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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health



National Institutes of Health Commercialization Assistance Program
(NIH-CAP)

Company Profile

Industry Sector: Vaccine Market

Company Overview: Najit Technologies, Inc. (NTI) is dedicated to the development of safe and effective vaccines for emerging and re-emerging infectious diseases. Moreover, our proprietary vaccine technology will benefit previously underserved and vulnerable populations, such as the very young, the elderly, and the immunocompromised. With increased safety and immunogenicity, our vaccine platform also better serves the general population. Our strategy is to develop vaccines that fit the unmet needs of these market segments in addition to military and civilian travelers who need safe but highly effective vaccines against potentially life-threatening infectious diseases in endemic countries.

Target Market(s):

International travelers
U.S. Military
Vulnerable populations: infants, elderly, and immunocompromised

Management

Leadership:

Mark Slifka, PhD, President and CSO
Ian Amanna, PhD, Assoc. Vice President for Research
Samantha Harmon, MBA, Head of Accounting and Administration

Key Consultants and Advisors:

Larry Johnson, MS, Quality Assurance, Biofinity Consulting
Peter Patriarca, MD, Clinical Regulatory Compliance, Biologics Consulting Group
Michael Phillips, JD, Corporate and Business Law, Davis Wright Tremaine, LLP

Key Value Drivers

Technology*: HydroVax™ technology is based on the simple, yet highly effective approach of using hydrogen peroxide (H₂O₂) to inactivate viruses and other microbes for vaccine development. The key to the HydroVax™ platform is that it kills target microorganisms without damaging important neutralizing epitopes or reducing overall immunogenicity. HydroVax™ is a broadly applicable platform technology that we believe will usher in a new era of advanced vaccine development.

Competitive Advantage: In side-by-side comparisons, HydroVax™ outperforms other forms of virus inactivation for vaccine preparation. Unlike other inactivating agents such as formaldehyde or betapropiolactone (BPL) that are in the public domain, the use of H₂O₂ for vaccine development represents patent-pending, proprietary technology with a strong IP position. Oxidation of nucleic acids is the mechanism of action underlying HydroVax™ technology and this differs substantially from formaldehyde (a crosslinking agent) and BPL (an alkylating agent), thus providing a significantly improved alternative to these older and outdated methodologies.

Plan & Strategy: Seeking a strategic partner to develop/co-develop new vaccines

*Technology funded by the NIAID and being commercialized under the NIH-CAP

Product Pipeline

We have prepared our own highly characterized Vero cell Master Cell Bank (MCB) and Working Cell Bank (WCB) under cGMP conditions and have optimized virus growth conditions and purification strategies for manufacturing several flavivirus vaccines. An important advantage of this platform technology is the ability to quickly add new vaccine targets to our growing product pipeline.

Vaccine*: Feasibility Preclinical cGMP Phase I Phase II Phase III Licensure



*Abbreviations: YFV; yellow fever virus, WNV; West Nile virus, DENV; dengue virus.

Keywords: vaccine manufacturing; emerging and re-emerging infectious disease; military and traveler's market; yellow fever; dengue hemorrhagic fever