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Protection from birth onwards



# **Overview**

**Bithoven Biologicals, Netherlands** India's No.1 biotechnology company 1.6 bn Vaccine doses sold globally per year 170 Countries to which our vaccines are supplied WHO pre-qualified vaccines; Highest vaccine presentations in the world for a 20+ single manufacturer International acquisitions; Bilthoven Biologicals (Netherlands) & Praha Vaccines (Czech Republic) Praha Vaccines, Czech Republic

In association with...

WHO | UNICEF | PAHO | Gavi | PATH | Bill & Melinda Gates foundation

2005 Q-VAC (DTP-HepB Combination Vaccine)

1993
First vaccine Pre-qualified by
World Health Organization
(WHO) and launch of
TRESIVAC (MMR Vaccine)

1989

1981

Polyvalent Anti-Snake Venom Serum (Asia)

M-VAC (Measles Vaccine)

1991 Polyvalent Anti-Snake Venom Serum (Africa)

(BCG Vaccine)

2001 GENEVAC B (Hepatitis B Vaccine (rDNA ))

Was a

2004 Sii RABIVAX (The world's only adsorbed liquid HDC Rabies Vaccine)

2010
NASOVAC (H1N1 Influenza Vaccine),
ENZAVAC (H1N1 Influenza Vaccine inactivated),
MenAfriVac (Meningococcal A conjugate vaccine) and REPOITIN (r-HuEPO)

2008

PENTAVAC (Combi-pack of Pentavalent Vaccine (DTP-HepB+Hib)) and QUADROVAX (Quadrivalent Vaccine (DTP+Hib))

2007

HIB PRO (Hib Vaccine)

and ONCO-BCG (BCG

Vaccine for Bladder

Cancer)



2009
PENTAVAC SD/PFS
(Liquid Pentavalent Vaccine (DTP-HepB-Hib))

2012
Made first overseas acquisition,
Bilthoven Biologicals,
Netherlands.
Launched NASOVAC-S (Trivalent seasonal influenza vaccine)



2011
POLIOVAC PFS (Inactivated polio vaccine)

# 2017 Made second overseas acquisition, Praha

Vaccines, Czech Republic
Launching Tresivac NF (India's first needle free
MMR vaccine),
Rotasiil (First thermostable Rotavirus Vaccine),
RABISHIELD (World's first Rabies Human
Monoclonal antibody, recombinant),



YEARS
1967-2017
Protection from birth onwards



"Saving the lives of millions of children across the globe."

1967
Operations began with
manufacture of Tetanus Antitoxin
followed by Tetanus Toxoid

1974

Commenced production of DTP

Vaccine

# Intensive R&D – creating solutions for tomorrow

Our R&D initiatives include development of better adjuvants, heat stable vaccines, conjugate vaccines, monoclonal antibodies and others by using cutting edge genetic and cell based technologies. We constantly strive on improving the methods of vaccine delivery for our vaccines viz. use of jet injectors. Furthermore, there is an extensive range of vaccines in the development pipeline undergoing various stages of testing and clinical evaluation.

High quality pre-clinical and clinical research are performed in compliance with GLP and GCP guidelines on all products before they are marketed worldwide. After licensure, a diligent pharmacovigilance is maintained as per international norms.

"Our R&D efforts are focused on developing vaccines that will meet the specific needs of different segments of the global population."





# **State-of-the-Art Production Facilities**

"We have the most modern laboratories with high-tech machinery and computerized equipment for the production of our life saving biologicals." Serum Institute has large bio-reactors for manufacturing and lyophilisation facilities of parenterals which are state-of-the-art and comply with BSL-2 and BSL-2+ standards. Equipment providing Class 100 and Class 10,000 conditions are also electronically controlled.

We have sophisticated, high resolution, electronically controlled screeners to inspect products for any minute particulate matter undetectable to the normal human eye. Our sophisticated machines are capable of working at high speeds and have been installed with filling accuracy to the third digit decimal point to ensure accuracy and consistency.



# **Commitment to Quality**

Our quality control laboratories are equipped with a wide array of sophisticated analytical equipment. In addition, each of our manufacturing facilities have their own laboratories to perform various quality control and assurance tests. While strict adherence to cGMP norms and SOPs ensures consistent quality for all batches, regular training of our personnel keeps us updated with the latest advances in production & quality testing standards.

Numerous product approvals from WHO and national & international regulatory authorities stand as testimony of our commitment to quality. Producing high quality vaccine necessitates unrelenting & detailed Quality Assurance which is guaranteed by following quality systems & frequent audits.

"Emphasis on quality without compromise is ingrained in our work culture and constant modernization of equipment ensures high quality standards."





## **Product List**

### **BACTERIAL VACCINES**

Diphtheria-Tetanus-Pertussis (DTwP) Vaccine

1 dose, 10 dose, 20 dose

Diphtheria and Tetanus (Td) Vaccine for Adults and Adolescents

1 dose, 10 dose, 20 dose

Diphtheria and Tetanus (DT) Vaccine (Pediatric)

1 dose, 10 dose, 20 dose

Diphtheria and Tetanus (DT) Vaccine (Pediatric) (Thiomersal Free)

1 dose

**Tetanus Toxoid (TT) Vaccine** 

1 dose, 10 dose, 20 dose

**BCG Vaccine** 

10 dose, 20 dose

### **VIRAL VACCINES**

**Measles Vaccine** 

1 dose, 2 dose, 5 dose, 10 dose

Rubella Vaccine

1 dose, 2 dose, 5 dose, 10 dose

Measles, Mumps and Rubella (MMR) Vaccine

1 dose, 2 dose, 5 dose, 10 dose

Measles and Rubella (MR) Vaccine

1 dose, 2 dose, 5 dose, 10 dose

Hepatitis B Vaccine (Pediatric/Adult)

1 dose, 10 dose

Hepatitis B Vaccine (Pediatric/Adult) (Thiomersal Free)

1 dose

**RABIVAX-S** 

Rabies Vaccine (lyophilised)

1 dose

ROTASIIL

Rotavirus Vaccine (lyophilised)

1 dose, 2 dose

Poliomyelitis Vaccine (Inactivated)

1 dose, 2 dose, 5 dose

Poliomyelitis Vaccine (Oral)

Bivalent type 1 and 3

1ml - 10 dose. 2ml - 20 dose

### COMBINATION VACCINES

Diphtheria, Tetanus, Pertussis and Hepatitis B (DTwPHB) Vaccine

1 dose, 10 dose

Diphtheria, Tetanus, Pertussis and Haemophilus influenzae Type b

Conjugate (DTwPHib) Vaccine

1 dose

Diphtheria, Tetanus, Pertussis, Hepatitis B and Haemophilus influenzae Type b Conjugate (Penta) Vaccine

1 dose, 10 dose

### POLYSACCHARIDE CONJUGATE VACCINES

Haemophilus influenzae Type b Conjugate Vaccine

1 dose

MenAfriVac

Meningococcal A Conjugate Vaccine (lyophilised)

(5mcg, 10mcg) 10 dose

### INFLUENZA VACCINE

NASOVAC-S

Influenza Vaccine Seasonal trivalent (Intranasal)

1 dose

### **ANTI SERA**

Tetanus Antitoxin 1500 IU, 3000 IU, 20000 IU

### **URO-ONCOLOGY**

ONCO-BCG (BCG LIVE) 40 mg/ml

### RECOMBINANT PRODUCTS

REPOITIN (Vial)

Erythropoietin Injection B.P.

1000 IU, 2000 IU, 3000 IU, 4000 IU, 6000 IU,

8000 IU, 10000 IU

**REPOITIN** (PFS)

Erythropoietin Injection B.P.

1000 IU, 2000 IU, 3000 IU, 4000 IU, 6000 IU,

8000 IU, 10000 IU

RABISHIELD

Rabies Human Monoclonal Antibody

100 IU, 250 IU

### **PIPELINE PRODUCTS**

**Tdap Vaccine** 

Pentavalent Meningococcal Conjugate Vaccine (A, C, Y, W-135, X)

**Pneumococcal Conjugate Vaccine** 

**HPV** vaccine

Rotavirus vaccine (Liquid)

Recombinant BCG vaccine

**ErepoXen (Polysialylated Erythropoietin)** 

Dengue vaccine

**Dengue Monoclonal Antibody** 

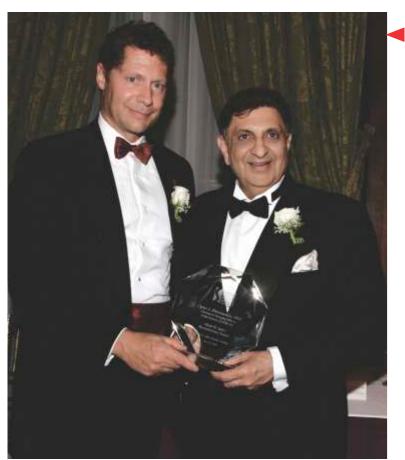
# **Major Achievements**

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"Serum Institute of India has demonstrated unparalleled focus in supplying several hundred million doses of its Measles and Rubella Vaccines to curb the scourge of Rubella and Measles to 38 regions in America, for the past 16 years, for routine immunization as well as for mass campaigns. The contribution of Serum Institute has been recognized in a true sense, since the region of Americas have showed no recorded cases of endemic Rubella since February 2010."

The Pan American Health Organization (PAHO) and the Pan American Health and Education Foundation (PAHEF) presented Dr. Cyrus S. Poonawalla with the award for 'Excellence in Inter-American Public Health', making him the first Indian to get this prestigious award at the hands of Dr. Mirta Roses Periago for his extraordinary contribution to eliminate Rubella and Congenital Rubella Syndrome in America, on 28th September 2010, Washington D.C., USA.

From right-Dr. Mirta Roses Periago, Director – PAHO, Dr. Jose A. Cordova Villalobos, Secretary of Health (Mexico), Dr. Cyrus S. Poonawalla and Dr. Jon Andrus, Deputy Director – PAHO.



Dr. Cyrus S. Poonawalla receiving the Sabin Humanitarian Award and Sabin Global Corporate Philanthropy Award at the University Club in New York, U.S.A., on 29th June 2005 at the hands of Dr. Seth Berkley, President, International AIDS Vaccine Initiative (Associate Bill Gates Foundation) and the current President of GAVI (Global Alliance for Vaccine & Immunization).



Late Dr. APJ Abdul Kalam, Hon.
President of India presenting the
'Padmashree' award to Dr. Cyrus S.
Poonawalla on 28th March 2005 at
Rashtrapati Bhawan, New Delhi.

# **Notable Dignitaries at Serum**



Hon'ble Prime Minister of India, Shri.
Narendra Modi understanding from
Dr. Cyrus S. Poonawalla the facilities
and impact of "Make in India" vaccine
used globally, manufactured by Serum
Institute of India on the occasion of
PM's visit on 13th November 2016.



"This is an amazing company, and its facilities would be considered state of the art anywhere in the world. Serum produces low cost, high quality vaccines used in 140 countries around the world."

"Serum's work has dramatically lowered the cost of Pentavalent vaccines (and a great many others) and is a true contribution by India to the well-being of the world."

**Mr Bill Gates** (centre), co-founder of the Bill & Melinda Gates Foundation with Dr Cyrus S. Poonawalla (left) and Mr Adar C. Poonawalla (right) during his visit to the Serum Institute of India at Pune on 31st May 2012.



His Royal Highness Prince of Wales (center) being explained the Laboratory Sites during his visit to Serum Institute of India with Dr. Cyrus S. Poonawalla (right) and Mr. Adar C. Poonawalla (left) on 10th November 2013.



Dr. Jonas Salk, inventor of the injectable
Polio Vaccine at Serum Institute of India.
From left: Dr. Jonas Salk, Dr. Cyrus S.
Poonawalla and Dr. Jal Mehta.

# **Corporate Social Responsibilities (CSR)**

Adar Poonawalla Clean City is an INR 1 Billion environmentally sustainable initiative with an objective to provide Indian urban citizens a healthier life through able management & local government support. This initiative addresses the urban challenge of wet waste management and has a fleet of specially designed trucks, thousands of trash bins and a slew of garbage processing plants.

The multispeciality Villoo Poonawalla Memorial Hospital in Pune provides special attention to people below poverty line with quality treatments at affordable rates. Furthermore, we have often supplied various vaccines free of cost or at subsidized prices to benefit global & national masses. We at Serum Institute also have a Leprosy Rehabilitation Center for accommodation and training of Leprosy cured handicapped persons enabling them to support themselves and live a dignified life.

We believe that education is important, especially for the underprivileged and thus have constructed and supported 5 English medium schools in tier 2 cities of India.

Measures have been undertaken to reduce the company's carbon footprint by ensuring a reduction in GHG emissions by installing 57.2 MW wind power projects utilizing the available wind energy. Currently almost 85% of our energy requirements are met by wind power.

A pilot plant providing 2 million liters of drinking water per day with a plan to increase this to 10 million liters has been commissioned to provide clean drinking water to those who do not have access to clean potable water in Pune city. We also recycle about 65% of waste water to achieve better water efficiency.

Serum Institute of India has also contributed towards several projects like widening and asphalting of roads, constructing public toilets and bridges, developing and maintaining gardens and also playgrounds to improve the quality of life of the local population.

"We recognize the importance of having a sustainable social, environmental and economic development that not only provides a healthier environment but also helps the citizens to thrive and achieve their goals"







Clean Drinking Water Plant, Pune, India







Towards 100% Green energy generation



Villoo Poonawalla Memorial Hospital, Pune, India