

Networking Excellence in Swiss Life Science Education and Research



Location: Switzerland

Location +



Behind the Swiss biotechnology 'boom' is the excellence in education and public research, combined with efficient technology transfer

Scientists from the core biotechnology and engineering disciplines in Switzerland collaborate closely to keep research innovative. Trans-disciplinary approaches to innovation are also encouraged in the national research programs in life sciences, nanotechnology and material sciences.

In 1999, 71% of the total number of genetic engineering projects were from public research institutions



More than 300 research groups at Swiss public institutions are active in the field of biotechnology. Many groups are involved in international research programs.¹

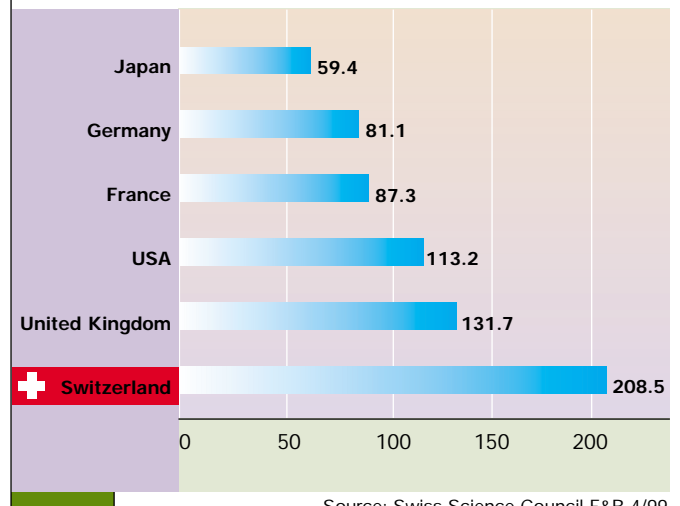
Local support is available for the creation of spin-off companies, as well as an efficient patenting and licensing strategy for academic innovations.

¹ More details can be found in the 'Biotechnology Research Compendium Switzerland', published by Unitectra, Basel, Switzerland, E-mail info@unitectra.ch

Top Educational and Research

institutions sustain the growth of the country's science-based technology and industry. In addition to its universities and schools, Switzerland also has a unique professional training system that is unrivalled in many other places. This training guarantees a highly qualified workforce for all levels of employment.

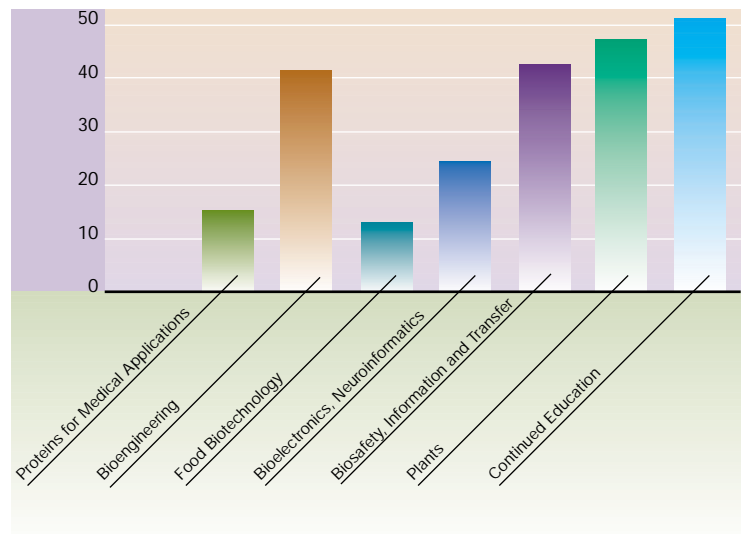
With a yearly overall expenditure of 9.2 Bio CHF (4.7 Bio USD) in 1998, Switzerland has one of the world's highest levels of research expenditure relative to Gross Domestic Income (2.5%). Over two-thirds of Swiss research is financed by the private sector. Switzerland is a leading research nation in terms of output: it produces more scientific publications per capita than any other country in the world.



Source: Swiss Science Council F&B 4/99

Switzerland leads the OECD countries in the number of publications per year. More than 200 publications are submitted each year for every 100'000 inhabitants of Switzerland. According to the relative citation index for worldwide scientific publications, Switzerland is ranked first for the number of publications in several core biotechnology disciplines such as immunology, molecular biology and pharmacology.

Number of Projects Funded by the Swiss Priority Program Biotechnology Between 1992 and 2001

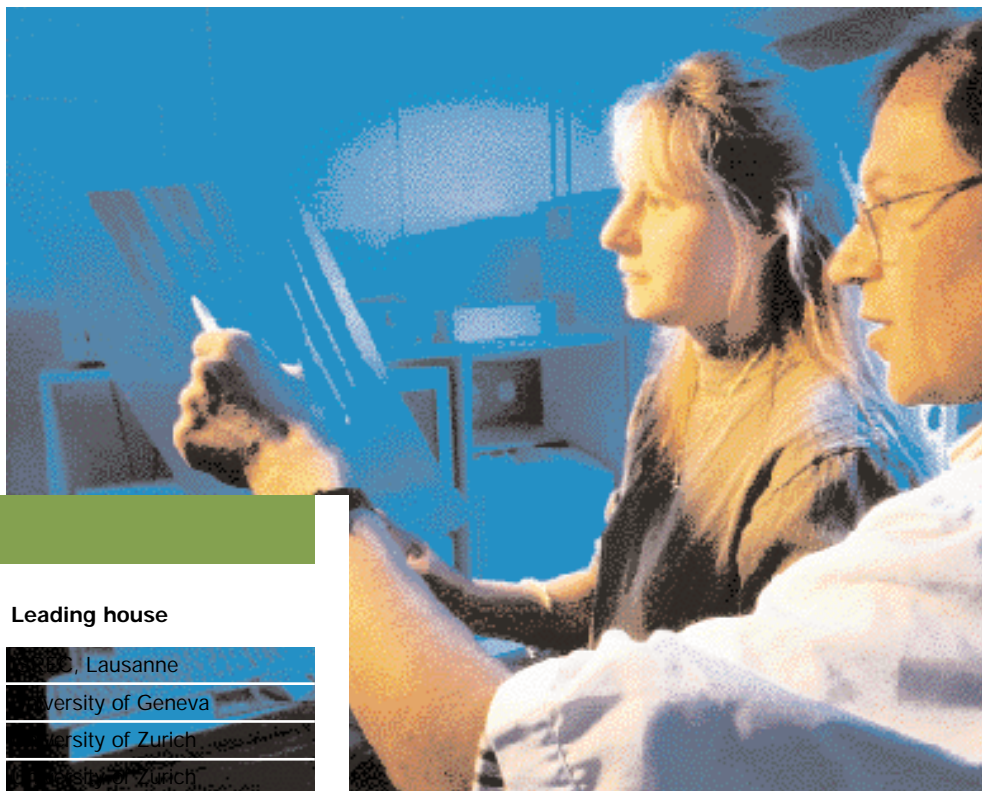


Private and Public Initiatives to stimulate networking in biotechnology were launched in 1992 with the 'Swiss Priority Program Biotechnology' (SPP). The program, for which 100,6 Mio CHF (57.8 Mio USD) were allocated, has given special attention to technology transfer and has led to the widespread exchange of knowledge and technology between universities and industry. To date,

- More than 100 companies, both Swiss and foreign have become involved
- 251 collaborations between public and private research groups have been established
- 15 start-up companies have been created by SPP participants

A new program will fund National Centers of Competence in Research in Life Sciences

A new funding program for National Centers of Competence in Research will provide 75.6 Mio CHF (43.5 Mio USD) specifically for research in the life sciences, from a total budget of 126 Mio CHF (72.5 Mio USD) during 2001-2003. There is a clear political interest in this area, since six out of the ten research projects selected to date are in the life sciences.



New National Centers of Competence in Research in Life Sciences

Projects

- Molecular oncology
- Frontiers in genetics- genes & development
- 3-D structure and interaction of molecules
- Neural plasticity and repair
- Plant survival in natural and agrosystems
- Computer/image guided medical interventions

Leading house

- University of Lausanne
- University of Geneva
- University of Zurich
- University of Zurich
- University of Neuchâtel
- Fed. Inst. of Technology Zurich

Source: <http://www.admin.ch/bbw/pressemitteilungen/nccr-f.html>

Switzerland is in a strong position to play a major role in life sciences now and in the future. The excellent quality of research at Swiss universities combined with effective guidelines and processes for technology transfer make our universities attractive partners for the private sector. The younger generation is definitely sparked by an entrepreneurial spirit, as shown by the considerable number of attractive new ventures created in the past few years.



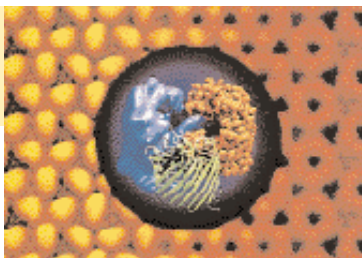
*Dr. Herbert Reutimann,
Director of Unictetra, the technology transfer unit
of the Universities of Bern and Zürich
and the Swiss Priority Program Biotechnology*

Private and public initiatives contribute to the dynamism

In 1997, MedTech was launched by the Swiss Commission for Technology and Innovation (CTI). MedTech is an initiative aimed at supporting entrepreneurs in medical technology. Funding will be available until 2003 with a budget of 30 Mio CHF (17.3 Mio USD).

The national business plan competition organized in 2000 by McKinsey & Company and the Swiss Federal Institute of Technology in Zurich attracted considerable interest. From the 75 competing business plans, 23% were in biotechnology and life sciences.

Science parks/'Incubators' exist now in many Swiss cities, some of which are fully dedicated to life sciences. They offer a stimulating environment for young, innovative start-ups. Their association (the Club of Swiss Technology Parks) contributes to synergies and better international representation.



Further Information

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