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Dyadic, Serum Institute to develop affordable antibodies and vaccines

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Dyadic International, a global biotechnology company focused on further improving and applying its proprietary C1 gene expression platform to speed up the development, lower production costs and improve the performance of biologic vaccines, drugs and other biologic products, at flexible commercial scales has announced a research and commercialization collaboration with Serum Institute of India Pvt., Ltd, one of the world's largest vaccine manufacturers, to develop and manufacture up to twelve antibodies and vaccines using Dyadic's C1 gene expression platform. This important collaboration is focused on making biologic vaccines & drugs accessible and more affordable to patients worldwide while lowering the financial burden on the global healthcare system.

Under the terms of this collaboration, Serum anticipates applying Dyadic's C1 technology to express up to twelve proteins - 8 MABs and 4 rVaccines and will undertake commercially best efforts to fully develop and commercialize the proteins expressed from Dyadic's C1 technology. Dyadic has agreed to grant Serum the option to obtain an exclusive commercial sublicense for each of the twelve (12) proteins in return for certain research funding, milestone payments and royalties for 15 years from the date of the first commercial sale.

"We are very excited to collaborate with Serum as our philosophies are directly aligned. Our goal is to offer our C1 gene expression platform to biotech and pharmaceutical companies as well as renowned institutes and governmental agencies that are committed to reducing the cost of healthcare and saving lives. Serum is a worldwide leading vaccine and drug development institution and we are excited by the science and results we believe we can achieve together," said Mark Emalfarb, Dyadic's CEO.

"Serum has a proven track record of more than 50 years of developing and delivering affordable vaccines and drugs globally and we are eager to incorporate Dyadic's industrially proven C1 gene expression platform into our antibody and vaccine development and manufacturing programs," said Adar Poonawalla, CEO, Serum Institute of India. He further stated that "In

recent years, monoclonal antibodies have emerged as preferred therapeutic candidates for the treatment of a multitude of disorders and diseases. These include a broad range of cancers, auto-immune diseases, microbial infections. Traditionally, antibody treatment is extremely costly and not widely affordable in the developed and developing worlds. We at Serum are committed to finding ways to speed the development, lower the cost and improve the performance of high quality, affordable antibodies and vaccines which have the potential to treat and prevent various diseases in India and across the globe. Dyadic's C1 gene expression platform has the potential to help us deliver on our commitment to bring down the cost of biologics in order to make them more accessible and affordable to patients globally."

"This collaboration will further demonstrate the potential of C1 to become a platform of choice for manufacturing protein-based biologics and vaccines because of its speed of development and low cost of goods," said Matthew Jones, Dyadic's CCO.

Serum Institute of India Pvt. Ltd. is the world's largest vaccine manufacturer by number of doses produced and sold globally (more than 1.3 billion doses) which includes Polio vaccine as well as Diphtheria, Tetanus, Pertussis, Hib, BCG, r-Hepatitis B, Measles, Mumps and Rubella vaccines. It is estimated that about 65% of the children in the world receive at least one vaccine manufactured by Serum Institute. Vaccines manufactured by Serum are accredited by the World Health Organization, Geneva and are being used in approximately 170 countries across the globe in their national immunization programs, saving millions of lives.

Serum is ranked as India's No.1 biotechnology company, manufacturing highly specialized lifesaving biologics like vaccines using cutting edge genetic and cell-based technologies, antisera and other medical specialties.

Serum was founded in 1966 by Dr. Cyrus Poonawalla with a mission of manufacturing life-saving immuno-biologics, which were in short supply in India and were being imported at extremely high prices. Thereafter, several life-saving biologics were manufactured by Serum with the result that the country became self-sufficient for Tetanus Anti-toxin and Anti-snake Venom serum, followed by the DTP (Diphtheria, Tetanus and Pertussis) group of Vaccines and then later with the MMR (Measles, Mumps and Rubella) group of vaccines.

The philanthropic philosophy of Serum continues with its work on newer vaccines such as Rotavirus vaccine, Meningitis A vaccine and other combination vaccines.