FOCUS INDIA

THE PHARMACEUTICAL MARKET IN INDIA

Submitted to:

Foreign Affairs and International Trade Canada

Prepared By:
Brogan Consulting Inc.
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1. Introduction

With a rapidly expanding middle-class estimated between 200 and 250 million people, India has the largest consumer market in the world. Significant economic reforms liberalizing trade and investment, growing consumer demand, as well as the use of English for business purposes may attract Canadian businesses to the Indian market.

Despite strong Commonwealth ties, Canada's importance as a trading partner with India has fallen from third place to 30th in the past 20 years. Canadian under-representation in India is especially acute in the area of pharmaceuticals. Trade between the two countries for finished and bulk drugs is negligible, although one Canadian company (Connaught Labs) is known to have met with some success exporting vaccines to India. Overall, Canada accounts for less than 1% of Indian imports in this sector.

There are two factors that suggest Canadian pharmaceutical companies should seriously consider entering into the Indian market. First, due largely to market reforms and decentralization since 1991, India has embarked on a path of rapid economic growth and modernization. Real GDP growth is forecast at 6% to 8% per annum through the year 2000[1]. As the country's wealth increases, demand for better health care and pharmaceuticals will follow.

Second, government policies which have previously hampered foreign investment growth for decades will likely soon change. Specifically, in the pharmaceutical industry, lack of patent protection, restrictive foreign investment rules and burdensome bureaucracy are set for modernization. In the case of patent laws, India is a signatory of both the Trade Related Intellectual Property Rights (TRIPS) and the General Agreement on Tariffs and Trade (GATT). Though new patent law is currently stalled amid domestic opposition and national elections, international pressure is expected to result in its eventual passage. India has until 2005 to fully comply with these international agreements however they are currently in violation of a section requiring them to accept patent applications as of January, 1995. This has prompted threats of trade action by the U.S.

[1] Indian Commerce Ministry forecast.

2. Overview of India

a) Population

India is the second most populous country in the world with approximately 930 million people. Of this number, 250 million belong to the middle class and another 40 million are members of the affluent upper class. Together, they represent a potential market over nine times the size of Canada's entire population. While most of the population remains unable to afford market-priced pharmaceuticals, (some basic drugs are manufactured by subsidized, state-owned companies for the poorer classes) upper and middle class Indians represent a viable market. Despite this, they are often overlooked internationally.

Today, India spends only an estimated 0.5% of its Gross Domestic Product on health care, compared to 9% in Canada. If the economy continues its rapid growth, health care spending can be expected to increase in absolute terms and as a proportion of GDP. Indeed, pharmaceutical spending increased at an average annual pace of 20% from 1992 to 1995 while GDP averaged 4.9% real growth in the same period (inflation averaged 10%). As more and more Indians join the ranks of the middle class and are able to satisfy their immediate needs, health care will be among their first priorities. For more detailed sales information, see the section entitled Pharmaceutical Sales (page 9).

b) Economic Policy

In an effort to attract foreign investment and to stimulate domestic economic growth, India began to liberalize its economic policies in 1991. To encourage foreign firms to invest or increase their investments in India, the policy reforms have reduced government controls on production, trade, and investment. As a result, the Indian economy's real GDP has grown 4.3% in 1991-92 and 1992-93 and by 6.2% in 1994/95. The Indian Commerce Ministry forecasts growth rates of 6% to 8% for the rest of the decade.

Some features of the new policies concerning foreign investment are:

Automatic approval for foreign equity participation up to 51% (from 40%) will be granted in several key areas, including the pharmaceutical sector. These automatic approvals are normally granted within two weeks by the Reserve Bank of India (RBI). Also, although foreign equity of more than 51% is usually approved within 45 days, approval is not automatic.

Indian companies have been permitted to raise funds from international capital markets.

The use of foreign brand names/trade marks for sale of goods in India is permitted.

Corporate taxes have been reduced by 5-10%. Further progressive reductions are planned.

Special investment and tax incentives are given for exports. (See section on taxation for details.)

Free repatriation of profits and capital investments is permitted for most industries, including pharmaceuticals.

The Foreign Investment Promotion Board (FIPB) has been set up to facilitate faster approval of investment proposals. Approval now takes about six weeks.

c) Foreign Exchange Policy

The Indian currency is denominated in Rupees (Rs). Presently, one Rupee is worth 0.0396 Canadian dollars; thus, Cdn $1 equals roughly Rs25.

Common denominations in India include 1 crore which is equivalent to 10 million rupees (Cdn $4 million) and 1 lakh, equal to 100 thousand rupees ($Cdn 40,000). Most business media and company reports use these terms. The Indian Rupee is now convertible on both current and capital accounts.

The Reserve Bank of India (RBI) administers India's foreign exchange controls and regulations under the authority of the Foreign Exchange Regulation Act (FERA).

d) Taxation

The general tax rate for Indian corporations is 40%, plus a surtax on profits over Rs 75,000 (Cdn $3,000). The result is an effective rate of 46%. Foreign companies are taxed at a higher rate of 55%.

Gains realized through some measures are taxed at lower rates for companies both foreign and domestic. These measures include interest on loans and dividends (25%) and royalties and technical fees (30%). Companies may be better off in structuring arrangements to pay higher royalties and technical fees rather than taking gains in the form of profits.

No income tax is charged for profits derived from exports from India.

The Indian government also offers a five-year income tax holiday for any investment set up in "backward areas." For further information on which areas qualify, contact the Indian High Commission in Ottawa or the Indian Trade Consulates in Toronto or Vancouver at the addresses listed on page 22 of this book.

3. Indian Pharmaceutical Industry[2]

a) Industry Profile

Two distinct groups make up the Indian Pharmaceutical Industry:

- large research based companies, of which there are approximately 250 firms (34 are multinationals) and
- over 15,000 smaller generic producing companies.

The larger firms include multinationals, government-owned companies and private domestic firms. They account for approximately 66% of India's total drug production. There are five government owned firms who produce the five drugs considered to be essential, and sell at an affordable price for the Indian public. The drugs are vitamin B1, B2, Folic Acid, Tetracycline and Oxytetracycline. The public companies are:

1) Indian Drugs and Pharmaceuticals Ltd.
2) Hindustan Antibiotics Ltd.
3) Bengal Chemicals and Pharmaceuticals Ltd.
4) Bengal Immunity Ltd.
5) Smith Stanistreet Pharmaceuticals Ltd.

Of these companies only Hindustan Antibiotics is operating without a loss.

The 15,000 small pharmaceutical firms are given special status in India. An important consideration is the exemption of their products from price controls. Price controls are discussed in section 4-c of this paper. Another feature of these firms is that they usually do not have production facilities of their own. The drugs are produced by using the spare capacities of other drug manufacturers.

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[2] This document uses a conversion factor of 1 Rupee (Rs) = 0.0396 Canadian dollars.

30% of current Indian bulk drug production is located in the southern state of Andhra Pradesh which includes the industrial city of Madras. This state also accounts for 35% of total pharmaceutical exports. Of the 500 bulk drugs sold in India, 350 are domestically produced.

Overall, India is capable of producing a wide variety of therapeutic drugs at quality standards comparable to the international industry.

Retail (distributing and wholesalers) sales account for three quarters of the Indian drug market. The remaining one quarter is occupied by hospitals, health centres and clinics. The Medical Stores Organisation (MSO), with offices in Bombay, Calcutta, Guwahat, Hyderbad, Madras, Karnal, and Delhi, is responsible for procurement and supply of drug equipment and other medical supplies for state institutions.

The two main pharmaceutical associations in India are:

- **Organization of Pharmaceutical Producers of India (OPPI)** represents multi-national companies. OPPI are supporters of international protection of intellectual property and are internationally R&D intensive, though much less so in India due to the present lack of patent protection.

- **Indian Drug Manufacturers Association (IDMA)** represents Indian domestic firms and has flourished under current Indian patent laws by producing generic versions of existing drugs. Thus, they stand to lose when patent protection is granted for products. Their R&D tends to focus on new production methods instead of new products.

b) Pharmaceutical Sales

In 1990-91, India accounted for 1.2% of the world pharmaceutical market in terms of sales, the ninth largest market in the world. This percentage is disproportionately low considering India's population of over 920 million people. However, India's pharmaceutical sales have increased by an average of over 20% in nominal terms from Cdn $2.4 billion in 1991-92 to Cdn $3.97 billion in 1994-95, as shown in the table below. Inflation averaged 10% over the same period while real GDP growth averaged 4.9%. This means that during the 1991-1995 period, pharmaceutical sales grew twice as fast as overall GDP.

By the year 2000, the Indian government has forecasted India's demand for pharmaceuticals to reach Cdn $6.7 billion or about twice the amount of current consumption.

Indian Pharmaceutical Sales by Year (Cdn $ Millions)					
	1991-92	1992-93	1993-94	1994-95	2000
Bulk Drugs	378	483	554	638	-----
Formulations	2,016	2,520	2,898	3,332	-----
Total	2,394	3,003	3,452	3,970	6,720*
*estimated by the Indian National Council of Applied Economic Research					

If the forecast figure is achieved, domestic production facilities will have to expand and imports will rise to meet demand. This points to opportunities for foreign investors and importers.

Though the industry is made up of about 16,000 manufacturers, the top 15 account for 39.5% of sales. Market shares for these companies are broken down in the following table.

Sales By Company (1994-95)[3]

Company	Sales (Rs millions)	Market Share (%)	Sales ($Cdn million)
Glaxo-Wellcome	4,410.50	7.2	176.4
Ranbaxy*	2,455.40	4.0	98.2
Cipla*	2,400.90	3.9	96.0
Hoechst Roussel	2,132.80	3.5	85.3
Pfizer	1,685.40	2.7	67.4
Alembic*	1,542.60	2.5	61.7
Knoll	1,523.80	2.5	60.9
Lupin*	1,423.10	2.3	56.9
Torrent*	1,403.20	2.3	56.1
Ambalal Sarabhai*	1,156.20	1.9	46.2
Cadila Health Care*	1,077.10	1.8	43.1
Parke Davis	1,031.10	1.7	41.2
Hind Ciba Giegy	989.80	1.6	39.6
SKB	987.70	1.6	39.5
Total	24,219.60	39.5	968.6
*Domestic Firms			

With respect to sales, of the top 14 firms - 7 are Indian owned. Ranbaxy leads the domestic firms with sales of Cdn $98.2 million. Overall, Ranbaxy places second while Glaxo-Wellcome leads the industry with sales of over Cdn $176.4.

[3]Source: The Economic Times New Delhi; Feb. 26, 1996

c) Exports

Export markets for Indian produced pharmaceuticals include the United Kingdom, United States and areas of the Middle East and Africa. Exports for 1994 totalled Cdn $1,144 million and are expected to be Cdn $1,640 million in 1996.

Exports are encouraged with special subsidies such as zero taxation on profits derived from products shipped.

d) Imports

Imports from Canada accounted for less than 1% of the total of Cdn $627 million in 1994. Major sources of imports included the United States (37%), Germany (25%), France (10%), Italy (10%) and China (8%). Products imported included antibiotics, penicillin, erythromycin, vitamins, vaccines (polio, human and veterinary), preparation insulin, caustic and other hormones and tetracycline.

Of the total imports reported for 1994, Cdn $321 million or 51% were imported in bulk form and formulated in India.

One sign of India's willingness to create an open door policy with foreign firms is evident in the import tariff. The import tariff for bulk medicines and their intermediates has gradually decreased since the inception of the new economic policy in the early 1990s. The lowering of import tariffs is seen as part of the general liberalization of trade policies designed to encourage competition and limit price increases. Imports may also be necessary to keep up with domestic demand which is expected to double by 2000 AD. The table below shows the yearly decline in import tariffs for pharmaceuticals. Some drugs, those deemed to be essential, as well as life-saving medicines, are exempted from tariffs.

India's Import Tariffs (1992-1997)

Year	Import Tariff
1992	130%
1993	85%
1994	65%
1995	40-50%
1996	30-40%
1997 (projected)	25%

Aside from tariffs, some special restrictions also apply. Some products which require fermentation are protected by special import regulations. The reasoning is that because fermentation is capital intensive and therefore expensive for domestic producers, special protection should be granted. For example, importers of penicillin G and rifampicin intermediates are required to buy 85 tonnes of product from domestic producers for every 15 tonnes they import.

e) Research and Development

The drug industry's R&D to sales ratio is 1.5%. This is well below the rate of 12-15% for multi-national companies located in their home countries and the Canadian rate of 11.3% (1994). The 1.5% R&D to sales ratio is low considering that input costs in India are lower than in the developed world. The cost of inventing a new molecule in India is estimated to be only one seventh of the total cost of discovering a new drug in the developed world. India's low labour cost (both skilled and unskilled) is estimated to be one tenth of the cost of that in the western world.

One possible explanation for this lack of R&D is the state of India's patent laws which do not recognize product claims. Only new processes can be patented. Consequently, it seems, Indian companies have been concentrating on developing new processes for existing drugs rather than investing time and research in the development of new innovative drugs.

In hopes of increasing the amount spent on R&D for new drugs by pharmaceutical companies, India has taken steps towards patent harmonization with the rest of the world. The current Indian government intends to abide by the patent agreement as outlined in the TRIPS/GATT documents.

The long term consequences for smaller, generic manufacturers will also be considerable. Unable to copy patented drugs, many domestic firms will look for alternate strategies for survival. These might include searching for foreign strategic partners to provide both capital and R&D experience and ability. There may be a consolidation of the domestic industry through mergers and acquisitions.

In another attempt to spur R&D, the government has said that any drug discovered as a result of R&D based in India will be exempt from price controls

4. Governmental Affairs

a) Patent History

The Indian patent law is in the process of being amended. The current law, dating back to 1970 provides protection for most goods for a period of 14 years from the date of filing. However, food, chemicals and pharmaceutical substances are exempted from this provision. For products in these categories, India only recognizes process patents for a period of 7 years from filing or 5 years from the patent grant date.

The weak protection for pharmaceuticals has contributed to the growth of a large indigenous Indian pharmaceutical industry. Indian companies are given the opportunity to invent processes for new top selling drugs without the risk of patent infringement suits.

This may result in reduced production capacity since patent holding firms may be reluctant to invest in domestic production. It could also account for the fact that new drug introductions in India typically lag the rest of the world by 4-6 years.

b) Present / Future (India's International Obligations (TRIPS / GATT))

The Indian Pharmaceutical Industry is in a state of uncertainty. Recent international developments in the intellectual property arena have prompted the Indian government to introduce amendments the outdated 1970 patent law into the legislature. India, as a signatory to the Trade Related Aspects of Intellectual Property Rights (TRIPS) and General Agreement on Tariffs and Trade (GATT) agreements, must pass legislation which respects the provisions laid out in TRIPS. Among the clauses which will have profound effects on the pharmaceutical industry are the allowance of non-discriminating product patents and the prohibition of compulsory licensing (except under rare and extreme circumstances).

Upon the introduction of product patents, pharmaceutical companies in India will be prohibited from copying patented brand-name drugs for 20 years from the date of filing of the patent. Process patents will also be recognized for the 20 year period. Indian owned companies, especially the small units, would be negatively affected by this change. These are the units which produce and sell generic versions of new drugs.

Brand name companies would benefit the most from the change. Their patented products would enjoy a longer period of market exclusivity before generic versions of the products are allowed into the market. This has prompted fear among consumer groups in India of a drastic increase in the price of pharmaceuticals. The Indian government has estimated that the prices of up to 15% of all drugs will increase due to the TRIPS agreement. Other estimates have placed the percentage up to 50%.

To allay this fear, the Indian government will retain the right to control the price of all drug products through its new regulatory body, the National Pharmaceutical Pricing Authority (NPPA), a division of the Ministry of Chemicals.

TRIPS also provides a 10 year transitional period (beginning January 1995) for developing nations, thus allowing India to continue to prohibit pharmaceutical product patents until 2005. Until that time, however, India must respect only a few minor TRIPS provisions.

Among these is the requirement to accept patent applications by January 1, 1995. Though a bill was presented to parliament in 1994, it expired six weeks later without being passed. Another bill, supposed to introduce product patents died this year when parliament was dissolved for national elections. The government has said it will accept patent applications retroactive to January 1, 1995 once a bill is passed.

Amendments to the patent act had been approved by the lower house (Lok Sabha), and were awaiting approval from the upper house, (Raiya Sabha) where opposition was stiff. The process must now start anew and be re-introduced by the new government. The timing and content of any new legislation will depend on the make-up of the new government.

In the meantime, the delay has exasperated trade frictions with the United States which claims to be losing over $US 400 million a year due to copying of its products. The U.S. recently announced that it would bring its complaint before the World Trade Organisation.

The impact of TRIPs on the Indian pharmaceutical market can be estimated through a comparison with the United States. 44% of pharmaceutical products presently sold in India are covered by product patents in the United States. Breaking these out by class we see that 99% of anti-ulcer drugs, 98% of antibacterial drugs, 51% of cardiovascular drugs, 43% of antibiotic medications and 42% of anti-asthmatic drugs are covered by U.S. patents. Therefore, one would expect in the next 10-15 years upwards of 50% of all pharmaceutical products would be under patent protection in India.

c) National Pharmaceutical Pricing Authority

A National Pharmaceutical Pricing Authority (NPPA) has been established to oversee and regulate the pricing of pharmaceutical drugs in India. Its objective also includes liberalising the climate for collaboration between foreign and Indian companies and the promotion of the rational use of drugs.

The principles and objectives of the Drug Policy which have not changed since the 1977 Drug Policy are outlined below:

1) to develop self-reliance in drug technology;
2) to provide a leadership role to the private sector;
3) to aim at quick self-sufficiency in the output of drugs with a view to reducing imports;
4) to foster and encourage the growth of the Indian sector;
5) to ensure that the drugs are available in abundance in the country to meet the health needs of India;
6) to ensure quality of production;
7) to offer special incentives to firms which are engaged in research and development;
8) to provide other parameters to control and regulate the activity of foreign companies in accordance with national objectives and priorities.

Drug Prices Control Orders (DPCO) is the title given to India's pricing laws. The DPCO comes under the auspices of the NPPA. The drug price controls have been relaxed since the last drug policy of 1986. However, the policy of limiting the profits of pharmaceutical firms to 8-13% of pre-tax sales remains.

To encourage more domestic R&D, the drug policy exempts companies that conduct in-house bulk drug R&D and who develop a new drug delivery system from price controls for a period of 10 years. In addition, new drugs introduced into the country for the first time, either by foreign or domestic firms, are exempted for 5 years.

The new drug policy allows for the elimination of price controls on drugs meeting certain sales specifications. Price controls can be eliminated if:

- sales are under Rs40 million (Cdn $1.6 million) annually
- for drugs with annual turnover greater than Rs10 million (Cdn $0.4 million) no single formulator has a market share greater than 90%
- drugs for which there are at least 5 bulk producers and 10 formulators, none with a market share greater than 40%.

The above points outline a situation in which price controls can be eliminated. According to the Indian Ministry of External Affairs, "In case the prices of these (unrestricted) medicines rise unreasonably, government would take appropriate measures, including reclamping of price control."[4]

Under the new policy, price controls remain on 73 bulk drugs. These include ranitidine, famotidine, salbutamol, ciprofloxacin and captopril.

Controlled prices fall into two categories. Category I drugs, defined as essential under the national health program, face more stringent rules then Category II drugs. Even small firms manufacturing drugs classified in Category I are not price control exempted. All price-controlled drugs that do not fall in Category I are placed into Category II.

The DPCO allows for periodic price revisions to compensate for increases in the cost of production. However, pharmaceutical firms complain that the price revisions constantly lag behind the inflation rate. As a result the increase in price does not necessarily cover the increase in costs incurred.

d) Drug Licensing

Drug firms are licensed to manufacture in India (for export or domestic sale) in one of two ways:

1) by obtaining a drug license from the state health authorities where the manufacturing facilities are located (all small units fall under this category);

2) or, by obtaining an industrial license from the central (federal) government. Firms with capital investments over Rs 7.5 million must procure licenses from the central government.

e) Foreign Investment Promotion Board (FIPB)

Companies wishing to invest in India may apply directly to the Foreign Investment Promotion Board (FIPB). This division of the Prime Minister's Office is headed by the Principal Secretary to the Prime Minister. Members of the Board also include the Finance Secretary, the Commerce Secretary and the Secretary for Industrial Development. Secretaries from other ministries may also be asked for input if the specific investment proposal falls under their jurisdiction. In the case of pharmaceutical investments, the Secretary for the Ministry of Chemicals might have temporary membership on the FIPB.

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[4]Ministry of External Affairs; India Means Business; Opportunities In Specific Sectors.

The FIPB has the power to examine all foreign investment proposals and approve them based on their individual merits. Regulations and procedures which normally govern these proposals may be overridden by the FIPB. In the past, the FIPB has taken a liberal stance toward the approval process.

A submission to the FIPB should be sent directly to the address listed on page 23 of this book. No special application is required.

Proposals should include information pertaining to:

-technology to be used or imported
-the value of the investment
-the foreign exchange balance sheet
-export potential and/or import substitution potential
-employment estimates.

5. Conclusions: Strategies for Canadian Companies

a) Export to India

Despite recent moves to open up the market to imports, domestic producers continue to be sheltered from full competition. At the same time, prices in India are among the world's lowest. Estimates of Indian prices relative to those in the U.S. for example, put average prices at 1/30th of what they are in the U.S. This is due to price controls which continue to regulate about half of all sales, intense domestic competition among the 16,000 domestic producers, low costs of labour, and the lack of patent protection for new products. As a result, it would be very hard for a Canadian manufacturer to undercut existing prices for most products.

This is not to say that Canadian exports to India cannot be competitive. Exporters should look for specialized niche markets characterized by low sales volumes. Vaccines have been mentioned as one area where Canadians have met with success.

Products requiring fermentation such as penicillin are another export possibility. High capital costs keep most indigenous producers out of the market, however local producers continue to enjoy special protection (see section 2-c for details).

Many international companies take advantage of lower Indian labour costs by exporting drug components to India and producing the finished formulations there.

b) Branch Plants

Setting up a branch plant without a local partner can be a perilous pursuit in India. A keen understanding of the local regulations, laws, market and cultural differences is required. Very few international companies enter the market this way. Even the multinationals such as GlaxoWellcome and Ciba-Geigy do not own 100% of their Indian operations. Years of local experience and a loosening of foreign ownership restrictions are leading some multinationals such as Pfizer to consider 100% subsidiaries, however approval by the Foreign Investment Promotion Board (FIPB) is by no means assured. Bristol-Myers was recently refused permission to set up a 100% foreign-owned subsidiary. It was reported in the Indian press that the reasoning behind the refusal was that Bristol-Myers did not spell out plans to invest in manufacturing.

An Indian subsidiary could allow Canadian companies to enter both the Indian market and export from India to other markets, especially the affluent Persian Gulf states with whom India has a strong trade relationship. If the Indian manufacturing facility is located in one of India's Special Export Zones, components may be imported from Canada duty-free, formulated, and then re-exported. A minimum of 20% of the exported product value must be added in India.

In such a scenario no Indian income taxes would be charged on profits from the exports.

c) Joint Ventures

A joint venture with a local firm is a good way to ease in to the Indian market. A local partner is likely to be familiar with the often complex rules and regulations in the industry. They would likely have a better knowledge of profitable market niches and strategies as well.

Many indigenous manufacturers are eager to set up joint ventures with foreign companies to benefit from investment capital and technology. With the coming of product patents, many may wish to invest in R&D.

Finding the right partner is vital. Indian trade consulates or the Indian Investment Centre in Delhi (see Appendix A for address), can put Canadian companies in contact with Indian firms seeking partners. Two potential partnerships are included in Appendix B of this document. Canadian missions in India and the Department of Foreign Affairs and International Trade can also provide advice and assistance in finding a partner.

A face-to-face meeting with a prospective partner is necessary, even in the age of fibre-optics. It is advisable to get to know a potential partner's existing facilities and business practices in person. If they do business in a way that is compatible with Canadian standards and practices, prospects for a reasonably low-friction partnership are good.

A joint partnership could be formed to service the Indian market, Indian export market, or both. Foreign ownership of up to 51% of the venture will be automatically approved by the FIPB; higher levels are approved on a case-by-case basis. Approval in these cases generally depends on a willingness to invest substantial amounts in manufacturing within India.

Appendix A

CONTACTS

Appendix A: Contacts

Canadian Contacts:

Foreign Affairs and International Trade Canada
South Asia Division
125 Sussex Drive
Ottawa, ON
K1A 0G2
Tel: (613) 996-5903
Fax: (613) 996-1248

Canadian High Commission
P.O. Box 5208
Shanti Path, Chanakyapuri
New Delhi, India
Tel: (91-11) 687-6500
Fax: (91-11) 687-5387

Consulate of Canada
41/42 Maker Chambers VI
Jamnalal Bajaj Marg
Nariman Point
Bombay 400 021
Tel: (91-11) 287-5479
Fax: (91-11) 287-5514

Canada India Business Council
1160-55 Metcalfe St
Ottawa, ON
K1P 6N4
Tel: (613) 238-4000
Fax: (613) 238-7643

Export Development Corporation
151 O'Connor St
Ottawa, ON
K1P 5T9
Tel: (613) 598-2500
Fax: (613) 237-2690

Indian Government Agencies:

High Commission for India
10 Springfield Rd
Ottawa, ON
K1M 1C9
Tel: (613) 744-3751
Fax: (613) 744-0913

Reserve Bank of India
P.O. Box 1055
Bombay 400 023
India
Tel: (22) 286-1602 / 286-3596
Fax: (22) 261-9330

Shastri Bhavan
Joint Secretary
Ministry of Chemicals
Dr. Rajendra Prasad Road
New Delhi - 110001
Tel: (11) 385131
Fax: (11) 382467

Mr. K. K. Trivedi
Senior Advisor
Indian Investment Centre
Jeevan Vihar Building
Sansad Marg
New Delhi - 110001
India
Tel: (11) 3733673
Fax: (11) 3732245

Indian Trade Consulate - Toronto
Mr. R. K. Bhatia, Consul General
2 Bloor St West, Suite 500
Toronto, ON
M4W 3E2
Tel: (416) 960-0751
Fax: (416) 960-9812

Indian Trade Consulate - Vancouver
Mr. Jawahar Lal, Consul General
325 Howe St, 2nd Floor
Vancouver, BC
V6C 1Z7
Tel: (604) 662-8811
Fax: (604) 6822471

Dr. P. Das Gupta
Office of the Drug Controller of India
Directorate General of Health Services
Room No. 342 B, A Wing
Nirman Bhawan, Maulana Azad Road
New Delhi 110 001
Tel: (11) 301 8806
Fax: (11) 301 7924

National Information Centre for Drugs and Pharmaceuticals (NICDAP)
Central Drug Research Institute
P. Box No. 173
Lucknow 226 001
Tel: (522) 233 812
Tel: (522) 233 232
Fax: (522) 243 405

Foreign Investment Promotion Board (FIPB)
Prime Minister's Office
South Block, New Delhi
Tel: (11) 3017839
Fax: (11) 3026857

Indian Pharmaceutical & Biotechnology Industry Contacts:

Mr. R.D. Joshi, Secretary-General
Organisation of Pharmaceutical Producers of India (OPPI)
Cook's Building,
324 Dr. D. Naoroji Road
Bombay 400 001
Tel: (22) 204 5509
(22) 204 4518
Fax: (22) 204 4705

Dr. A. Patani, Secretary-General
Indian Drug Manufacturer's Association (IDMA)
102-B Poonam Chambers
Dr. Annie Besant Road, Worli
Bombay 400 018
Tel: (22) 492 6308
(22) 494 4624
Fax: (22) 494 4623

Dr. Jagdish C. Sobti
Hon. General Secretary
Indian Medical Association (IMA)
IMA House, Indraprastha Marg
New Delhi 110 002
Tel: (11) 331 8819
(11) 331 9009
Fax: (11) 331 6270

D. Parikh
President
Indian Pharmaceutical and Allied Manufacturers and Distributors Association
Mackinnon Mackenzie Building
Ballard Estate
Bombay 400 038
Tel: (22) 261 4681-4

Dr. S.R. Bharucha
Chief Economic Advisor and Deputy Secretary General
The Associated Chambers of Commerce and Industry of India
2nd Floor, Allahabad Bank Building
17 Parliament Street
New Delhi 110 001
Tel: (11) 334 3507
(11) 334 4202
Fax: (11) 334 2193
(11) 334 4917

Dr. P. Babu
Managing Director
Bangalore Genei (P) Ltd.
112/2, 8th Main
Near 17th A Cross
Malleswaram
Bangalore 560 055
Tel: 342091

Dr. M. G. Deo
Resident Director
Cancer Research Institute (CRI)
Dr. R. Borges Marg
Parel
Bombay 400 012
Tel: (22) 4123803
Fax: (22) 4121089

Dr. C.R. Bhatia
Director
Bhabha Atomic Research Centre
Bombay 400 085
Fax: (22) 5560750

Dr. M. Udayachander
Prof & Head
Cancer Institute
Department of Biochemistry
Canal Bank Road
Gandhinager, Adyar
Madras 600 020
Tel: (44) 412714
Fax: (44) 4112185

Prof. H. Sharat Chandra, Director
Centre for Cellular & Molecular Biology
Uppal Road
Hyderabad 500 007
Tel: 853283; 852241
Fax: 0842-851195

Prof. P.K. Ray, Director
Industrial Toxicology Research Centre
PB No. 80
Mahatma Gandhi Marg
Lucknow 226 001
Tel: 248227; 241856
Fax: 0522-248227

Dr. Amiya R. Nayak
Scientist Malaria Grp
International Centre for Genetic
Engineering and Biotechnology
Nll Campus
Shaheed Jeet Singh Marg
New Delhi 110 067
Tel: (11) 6865007 / 6867351
Fax: (11) 6862316

Mr. Suresh Chandran
Scientific Communicator
National Institute of Immunology
Shahid Jeet Singh Marg
New Delhi 110 067
Tel: (11) 6863004-9 / 6863011-13
Fax: (11) 6862125

Dr. Kalyan Banerjee, Director
National Institute of Virology
20A, Dr. Ambedkar Road
PB No. 11
Pune - 411 001
Tel: 667301-1 / 667299

Dr.K.Kannan
Director
Span Research Centre
174, New Industrial Estate
Road No. 6 G
Udhna Udyognagar
Udhna
Surat 394 210

Dr. V.R. Kalyanaraman
Chariman & Managing Director
Bharat Immunologicals & Biologicals
Corpn. Ltd.
V-13 Green Park Extension
New Delhi 110 016
Tel: (11) 654753 / 6866722

Dr. Vijay Kumar Datla
Chariman and M.D.
Biological E Limited
18/1 & 3 Azamabad
Hyderabad 500 020
Tel: 867831
Fax: 965309

Dr. R. Jagannathan, General Manager
Biotech Consortium India Ltd
4th Floor, Kundan House
16 Nehru Place
New Delhi 110 016
Tel: (11) 6415314 / 6415385
Fax: (11) 6438926

Dr. Sudhir Gandhi
Ranbaxy Diagnostics
Devika Tower, 11th Floor
6 Nehru Place,
New Delhi -110 019
Tel: (11) 6463011
Fax: (11) 6430633

Mr. S. Giridhar
National Sales Manager
Wipro Biomed
903 Prakash Deep
7 Tolstoy Marg
New Delhi 110 001
Tel: (11) 3325677 / 3711537
Fax: (11) 3324763

Mr. Surojit Sen,
Chief Executive
Nicco Biotek Ltd
Nicco House
2 Hare Street
Calcutta 700 001
Tel: (33) 2485102
Fax: (33) 2209443

Dr. Dinesh Gupta
Manager-Biotechnology
Modi Biotek (a division of Win-Medicare Ltd)
1400, Hemkunt Towers
98 Nehru Place, New Delhi 110 019
Tel: (11) 6473019/ 6434170
Fax: (11) 6446876

Mr. Nabarun Chowdhury
Infar (India) Ltd
38 Chowringhee Road
Himalaya House, 4th Floor
Calcutta 700 071
Tel: (33) 297773/297776
Fax: (33) 293579

Mr. Lalit Mahajan
J. Mitra & Bros Pvt Ltd
A-180 Okhla Industrial Area Phase I
New Delhi 110 020
Tel: (11) 6818971 / 6818973
Fax: (11) 7516739

Mr. A. Singh
Toshniwai Bros (Delhi) Pvt Ltd
3E/8 Jhandewalan Extension
New Delhi 110 055
Tel: (11) 523366/523597
Fax: (11) 7516739

Mr. V. K. Bhatia
Chief Executive
OSB Agencies
14/147 Main Road
Geeta Colony, Delhi 110 031
Tel: (11) 2249973
Fax: (11) 2216736

Mr. Pradeep K. Singhal
Chief Executive
Mass Diagnostics
5 Community Centre
Naraina, Phase 1
New Delhi 110 028
Tel: (11) 593689
Fax: (11) 5454045

Mr. D. C. Upadhyay
Chief Executive
Shiva Scientific Company
CB-84 Ring Road
Naraina, New Delhi 110 028
Tel: (11) 605232/604751
Fax: (11) 674344

Mr. S. S. Rana
D.P. Medical Diagnostics (P) Ltd.
IBC, M 38/1 Middle Circle
Connaught Place, New Delhi 110 001
Tel: (11) 3329000
Fax: (11) 3325045

Mr. K. M. Jariwala
Managing Director
Indian Vaccines Corporation Ltd
No. 2, Ring Road, Kilokri
Opp. Maharani Bagh
New Delhi 110 014
Tel: (11) 630255/630499
Fax: (11) 6840513

Mr. Arun Prakash
Director
Genetix
C-88 Kirti Nagar
New Delhi 110 015
Tel: (11) 521714/5467637
Fax: (11) 5467637

Mr. V. J. Nambiar
Managing Director
Raibman Bio-Tek (Pvt) Ltd
C-1 Mogappair Industrial Estate
Madras 600 050
Tel: (44) 653104
Fax: (44) 6212796

Distributers/Distributors of Medical Supplies

Imperial Surgical Co, Pvt Ltd
4 Malhotra House
Walchand Hirachand Marg
Bombay 400 001
Tel: (22) 261-6511
Fax: (22) 261-1004

Jyoti Surgical Company
200 Princess Street
P.O. Box 2698
Bombay 400 002
Tel: (22) 208-8889
Fax: (22) 206-0208

Medical Co-oridnators Pvt Ltd
304, Hill View Indl. Estate
Ghatkoper West
Bombay 400 086
Tel: (22) 517-0552
Fax: (22) 517-0560

Galtron Electromedical Pvt Ltd
G/1 Nahar Seth Industrial Estate
Chakala, Andheri East
Bombay 400 099
Tel: (22) 834-5018

Leading Drug Wholesalers in India

ACE Laboratories Limited
C-52 Okhla Industrial Area Phase I
New Delhi 110 020
Tel: (11)681-9192/682-1242/684-6178
Fax: (11)684-1084
Contact: Mr. Shailendra Tewari, Director

Cooper Pharma
27/8 Shakti Nagar
New Delhi 110 007
Tel: (11)711-1309/712-8518
Fax: (11)722-4333
Contact: Mr. Rakesh Bhargava

Dee-Pharma Limited
B-142 Okhla Phase I
New Delhi 110 020
Tel: (11)681-2738/681-9390/681-6471
Fax: (11)681-2740
Contact: Mr. V.K. Jain, Director

Martin & Harris Ltd.
Pragati Bhavan
Jai Singh Road
New Delhi 110 001
Tel: (11)343782/343786/343765
Fax: 031-62425 APJ IN
Contact: Mrs. Sushma Berlia, President

Max India Limited
Devika Tower (12th Floor)
6 Nehru Place
New Delhi 110 019
Tel: (11)644-5513
Fax: (11)644-9138/644-7826
Contact: Bhai Analjit Singh, Director

Nath Bros Exim International Ltd.
102 Bangla Sahib Marg
New Delhi 110 001
Tel: (11)373-5265/343-901/343645
Fax: (11)373-2676
Contact: Mr. Sri Nath, Director

Paam Pharmaceuticals (Delhi) Ltd.
26 Bhargava Lane
Nitya Nand Marg
Civil Lines
Delhi 110 054
Tel: (11)252-1874/292-9153
Fax: (11)252-6204/292-9156
Contact: Mr. Anil Bhargava, Director

Radicura Pharmaceuticals Pvt. Ltd.
B-117 Okhla Industrial Area, Phase I
New Delhi 110 020
Tel: (11)681-4056/681-6352
Fax: (11)681-6782
Contact: Mr. Vinod Kumar Jain, Director

TTK Pharma Ltd.
91, Santhome High Road
Madras 600 028
Tel: 493-7458/493-8057
Fax: (91)044-493-8033
Contact: Mr. M.V.Kumar, Director

Trade Publications

Chemical Industry Digest

Upcoming Trade Shows

India International Trade Fair '96
November 14-27, 1996
Contact:
India Trade Promotion Organization
Pragati Bhawan, Pragati Maidan
New Delhi 110 001

Appendix B

JOINT VENTURE POSSIBILITIES

Radicura Pharmaceuticals Pvt. Ltd.

Mr. Vinod Kumar Jain
B-117, Okhla Industrial Area, Phase I
New Delhi 110 020

Tel: 6811056
Fax: 6816782

EXISTING COMPANY PROFILE

Manufacturers of Pharmaceutical formulations.

	Amount in (US$)
Registered Capital	8,75,000
Total Assets	74,991
Sales Turnover	28,68,369
Sales Market	---
Date of Establishment	1979
Number of Employees	120

PROFILE OF PROPOSED PROJECT

Project/Product Description	Antibiotics, Cycloserine and Ethionamide	
Project Cost		0.5 million
Investment in P & M	**Indigenous**	**Imported**
Existing	1,03,969	---
Proposed	2,50,000	2,50,000
Annual Capacity (Est.)		1 to 2 tons each
Type of Foreign Participation Sought	Joint Venture/Technology Transfer	
Other Relevant Details	50% buy back arrangements would be preferred.	

PAAM Pharmaceuticals (Delhi) Ltd.

Miss Hemanshu Nagpal, Public Relations Officer
13, Alipur Road
The Exchange Stores Building, Civil Lines
Delhi 110 054

Tel: 091 11 293 7855/56/57/58
Fax: 091 11 293 7857

EXISTING COMPANY PROFILE

Manufacture of Pharmaceutical formulations and bulk drugs.

	Amount in (US$)
Registered Capital	14.7 million (approx.)
Total Assets	14.7 million (approx.)
Sales Turnover	41.17 million (approx.)
Sales Market	UK, USA, Afghanistan, East Africa, Belgium, Bhutan Burma, CIS, Germany, Japan, Yemen & UAE
Date of Establishment	1986
Number of Employees	600

PROFILE OF PROPOSED PROJECT

Project/Product Description: All kinds of formulations.

Project Cost: 19.11 million (approx.)

Investment in P & M	Indigenous	Imported
Existing	11.76 million (approx.)	nil
Proposed	4.41 million (approx.)	5.82 million (approx.)

Annual Capacity (Est.): ---

Type of Foreign Participation Sought: Term Loan/Equity