

Panacea Biotec Ltd.

Rank: 3

Basic Information:

Company Name	Panacea Biotec
Address	B-1 Extn./ A-27 Mohan Co-op. Industrial Estate Mathura Road New Delhi -110044, India
Telephone	+91-11-26945270,26974500, 41678000
Fax	+91-11-41044550
Email	corporate@panaceabiotec.com
Website	www.panacea-biotec.com

Company Overview:

Company Focus	<ul style="list-style-type: none"> • Panacea Biotec is a biopharmaceutical company involved in research, manufacturing and marketing of branded pharmaceutical formulations, vaccines and natural products • Panacea is headquartered in New Delhi, with an office in Mumbai • Panacea Biotec is the 2nd largest vaccine producer in India • In a survey by the Association of Biotechnology Led Enterprises (2007), Panacea was declared the 3rd largest biotechnology company in India • At this stage the company's focus in the biotech segment is limited to the vaccines segment • The company has over 2,800 employees including over 250 scientists • The company is one of six companies in the world to have successfully received WHO pre-qualification for oral polio vaccines • Panacea Biotec supplies its oral polio vaccine to India's immunization programs and to UNICEF • The company recently opened its fifth R&D center, the Global Research and Development Centre (GRAND), in Mumbai for conventional and biotech drugs. Research at the facility will involve biological, clinical, pharmaceutical sciences and engineering or design to develop novel drug delivery systems-based products • Panacea Biotec's other four R&D Centres at Lalru, Delhi and Mohali focus on drug delivery, vaccines, drug discovery for both biopharmaceuticals and small molecules • The new 40-member team at the R&D Centre in Mumbai will focus on areas of cancer, diabetes, organ transplants and hormones
----------------------	--

Lead Marketed Products	<ul style="list-style-type: none"> • Enivac HB • Ecovac – 4 • Easyfour • Easyfive • Monovalent Oral Polio Type I Vaccine • Monovalent Oral Polio Type III Vaccine • Poliomyelitis Vaccine
Lead Products Under Development	<ul style="list-style-type: none"> • Thermostable pentavalent vaccine • Recombinant Anthrax vaccine • Recombinant Dengue vaccine
Core Team	<ul style="list-style-type: none"> • Mr. Soshil Kumar Jain, Founder and Chairman • Mr. Ravinder Jain, Managing Director • Mr. Rajesh Jain, Joint Managing Director • Mr. Sandeep Jain, Joint Managing Director • Mr. Sumit Jain, Director <p>Non-Executive Directors</p> <ul style="list-style-type: none"> • Mr. R.L. Narasimhan, Director • Mr. N.N. Khamitkar, Director • Mr. Sunil Kapoor, Director • Mr. M.L. Kalra, Director • Mr. Gurmeet Singh, Director • Mr. K.M. Lal, Director • Dr. A.N. Saksena, Director
Company Strategy	<ul style="list-style-type: none"> • To retain their strong foothold in the Indian vaccine market by introducing new and innovative vaccines • Expanding their presence by launching, as well as licensing out, some of its patented products for manufacture/marketing in developed countries in Europe, North America and Latin America • To launch their patented products in the developed markets of EU and US

Information on Company's Management:

Chairman	Mr. Soshil Kumar Jain
Managing Director	Mr. Ravinder Jain
Joint Managing Director	Dr. Rajesh Jain and Mr. Sandeep Jain
Director	Mr. Sumit Jain
Business Development Contact Person	<p>Mr. Rajiv Sharma Head Business Development Phone : +91-11-41678000; Extension - 2544 Fax : +91-11-41679054 Email: rajivsharma@panaceabiotec.com</p>

Biographies of Core Management Team:

Biography of Chairman

Mr. Soshil Kumar Jain (age 75)

- Mr. Soshil Kumar Jain is the founder, Promoter/Director of Panacea Biotec and has been the Chairman since October 1984
- He is the Director on Board in the following organizations
 - Panhaber Biotech Pvt Ltd
 - Radicurra & Co. Ltd
 - Neophar Alipro Ltd
- He is a qualified Pharmacist with more than 50 years experience in the Pharmaceutical industry
- He started his career in the Indian Pharmaceutical industry by joining his family business as Chemist in a shop setup by his father
- Prior to promoting Panacea Biotec, he was associated with the Radico & Co., taken over by Radicura engaged in the retail and wholesale trading of Pharmaceutical products

Biography of Senior Executives

Mr. Ravinder Jain, Managing Director

- Mr. Ravinder Jain was initially appointed as a director of the Company in November 1984 and became a full-time director in February 1985
- He has been the Managing Director of the Company since March 1996
- He is a director on the board of the following organizations
 - Lucre Finance Ltd
 - Scintilla Securities Ltd
- Prior to joining the Company, he was associated with Radicura & Co., a Partnership firm engaged in the retail and wholesale trading of pharmaceutical products
- He has 25 years experience in business collaborations and tie-ups, international marketing, business development, finance and corporate administration

Dr. Rajesh Jain, Joint Managing Director (age 44)

- Dr. Jain serves as Joint Managing Director for Panacea Biotec Ltd. providing strategic management and guidance
- He is responsible for marketing, and research and development
- He holds several leading positions such as:
 - Chairman of Biotechnology Sub-Committee, Confederation of Indian Industry (CII) northern region
 - Vice President of Association of Biotechnology Led Enterprises (ABLE) northern region
 - Consultant to WHO for the development of Polio Vaccine (for 2 years)
 - Partner in Global Alliance for Vaccines and Immunization (GAVI Board-member for developing country vaccine manufacturers WHO)

Financial Information:

Year	Biopharma Revenue (Million USD)	Total Income (Million USD)	Gross Profit (Million USD)	Net Income (Million USD)
2007	165.62	209.92	52.27	36.7
2006	101.57	136.9	25.05	15.23
2005	52.65	81.38	10.73	7.51

Company History:

Year	Events
1984	Panacea Drug (P) Ltd. was formed
1988	Established a plant for vaccines production at New Delhi, under the name of Radicura Pharma
1989	Pharmaceutical formulations plant at New Delhi, under the name of Panacea Drug P Ltd
1993	Merger of Panacea Drugs (P) Ltd. & Radicura Pharma to form Panacea Biotec Ltd
1995	IPO of Equity Shares of USD \$3.94 million
1995	State-of-the-art Drug Delivery R&D center at Lalru
1997	First Product Patent in Several Countries
1999	Panacea Biotec acquired Radicura and is holding 100% shareholding in Radicura
2001	R&D tie up with European MNC
2002	In-licensing Agreement with Biotechnology Consortium of India for Development & Commercialization of Anthrax Vaccine
2002	Commissioning of Recombinant Vaccine Production Plant
2004	In-licensing agreement with National Institute of Immunology, New Delhi, for Japanese Encephalitis Candidate Vaccine
2004	Marketing Joint Venture with Chiron (now Novartis) Vaccines, UK
2004	Collaboration with Cambridge Bio-stability, UK, for Thermo Stable Vaccines <ul style="list-style-type: none">• Panacea acquires 10% stake in Cambridge Biostability
2005	In-licensing agreement with National Institute of Health, US for Hair Growth Hormone

2006	<ul style="list-style-type: none"> • WHO cGMP complaint ultra modern Pharmaceuticals formulation facility at Baddi, Himachal Pradesh • Landmark collaborations with The Netherlands Vaccine Institute (The Netherlands Vaccine Institute (NVI)) for manufacture & marketing of finished Inactivated Polio Vaccine (IPV) and a number of IPV based combination vaccines in India and across the globe • Collaboration with PT.Bio Farma to manufacture & market Measles Vaccine • Inauguration of Biopharmaceutical R&D Centre at New Delhi • Pre-Qualification Certification from WHO for Supply of Recombinant Hepatitis-B Vaccine to UN Agencies • Collaboration with National Research Development Corporation (NRDC) for technology transfer of Foot and Mouth Vaccine
2007	<ul style="list-style-type: none"> • Vaccine Formulation Plant at Baddi • Research Agreement with Punjab University to develop New Chemical Entities for Psychiatric Disorders

Other Facts:

Ownership	Public-Limited Company
Parent Company (If Any)	None
Subsidiaries and/or Sales Divisions	<p>Subsidiaries:</p> <ul style="list-style-type: none"> • Radicura & Co. • Best On Health • Cambridge Biostability • Panheber Biotec <p>Sales Divisions:</p> <ul style="list-style-type: none"> • Panacea Biotec has divided its sales and marketing network for pharmaceutical formulations into strategic business units (SBUs), which comprise: <ul style="list-style-type: none"> ○ Critical Care ○ Diacar ○ Procare ○ Growcare • The company has also moved ahead to launch another new SBU, Onctrust to deal with oncology products

**Agreements
with Other
Organizations**

Panacea has entered into acquisition deal with approximately eight companies. Majority of the acquisitions are targeted towards strengthening its vaccine portfolio:

- **Cambridge Biostability Ltd., UK** - Panacea Biotec has entered into strategic collaboration for developing thermo stable vaccines applying CBL's patented 'Stable Liquid Technology' over the Company's existing range of vaccines
 - **National Institute of Immunology, India** - ten-year license agreement for in-licensing of technology and processes for production of tissue culture derived formalin inactivated, Japanese encephalitis vaccine
 - **Biotech Consortium India Ltd.** - Panacea has entered into a ten-year in-licensing arrangement with Biotech Consortium India Ltd. for the development, manufacture and marketing of anthrax vaccine developed by Jawahar Lal Nehru University, India
 - **National Institute of Health, US** - Panacea Biotec has entered into an in-licensing arrangement for use of a peptide based product for generation of hair follicles and hair growth
 - **Netherlands Vaccine Institute** - The agreement with NVI is for manufacturing and marketing of Inactivated Polio Vaccine in global markets except Netherlands, Denmark, Norway and Finland
 - **National Research Development Corporation, India** - This is an in-licensing arrangement for manufacturing the Foot and Mouth Disease (FMD) vaccine developed by Indian Veterinary Research Institute (IVRI)
 - **PT Bio Farma, Indonesia** - This is an agreement to manufacture & market the Measles Vaccine and plans to supply the vaccine to UNICEF, PAHO and CIS, African, LATAM and Asian Countries in furtherance to Global Measles Reduction Strategy of WHO and UNICEF
 - **Chiron Panacea Vaccines Pvt. Ltd.** - Chiron Panacea is a joint venture company incorporated in fiscal 2005 in India with Chiron Corporation, UK (now Novartis Vaccines) for marketing of combination and other vaccines in India
-

Marketing Information:

Marketed Biological Products	Sl.No	Brand Name	Generic Name	Specification	Launch Year
	1	Enivac HB	Purified Hepatitis B surface antigen protein (HBsAg)	0.5mcg/0.5ml	2000
	2	Enivac HB Safsy	Purified Hepatitis B surface antigen protein(HBsAg)	20mcg/ml	
	3	Ecovac – 4	Diphtheria Toxoid, Tetanus toxoid, Pertussis, HBs Ag	0.5ml	2005
	4	Easyfour	Diphtheria Toxoid, Tetanus toxoid, Pertussis, H.Influenzae type b oligosaccharrides	0.5ml	2005
	5	Easyfive	Diphtheria Toxoid, Tetanus toxoid, Pertussis, HBs Ag, H.Influenzae type b oligosaccharrides	0.5ml	2005
	6	Monovalent Oral Polio Type 1 Vaccine	Suspension of live attenuated type1 Sabin strain	Not less than 106.0CCID50 of type 1	2006
	7	Monovalent Oral Polio Type 3 Vaccine	Suspension of live attenuated type1,2,3 Sabin strains	Not less than 105.8 CCID50 of type 3	2006
	8	Poliomyelitis Vaccine, Live (Oral) IP (OPV)	Suspension of live attenuated type1,2,3 Sabin strains	Not less than 106.0CCID50 of type 1, 105.0 CCID50 of type 2 and 105.8 CCID50 of type 3	NA
Products in the Pipeline			<ul style="list-style-type: none"> • Thermostable pentavalent vaccine • Recombinant Anthrax vaccine • Recombinant Dengue vaccine • Japanese Encephalitis vaccine 		
Distribution Channel			<ul style="list-style-type: none"> • It has field sales personnel ~1000 who promote the products of its Strategic Business Units (SBUs) to the medical profession 		

Distribution Channel <i>(Continued)</i>	<ul style="list-style-type: none"> • It has established market research department for identification of customer's needs and brand related potentials before the launch of new brand • Commencing fiscal 2008, the company plans for international marketing of novel NDDS based pharmaceutical formulation products to US, UK, Germany, France, Latin American countries and Italy through marketing collaborations
---	---

Manufacturing Information:

International Certifications	<ul style="list-style-type: none"> • The pharmaceutical formulations and vaccine facilities comply with the European Union standards for GMP and Good Laboratory Practices • The Manufacturing facility for pharmaceuticals formulation at Baddi complies with regulatory requirements of US FDA, UK MHRA, MCC (South Africa), WHO standards
-------------------------------------	--

National Certifications	The manufacturing facility is cGMP approved
--------------------------------	---

Manufacturing Capacity	<ul style="list-style-type: none"> • Panacea Biotec has its manufacturing facilities at New Delhi, Lalru in Punjab, and at Baddi in Himachal Pradesh <ul style="list-style-type: none"> ◦ The total production capacity of Baddi facility is one billion doses per annum ◦ The Delhi plant capacity is 3.25 million vials per annum
-------------------------------	---

Business Objectives:

Long Term Goals	<ul style="list-style-type: none"> • Expanding their biotech business profile to other products than vaccines only • Between 2008 and 2010, the company hopes to enter markets in Malaysia, the Philippines, Brazil and South Africa • It expects to launch its Japanese encephalitis and dengue vaccines in the market by 2009 • To develop innovative combination vaccines
------------------------	--

Potential Partnering Objectives	<ul style="list-style-type: none"> • All the alliances that Panacea focus to further strengthen its market presence in the vaccine segment, since companies major focus is vaccine market
--	--

Insight Information on the Company:

Company Strengths	<ul style="list-style-type: none"> • Leading position in domestic prophylactic vaccine market • Good manufacturing facility, to produce variety of vaccines • Bulk production of vaccines to that meet the present demand
--------------------------	--

Challenges Ahead	<ul style="list-style-type: none"> • Less exposure in biotech market (Other than vaccines) • Not a significant marketing network to mark presence in countries like US, EU, The Philippines, Brazil and South Africa • Increasing competition in the domestic market
-------------------------	---