

 \langle



Checkpoint Inhibitor Powered Vaccines

ABOUT VIRION THERAPEUTICS

Virion Therapeutics, LLC, is a science driven company developing innovative immune-based treatments for virally-associated cancers and chronic viral infections. Our vaccines, ChiVax and ChiVax-gD, represent novel and highly effective platforms to induce potent and sustained T cell-mediated immune responses against transformed or infected cells, thereby allowing us to target common diseases with unmet medical needs. Each component comprising our chimeric vaccine candidates has completed pre-clinical testing that allow for their translation into clinical trials for a number of different indications. Guided by our scientific and management expertise, these platforms may help cure such devastating diseases as HPV-induced cancers and chronic Hepatitis B infections.

Virion's pre-clinical research leverages the substantial work done by Dr. Hildegund Ertl, MD at The Wistar Institute. The Company has carefully selected each program, building upon well-established scientific foundations and deriving unique strategies from information available from a broad range of external third party clinical programs. Currently, HPV-induced cancers and chronic Hepatitis B virus infections have poor therapeutic options for disease management – as such, these disease states will serve as initial development programs for the company.

Founded in early 2018 to advance technology licensed from The Wistar Institute, a global leader in vaccine science, Virion has built an experienced biotechnology management team, augmented by its advisory board, that has extensive domain knowledge in antiviral, vaccine and oncology therapeutic arenas.

PLATFORM TECHNOLOGIES

Background on T-Cells and Disease

T-cells are key to successfully fighting infections and cancers.

However, in chronic viral infections or established cancers, Tcells can be rendered ineffective by other cell types or become exhausted from prolonged stimulation. Exhaustion, which is characterized by loss of Tcell function and increased expression of co-inhibitory markers on the cell surface, has led to the development of new and effective anti-cancer therapies referred to as checkpoint inhibitors. These cancer treatments use monoclonal antibodies to remove the "brakes" placed on the immune system, allowing Tcells to re-engage the tumor or infection. The discovery and use of checkpoint inhibitors in the treatment of various cancers has been revolutionary, however, there are limitations: they only work in certain cancer types, are costly to make, require intravenous infusion and are not immune from tumor escape or resistance, often after a short period of time. In addition, since these agents are infused into the bloodstream and therefore go

throughout the body, side effects can occur that could be avoided if treatment was directly targeted to infected/cancerous cells.



MANAGEMENT

BOARD

SCIENTIFIC ADVISORS

< MANAGEMENT



Bernard C. Rudnick, MBA Chief Executive Officer



Hildegund Ertl, MD Scientific Co-Founder



Andrew D. Luber, Pharm.D President & Chief Operating Officer



Neal Murakami, CPA Chief Financial Officer & Controller



Jacob P. Lalezari, MD Chief Medical Officer



Colin Magowan Vice President Business Development



Bruce F. Mackler, Ph.D., JD Vice President Regulatory Affairs

< BOARD OF DIRECTORS



Teresa Wright, MD



Rifat Pamukcu, MD



Thomas Penn, JD, MBA



Bernard C. Rudnick, MBA



Katherine A. High, MD



Andrew D. Luber, Pharm.D







Joel Palefsky, MD



Frank Borriello, MD, PhD

Steve Projan, PhD, FAAM

Scott Strome, MD

SCIENTIFIC PUBLICATIONS AND PRESENTATIONS

Zhang Y and Ertl CJ (2014). <u>The Effect of Adjuvanting Cancer Vaccines with Herpes Simplex Virus</u> <u>Glycoprotein D on Melanoma-Driven CD8+ T Cell Exhaustion</u>. J. Immunol. 193(4): 1836-46.

Lassaro MO, et al. (2011). <u>Active Immunotherapy Combined With Blockade of a Coinhibitory Pathway</u>. <u>Achieves Regression of Large Tumor Masses in Cancer-prone Mice</u>. Mol. Ther. 19(9):1727-36.

Diniz MO, et al. (2010). <u>Immune Responses and Therapeutic Antitumor Effects of an Experimental DNA</u> Vaccine Encoding Human Papillomavirus Type 16 Oncoproteins Genetically Fused to Herpesvirus <u>Glycoprotein D</u>. Clin. Vaccine Immunol. 17(10): 1576-83.

DiMenna L, et al. (2010). <u>Augmentation of Primary Influenza A Virus-Specific CD8+ T Cell Responses in Aged Mice through Blockade of an Immunoinhibitory Pathway.</u> J. Immunol. 184: 5475-5484).

Chen H, et al. (2010). <u>Adenovirus-Based Vaccines: Comparison of Vectors from Three Species of</u> <u>Adenoviridae. J.</u> Virol. 84(20): 10522-32.

Lassaro MO, et al. (2008). <u>Targeting of antigen to the herpesvirus entry mediator augments primary</u>. <u>adaptive immune responses</u>. Nat. Med. 14(2): 205-212.

Reyes-Sandoval A, et al. (2004). <u>Human Immunodeficiency Virus Type 1-Specific Immune Responses in</u> <u>Primates upon Sequential Immunization with Adenoviral Vaccine Carriers of Human and Simian</u> <u>Serotypes</u>. J. Virol. 78(14): 7392-7399.

CONTACT US

info@viriontx.com 800-841-9303

Home

About

Platform Technologies

logies Team

Scientific Publications

ations

Contact News