.

OUR PROPRIETARY OPTIMIZED PLASMID DESIGN AND DELIVERY TECHNOLOGY

INOVIO’s first-of-their-kind DNA medicines are precisely designed DNA plasmids delivered through INOVIO’s proprietary smart device — CELLECTRA® — directly into the body’s cells to produce an immune response robust enough to defeat disease.

INOVIO’S TECHNOLOGY ADVANTAGES

Clinical Efficacy
- Demonstrated clinical efficacy in Phase 2b study
- Lead candidate in Phase 3 for precancerous cervical dysplasia

Rapid and Scalable Manufacturing
- “Off-the-shelf” product; no cold-chain storage issues (room temp storage >1 yr.)
- Rapid development from concept to human in 7 months (Zika vaccine)
- Relatively inexpensive to manufacture, produce large quantities

Versatility and Boosting
- Targets virtually any antigenic sequence; combining multi-antigens into single vial
- Initiated first-in-human study of optimized dMAb®
- No anti-vector response — allows for effective boosting

OUR FOCUS: SERVING PATIENTS WITH URGENT HEALTH NEEDS

"I know HPV 16/18 can lead to cancer and that a scalpel can’t destroy a virus. I want a medicine that can destroy and clear the virus inside my body exactly where it is hiding."
— Precancerous cervical dysplasia patient, female, age 57

"Having surgery every four months to remove HPV growths in my throat has defined my life. Having a medicine to clear and destroy HPV would change everything..."
— Recurrent respiratory papillomatosis patient, male, age 43

INOVIO FAST FACTS

CORPORATE HEADQUARTERS
660 W. Germantown Pike, Suite #110
Plymouth Meeting, PA 19462

RESEARCH & DEVELOPMENT CENTER
10480 Wateridge Circle
San Diego, CA 92121

DEVICE ENGINEERING AND MANUFACTURING FACILITY
6769 Mesa Ridge Road
San Diego, CA 92121

INOVIO.com
DNA MEDICINES FOR HPV-ASSOCIATED DISEASES, CANCER, AND INFECTIOUS DISEASES

Based on clinical results, INOVIO’s technology has the potential to advance the standard of care for treating, curing, and preventing diseases associated with HPV, cancer, and infectious diseases.

HPV-Associated Diseases
INOVIO’s lead product candidate, VGX-3100, is in development to treat multiple conditions associated with HPV, the human papillomavirus. Nearly 80 million Americans are infected with HPV, and approximately 7 million HPV infections occur each year with high-risk HPV genotypes 16/18, which can lead to cervical, anal, and head and neck cancers, as well as other other cancers. VGX-3100 targets high-risk HPV 16/18 and is currently in Phase 3 trials for precancerous cervical dysplasia (REVEAL 1 and 2). MEDI0457, also targeting high-risk HPV 16/18, is in Phase 2 trials for head and neck, and other cancers with external funding from AstraZeneca. Data readouts from REVEAL 1 and MEDI0457 trials are expected in 2020.

Other strains of HPV can cause debilitating conditions such as recurrent respiratory papillomatosis (RRP), a rare and potentially fatal disease requiring multiple surgeries throughout life to remove tumors that obstruct the airway. A pilot study with INOVIO’s INO-3107 for RRP showed a significant delay in surgery due to lack of tumor recurrence in two (of two) patients; INOVIO is moving rapidly to advance trials under an orphan eligible regulatory path.

Cancer
INOVIO also has several clinical programs aimed at treating specific cancers, including glioblastoma multiforme (GBM), an aggressive malignancy of the brain (INO-5401 in partnership with REGENERON), as well as prostate cancer (INO-5151 in partnership with the Cancer Research Institute and the Parker Institute for Cancer Immunotherapy).

Infectious Diseases
For infectious diseases, INOVIO’s DNA medicines are being developed with funding from leading government agencies, including CEPI and DARPA, for HIV, Ebola, MERS, Zika, Lassa fever, and the COVID-19 coronavirus. And, INOVIO is pioneering the first-ever dMAb® in Phase 1 trials for Zika (INO-A002), in partnership with the Bill and Melinda Gates Foundation.

DNA MEDICINES PIPELINE

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<th>Product</th>
<th>Indication</th>
<th>Antigen</th>
<th>Preclinical</th>
<th>Phase 1</th>
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1. As of January 2020