

India's Growth Sectors - Pharmaceuticals & Biotech



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To be sure...

The Indian Pharmaceutical Industry

has practically achieved

Self sufficiency

&

Global recognition

as a

Low cost producer

of

High-quality bulk drugs & formulations

KEY ACHIEVEMENTS

India has the 2nd highest number of qualified doctors in the world. Of every six medical doctors in the US, one is Indian

India's huge population and the prevalence of a wide spectrum of disease conditions offer a wide patient-resource for clinical trials

While clinical trials cost approximately \$300 to 350 million in US, they cost only about \$25 million in India

Investigational New Drug stage costs about \$100 to 150 million in US, but costs only around \$10 to 15 million in India

Indian companies are offering custom synthesis services at 30-50% cost savings compared to global costs

700,000 science and engineering graduates & 1500 PhDs qualify annually.
Over 15,000 scientists

CHANGING FACE OF INDIAN PHARMA

Players thinking local

Players thinking global

Indian pharma companies filed the largest number of Drug Master Files (DMFs) for APIs and 23% of ANDAs with the USFDA during 2003

Export revenues now contribute over half the total revenues for the Indian pharma majors

Top 5 Companies Sales & Export Revenues

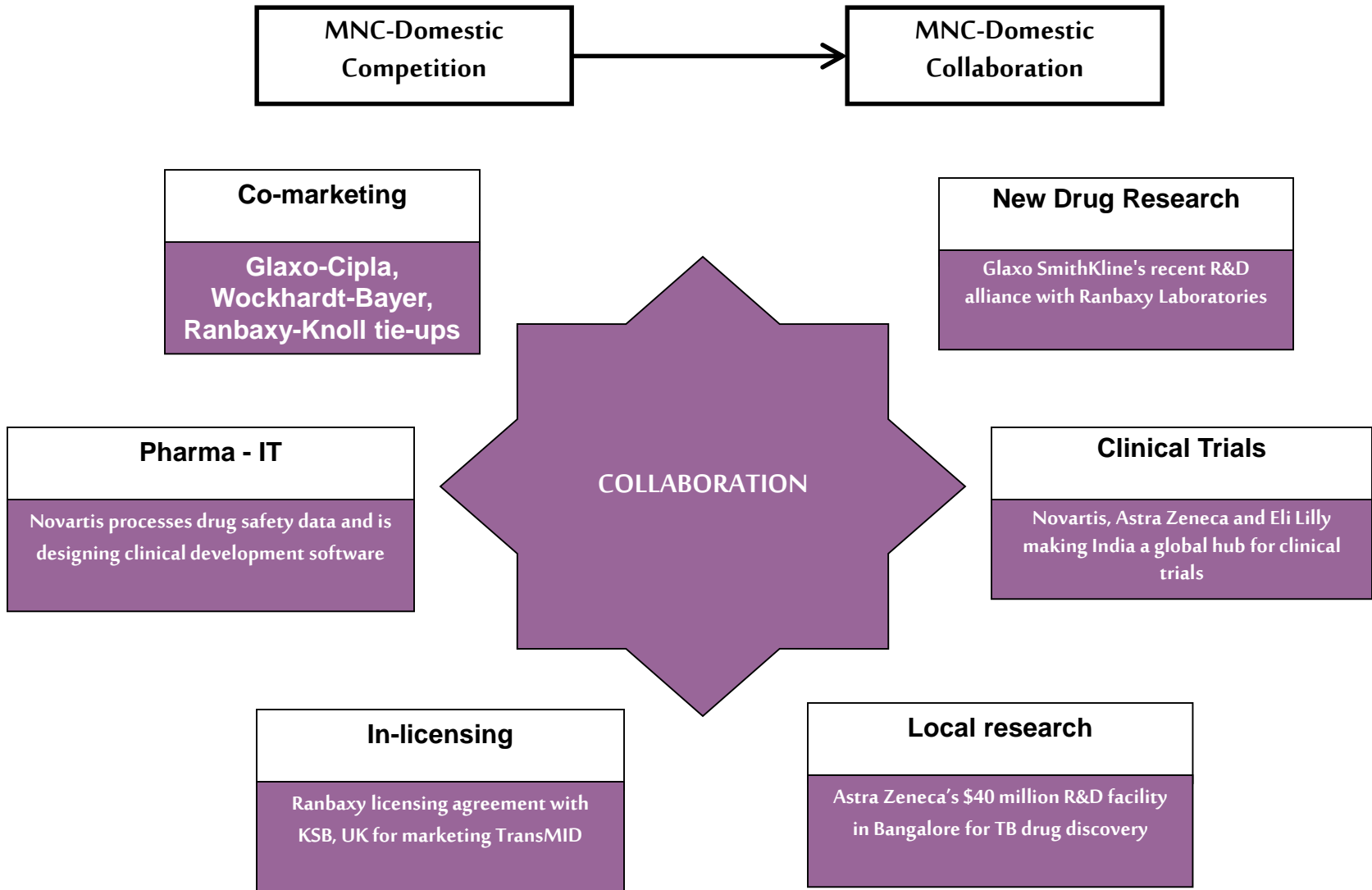
Rank	Company	Sales (\$ mn)	Exports (\$ mn)	Exports %
1	Ranbaxy	969	736	76%
2	Cipla	400	163	41%
3	Dr.Reddy's Lab	336	212	63%
4	Aurobindo Pharma	264	128	48%
5	Lupin	210	92	44%

Source: Company reports

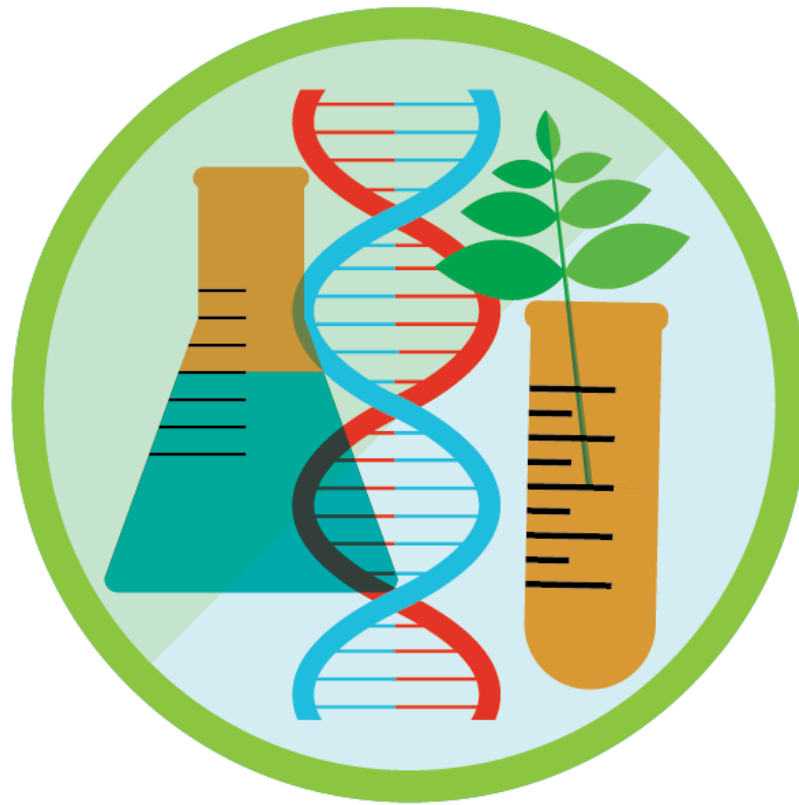
Ranbaxy acquired RPG Aventis, France; Wockhardt acquired CP Pharmaceuticals, UK; Zydus Cadila acquired Alpharma, France

Pharmaceutical exports increased at a CAGR of 23% during FY1995-FY2002

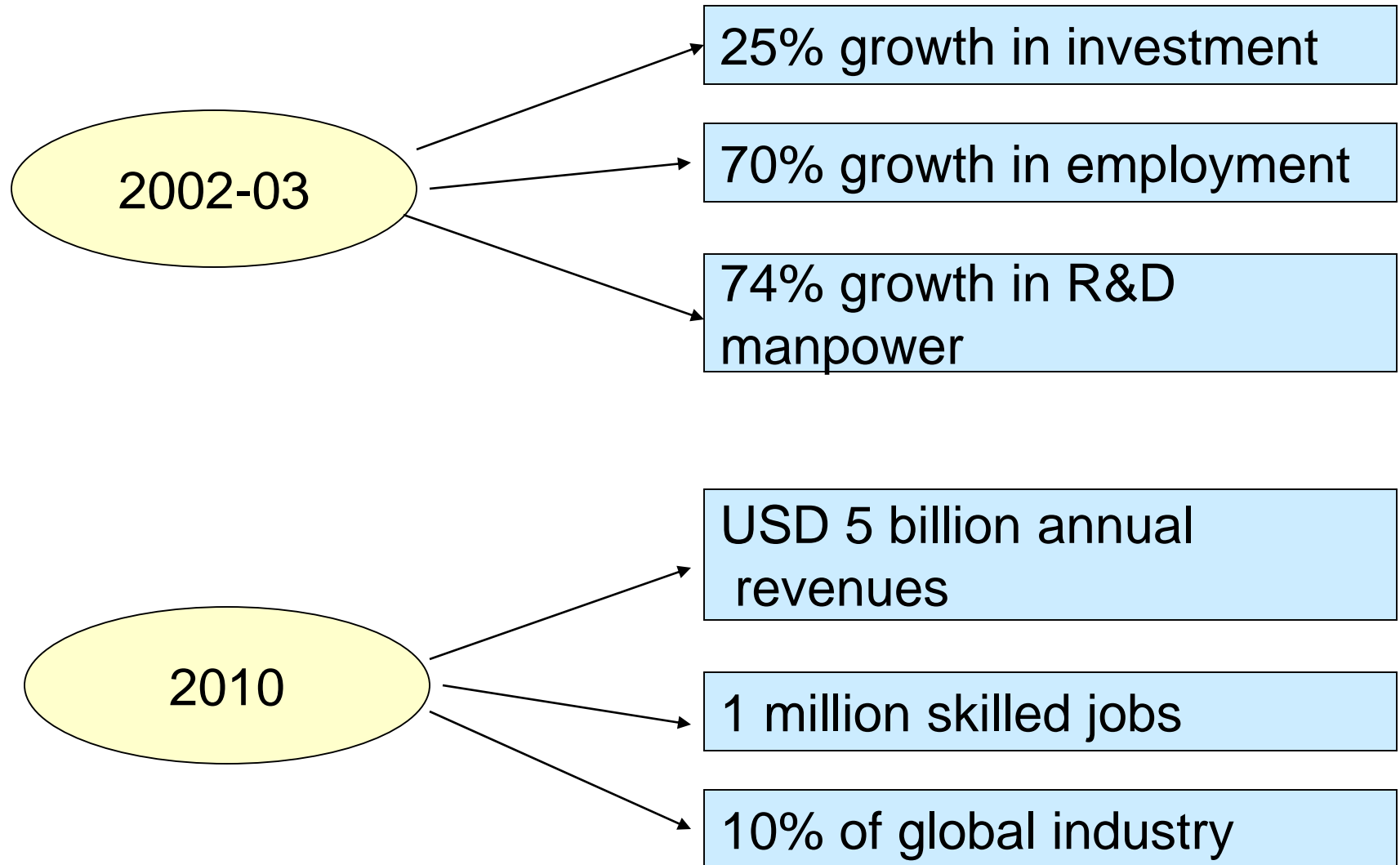
CHANGING FACE OF INDIAN PHARMA



BIOTECHNOLOGY



Market - A Consistent Uptrend



GOING GLOBAL IN BIOTECH

India's first genetically engineered vaccine costs less than half the price of competing vaccines

Shantha Biotech-**SHANVAC-B** meets 40% of the global demand of Hepatitis B vaccine.

Clinton Foundation sourcing HIV treatment from four firms - three of which are from India

Biogenerics - \$25 billion worth of biological products going off patent in 2004. Indian companies strong in biogenerics

India: largest producer of Measles & DTP vaccines. Vaccine exports to over 130 countries

Biocon was the first enzyme company globally to receive ISO certification in 1993

Bio Agri - India (2nd largest producer of food) offers significant opportunities to source products

One out of every two children in the world is immunized by a vaccine made in India

The India Advantage

**Excellent network
of research laboratories**

**Well-developed
base industries**

Rich biodiversity

**Extensive clinical trials
opportunities**

**Trained manpower
and knowledge base**

Thank You

