
A \$4-million joint program involving **Apotex** and the **MRC** will be used to support scientists conducting basic research aimed at the discovery of new therapeutic agents.

The vast majority of R&D conducted by member companies of the CDMA is carried out in Canada. This includes synthetic chemistry, analytical chemistry, pharmaceutical formulation development, clinical testing, and both bioavailability and clinical efficiency, where relevant. The member companies have targeted more than \$750 million for R&D expenditures over the next 10 years.

The generic companies have a great deal of collective expertise in manufacturing, formulation, packaging and marketing of drug products and fine chemical manufacturing. It is these skills that are available for ventures into new technologies. The CDMA member companies have already entered into a number of strategic alliances with multinational companies, and this has given them significant global reach.

The generic industry in Canada is a success story, and, collectively, this sector has a great deal to offer foreign pharmaceutical companies: technology transfer arrangements; product licensing and distribution arrangements to secure product registrations; and joint venturing opportunities.

Biopharmaceutical Companies

The biotechnology industry is of major and strategic importance to Canada. For this reason, the Government of Canada implemented its National Biotechnology Strategy in 1983 to support and encourage the growth of an internationally competitive industry. The industry, in just over 15 years, has grown from a handful to well over 200 firms.

The Canadian biotechnology industry is concentrated in centres with a strong university and hospital research base. The biotechnology/university relationship is expected to strengthen, as university technology assessment and transfer agents take a more active role in negotiating alliances between their institutions, and pharmaceutical and biotechnology companies.

Biopharmaceutical companies stress R&D. Five Canadian companies rank among the top 20 in terms of ratios of R&D investment to revenues: **Allelix Biopharmaceuticals**, **BioChem Pharma**, **Biomira**, **Hemosol** and **QLT Phototherapeutics**.

Biotechnology firms active in the health-care sector tend to dominate the industry, and now account for over 50 per cent of all firms in biotechnology in Canada. This industry sector dominance, according to Ernst & Young, is not likely to lessen in the near future. The top public biotechnology companies are biopharmaceutical and clinical diagnostics firms:

- ❑ **Allelix Biopharmaceuticals Inc.**, Mississauga, Ontario
Product focus: therapeutics and biopharmaceuticals for the treatment of AIDS, osteoporosis, inflammatory diseases and disorders of the central nervous system.
- ❑ **BioChem Pharma Inc.**, Laval, Quebec
Product focus: portfolio of therapeutics targeting viral diseases, cancer, AIDS, pain control and cardiovascular diseases.