

Science and Technology in France

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1. France: S&T Opportunities for Canada

LIFE SCIENCES

Since 1997, public R&D spending in France, the portion of the French civilian R&D Budget (BCRD) devoted to life sciences, has increased significantly: nearly 25% of the BCRD is directed toward life sciences. Genomics, post-genomics and bio-informatics have been allocated the lion's share of the life sciences research effort in France since 1999.

Since the beginning of 2002, new initiatives devoted to life sciences have been announced:

- On January 22, the National Assembly adopted the amended bioethics bill, which authorizes research on stem cells obtained from human embryos conceived *in vitro* as part of medically assisted conceptions which are no longer the subject of a parental project. *French researchers will thus be able to conduct research on human stem cells from surplus embryos, opening the way to cell therapies and regenerative medicine.*
- A Longevity Institute, whose objective will be to permit longer life in better health, will be established (February 2002). This Groupement d'intérêt scientifique (GIS) [scientific interest group] will develop and co-ordinate research on ageing and age-related diseases. Its first research projects will focus on three priority axes:
 - *genomic and post-genomic studies;*
 - *breeding of animals that are useful for the study of ageing;*
 - *study of age-related sensory disabilities (muscular degeneration; loss of auditory acuity; loss of balance, orientation and ambulation).*
- A Rare Diseases institute will be created in the 1st quarter of 2002. This institute, which will also be a GIS, will be established to *stimulate, develop and co-ordinate research on these diseases*. The French Minister of Research has decided to develop public research in the area of rare diseases, 80% of which are genetic and for which genomics offers hope for treatment or cures. This institute will bring together the ministries involved (Research, Health), public research bodies (INSERM and CNRS) and patient organizations (AFM and the Alliance pour les maladies rares). It will be headed by Prof. Alain Fischer, who carried out the world's first and only successful gene therapy, on immunodeficient children.

ENVIRONMENT, ENERGY AND SUSTAINABLE DEVELOPMENT

The funds allocated to research on the environment, environmental safety and sustainable development have also increased substantially. Allocations to the Institut de radioprotection et de sûreté nucléaire (IRSN) [institute for radiological protection and nuclear safety] will increase in order to strengthen research on nuclear risks and technical expertise provided to public authorities. The research appropriations of the ministry of the environment will rise by approximately 17%, in order to increase the research funds dedicated to *air pollution prevention*,