



Bharat Biotech Inks Licensing Deal with Washington University School of Medicine in St. Louis to advance COVID-19 Intranasal Vaccine Technology

Hyderabad, India, 23 September 2020: Vaccine Innovator, Bharat Biotech announces today, a licensing agreement with Washington University School of Medicine in St. Louis for a novel chimp-adenovirus, single dose intranasal vaccine for COVID-19. Bharat Biotech owns the rights to distribute the vaccine in all markets except USA, Japan and Europe.

While the Phase I trials will take place in Saint Louis University's Vaccine & Treatment Evaluation Unit, Bharat Biotech, upon obtaining the required regulatory approval, will pursue further stages of clinical trials in India and undertake large scale manufacture of the vaccine at its GMP facility located in Genome Valley, Hyderabad.

We are proud to collaborate on this innovative vaccine. We envision that we will scale this vaccine to 1 billion doses, translating to 1 billion individuals vaccinated receiving a single-dose regimen. An intranasal vaccine will not only be simple to administer but reduce the use of medical consumables such as needles, syringes, etc., significantly impacting the overall cost of a vaccination drive.

Our experience in viral vaccines, manufacturing capabilities, and distribution continue to be our strong suit in ensuring safe, efficacious, and affordable vaccines. It is prudent for Bharat to be involved in diverse but tenable projects to provide a much-needed vaccine against COVID-19 reaches all citizens of the world." **Dr. Krishna Ella, Chairman and Managing Director of Bharat Biotech**, stated.

This intranasal vaccine candidate has shown unprecedented levels of protection in mice studies; the technology and data having been recently published in the prestigious scientific journal Cell and in an editorial in Nature.

Dr. David T. Curiel, MD, Ph.D., Director of Biologic Therapeutics Center and Professor of Radiation Oncology at Washington University School of Medicine in St. Louis and Precision Virologics Interim CEO said, *"The ability to accomplish effective immunization with a single nasal dose is a major advantage, offering broader reach and easier administration. An effective nasal dose not only protects against COVID-19, but it also prevents the spread of the disease by offering another kind of immunity that occurs primarily in the cells that line the nose and throat. Most other vaccine candidates currently under development can't do that."*

This vaccine expands Bharat's portfolio of vaccines that are currently being developed and are in various stages of clinical development including COVAXIN® which is currently in Phase II human clinical trials in India.

About Bharat Biotech: Bharat Biotech has established an excellent track record of innovation with more than 140 global patents, a wide product portfolio of more than 16 vaccines, 4 bio-therapeutics, registrations in more than 116 countries and WHO Pre-qualifications.

Located in Genome Valley, the hub for the global biotech industry, the company has built a world-class vaccine & bio-therapeutics, research & product development, Bio-Safety Level 3 manufacturing, and vaccine supply and distribution. Having delivered more than 4 billion doses of vaccines worldwide, Bharat Biotech continues to lead innovation and has developed vaccines for influenza H1N1, Rotavirus, Japanese Encephalitis, Rabies, Chikungunya, Zika and the world's first tetanus-toxoid conjugated vaccine for Typhoid.

The company is proficient in conducting extensive multi-centre clinical trials, having completed more than 75 trials enrolling more than 300,000 participants globally. Our commitment to global social innovation programs and public-private partnerships resulted in the introduction of path-breaking WHO pre-qualified vaccines BIOPOLIO® ROTAVAC® and Typbar TCV® combatting Polio, Rotavirus and Typhoid infections respectively. Bharat Biotech has successfully partnered with NIV-ICMR having developed JENVAC®, a licensed Japanese Encephalitis vaccine.

The recent acquisition of the Rabies vaccine facility, Chiron Behring, Ankleshwar has positioned Bharat Biotech as the largest Rabies vaccine manufacturer in the world. To learn more about Bharat Biotech visit www.bharatbiotech.com

About Precision Virologics

Precision Virologics is a vaccine company developing advanced generation adenoviral vaccines. Precision's lead agent is a potency enhanced simian adenovirus-based COVID-19 vaccine delivered via the nasal route. Precision also has vaccine development programs for influenza, Zika, and chikungunya. Advanced molecular engineering of adenovirus provides technology platforms to provide key advantages. Precision's unique capabilities provide ideal positioning for rapid development of effective vaccines for emerging bioweapon and pandemic threats. Precision Virologics receives business development services from BioGenerator, the accelerator and investment arm of BioSTL.

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