

# Swiss Biotech Report

Talents for success

## Update 2009



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# Editorial

## Talents for success

**Despite the current financial and economic crisis, the Swiss biotechnology sector is booming. Companies have already announced plans to create hundreds of jobs this year. Being a knowledge-based industry that uses the very latest technology, the biotech sector needs highly qualified staff who are determined to give of their best. Happily, this year's update of the Swiss Biotech Report shows that Switzerland remains as attractive as ever to 'human talent' working in this highly competitive global sector.**

First and foremost, Swiss-based biotech companies can draw on an extensive pool of home-grown talent. For decades now, the Swiss education system has enjoyed a reputation for outstanding quality. Moreover, a wide range of public- and private-sector initiatives are creating solid prospects for recruiting highly skilled Swiss employees. For some time now, concerted efforts have been made to root out talented young individuals at Swiss schools and universities and thus secure the supply of qualified young Swiss biotechnologists.

At the same time, however, the sector's growth makes it essential to attract staff from abroad as well. The Agreement on the Free Movement of Persons has greatly facilitated

**The Agreement on the Free Movement of Persons has greatly facilitated the recruitment of staff from all over the world.**

the recruitment of staff from all over the world. After all, Switzerland's very high standard of living makes it extremely popular among foreigners who are willing to come and work here, with 24% of the resident population originating from abroad (OECD Factbook 2008: Economic, Environmental and Social Statistics).

International companies find that the Swiss labour market offers them attractive conditions for transacting business. For instance, Switzerland's liberal labour laws leave them plenty of scope to shape their own conditions of employment.

**The tax situation in Switzerland enables companies to guarantee their employees high disposable incomes.**

Another attractive feature is the tax situation in Switzerland, which enables companies to guarantee their employees high disposable incomes. This, too, gives Switzerland a competitive edge in the race to attract top talent.

The Facts and Figures section at the end of the report indicates that the biotech sector is still growing. Swiss biotech companies have not been altogether spared the effects of the economic crisis or turbulence on financial markets and, compared with the record year of 2007, it is now harder for them to procure risk capital or secure loans. Nonetheless, in stark contrast to the tight financing situation, demand is steadily rising, being barely hit by the recession. Indeed, the biotech pharmaceutical sector, one of the industry's strongest segments, is least dependent on economic ups and downs, for purchases of medicinal drugs, unlike consumer goods or vehicles, cannot be put off until later, not even if the economic situation looks bleak.

# Human talents

## Private and public initiatives are guaranteeing an adequate talent pool

**The competition to attract talented individuals may be fierce, but Switzerland offers optimal conditions for meeting this thriving sector's manpower needs. Numerous initiatives launched by the government and industry are continuing to improve both the training provided to would-be biotechnologists here in Switzerland and the hiring of highly qualified employees from abroad.**

The Swiss education system is one of the best in the world, and many scientific research establishments in Switzerland top the international rankings (World Economic Forum, 2008). Furthermore, Swiss technical colleges or universities of applied science are very practice-oriented and actively engage in exchanging with businesses. And as if that weren't enough, the latest innovation index ranks Switzerland as the highest-performing 'innovation leader' in Europe (European innovation scoreboard, 2009).



Claudio Lupi  
Principal  
Heads! Executive Consultancy

'Foreign companies see the quality of Swiss training and education as giving Switzerland an edge when it comes to deciding where to set up their business. The focus on practical applications prevents any ivory tower thinking and eases the way from innovation to business.'

### **Various initiatives are firing youngsters' enthusiasm for science**

The Swiss government is making efforts at every level of the education system to ensure that the biotech sector can meet its manpower requirements to the fullest possible extent by hiring Swiss recruits. The wide-ranging federal Biotech Action Plan is very forward-looking, entailing the expansion of

training and study programmes, the careful dovetailing of academic training and industrial practice, and international exchange programmes. All this is helping to make sure that Switzerland retains its leading position in the biotech sector.



Jean Paul Clozel  
Chief Executive Officer  
Actelion Pharmaceuticals Ltd.

'Setting up and promoting specific courses of study in higher education marks a step in the right direction. At the same time, the sector can do its bit by creating more traineeships.'

In autumn 2009, a special Master's Degree in Life Sciences will be on offer from various Swiss higher education institutions for the first time, marking yet another active measure taken by the federal government to promote Switzerland's status as a biotech centre and create excellent prospects for highly qualified young scientists.



Toralf Haag  
Chief Financial Officer  
Lonza Group Ltd.

'Switzerland can only maintain its strong position in the biotech sector if we succeed in encouraging more young people to study the sciences at universities and technical colleges.'

Together with the industry, the Swiss government is intent on opening youngsters' eyes at an early stage to just how exciting science can be. Initiatives like the Swiss youth research project 'Schweizer Jugend forscht' ([www.sjf.ch](http://www.sjf.ch)) teach youngsters the joys of conducting

experiments. Interactive Web platforms like [www.simplyscience.ch](http://www.simplyscience.ch) help to break down any perceived barriers to scientific subjects and also offer teachers specific didactic training.

### **The biotech sector is attracting young talent**

Companies, too, have set up a range of job exchanges to cover their own short- to medium-term manpower needs. The European job portal [www.eurobiojobs.org](http://www.eurobiojobs.org) was specifically designed for the bio- and life science industry, service and academic sectors.

In the course of last year, the Swiss Biotech Association (SBA) has further defined the interfaces of job seekers and job requirements as well as definition of job profiles. A national conference between academic institutions and company specialists discussed the unmet needs in the field of White Biotechnology.



Hans Peter Hasler  
Chief Operating Officer  
Biogen Idec

'Switzerland's multilingual population, high proportion of highly skilled foreign workers and extremely high productivity are all plus points that prompt international companies to set up their business here.'

In 2009 the SBA will hold its first Jobs@Swiss-Biotech event. The event goal is an informal get-together of 'demand and offer'. After all, unlike other industries in these tough times, many biotech companies are constantly looking for the right talents.

# Human talents

## Switzerland is attractive for employees and companies alike

**Compared with many other countries, Switzerland offers companies and their employees a raft of advantages, one being the high standard of living promised here, which is continuing to attract skilled individuals from abroad, to come here to live and work.**

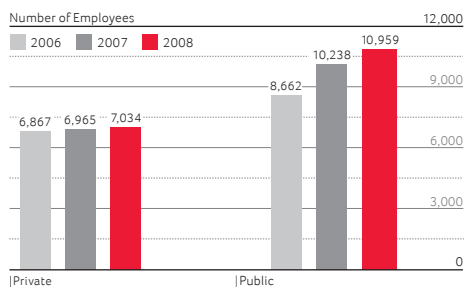
International companies love coming to Switzerland because it offers them such an alluring business environment. The country's liberal labour laws leave companies extensive leeway to shape their own conditions of employment. And where labour market deregulation is concerned, Switzerland ranks fourth in the world (WEF, The Global Competitiveness Report 2007–2008).

Another key factor is that companies based in Switzerland can guarantee their employees high disposable incomes. This is a priceless advantage in the race to attract top talent.

The BAK Taxation Index 2007 ranked Switzerland as one of the world's most attractive countries for highly qualified employees in fiscal terms (CEER and BAK Basel Economics, 2008).

### Number of Employees

The biotech sector is booming in Switzerland. Between 2006 and 2008, the number of people it employed rose by 15.9% from 15,525 to 17,993.



Source: Ernst & Young  
All figures are headquarter-counted



Jack Barbut  
Chief Executive Officer  
NovImmune

‘Perspectives for biotech and medtech in Switzerland are very good because it hosts an important number of multi-nationals headquarters and in particular Research & Diagnostics centres. Activities in the area of biopharmaceuticals require expertise and capital both of which are well represented on the territory.’

### Prospects of better regulation

**It is generally agreed that bioscience needs regulation. And while Switzerland has a worldwide reputation for its pragmatic approach to regulatory issues, there is still plenty of room for improvement in this domain.**

One current study conducted an international comparison on the regulatory environment for key sectors of industry, including pharmaceuticals, focussing primarily on the question of the extent to which the regulatory environment either positively or negatively impacts on potential incentives to conduct research (Internationales Regulierungsumfeld von Schlüsselbranchen, Metrobasel final report, Polynomics AG, 2009). This comparison showed that globally speaking, Switzerland ranks somewhere in the middle, though it was the top-performing European country.

#### Speed up the approval process

Not just in Switzerland, but also in other European countries and in the USA it is absolutely essential to speed up the procedure for approving the licences of medicinal drugs. The Swiss drug licensing authority, Swissmedic,

has already set up a task force to drive the approval procedure forward. The aim is to ensure that by the end of 2010 drug registration takes just three months, rather than the current eight. To this end, external experts have been brought in specially and a top medical scientist has been assigned to chair the task force. This measure alone is a key step in the right direction. Swissmedic is sending out a clear signal to companies, associations and policymakers to find a definitive solution to the present unsatisfactory situation of delayed approval procedures.

### Financing options in difficult times

**More than forty venture capital firms and biotech-specific investment funds are active at all stages of financing in Switzerland. Though a successful Initial Public Offering is nearly impossible for biotech companies in the current climate, mature companies are actively preparing their IPOs in order to be ready when the IPO window will open again.**

Some large venture capital rounds in the last 6 months of note were the financing of AC Immune (CHF 40 million), Synosia Thera-

peutics (CHF 32 million), GlycoVaxyn (CHF 25 million) and Nitec Pharma (CHF 24 million). Both foreign venture capital firms and Swiss investment houses were involved in the deals, thereby demonstrating the continuing appeal of Swiss biotech to the investment community.

In the current climate, a successful IPO is nearly impossible for biotech companies. In summary, it can be said that the trade sale exit route has gained relevance over the past year, and will continue to do so in the months to come. Nonetheless, some mature companies are actively preparing their IPOs, as going public continues to represent a key source of financing in order to ensure their independent further development. In Europe, SIX Swiss Exchange has grown to become the most important marketplace for listed life sciences companies. 42% of Europe's entire market capitalisation in the life sciences sector is attributable to SIX Swiss Exchange. The many successful domestic and crossborder IPOs combined with the long-standing interaction between the life sciences and financial industries have created an atmosphere in which private and public investors are very open to the funding of such companies.

# Facts and figures

## The biotech sector is still growing

**The year 2008 was very intense for the life sciences industry globally with some significant impacts on the Swiss biotechnology sector. As Big Pharma is facing several challenges, the biotech industry is in constant search for new capital in order to finance product and company development. This provides a unique platform for various opportunities.**

Currently Big Pharma is facing the following challenges:

- Patents (wave of expirations and threats of follow-on biologics)
- Pricing pressure (cost containment placing pressure on prices and market access)
- Low R&D productivity
- Cost structure (inefficiencies in the value-chain)
- Compliance commitments (increased complexity and enforcement actions)
- Customer relationships (increasingly informed and active stakeholders)

### Several new products got approved

Several new Swiss biotechnology products got approved in different places around the globe: Santhera's Catena in Canada, Basilea's Toctino in various EU countries as well as Basilea's Ceftobiprole in Canada and Switzerland, and Nitec's Lodotra in 15 EU countries. On the other hand, some drug candidates got setbacks through delays (Santhera's Catena in Europe and Basilea's Ceftobiprole in the US), in the approval process or even through negative decisions made by the respective authorities (Arpida's Iclaprim in the US). This bath of positive and negative news can also partially be explained with an increasing risk-safety awareness of some of the global approval bodies.

### High revenues and interesting deals

The industry achieved sales of more than CHF 8.7 billion (+7 % compared with 2007) and continued to expand to hire new employees. Actelion's success story continued in 2008 and even reached a new highlight: in September, Actelion joined the SMI family and was the best-performing stock within the index for the entire year.

The Swiss biotechnology sector also saw some very interesting licensing deals:

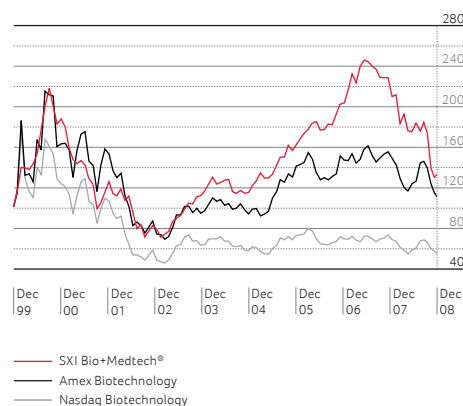
- Actelion / GSK (deal potential of up to CHF 3.4 billion)
- Addex / Merck (deal potential of up to CHF 720 million)
- Cytos / Pfizer (deal potential of up to CHF 150 million)
- Polyphor / Allergan (deal potential of up to USD 68 million)
- Molecular Partners / Centocor (initial fee of USD 5 million)
- Amvac / Bayer (no financial figures released)

Furthermore, the sector experienced some M&A activity whereof the acquisition of Speedel by Novartis for a total price of more than CHF 1 billion was the largest one. This acquisition supported the argument that Big Pharma is purchasing new products in order to compensate for the future when some blockbuster products will get out of patent and significant sales decreases will happen.

### Significant drop in financing

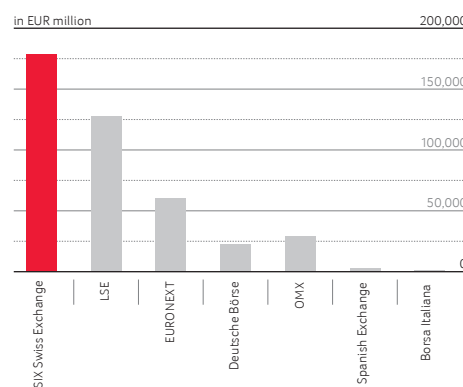
The financial crisis unfortunately didn't avoid the biotechnology industry and a significant drop in financing globally as well as in Switzerland could be noted. The Swiss biotech industry was only able to collect capital in the amount of CHF 228 million. This is a decrease of approximately 75 % compared with the record year 2007. There was almost no seed financing taking place and the negotiation terms were clearly dictated by the investors. However, the fact that Serono's former owner, Ernesto Bertarelli, acted in a PIPE transaction with Santhera was welcomed very positively by the biotech community.

### Performance of SXI Bio+Medtech®

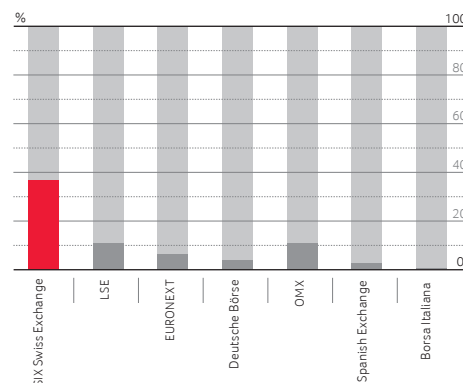


### SIX Swiss Exchange Is the Leading Health Care Stock Exchange in Europe

Market capitalisation of health care companies: approximation based on DJ STOXX TMI companies applying ICB classification

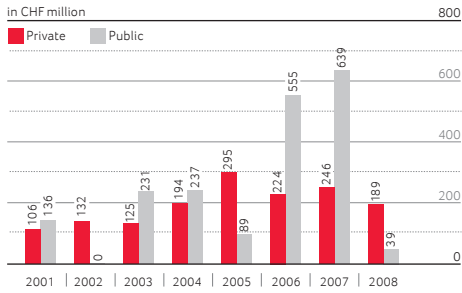


Share of health care versus total market capitalisation

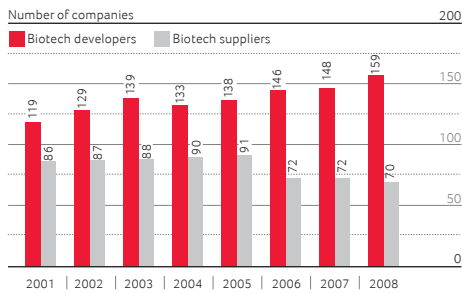


# Facts and figures

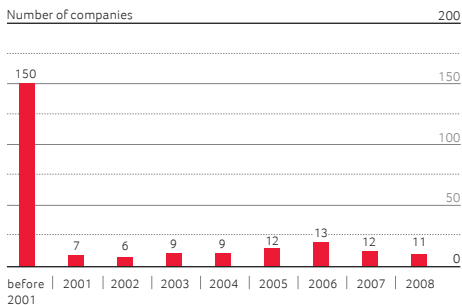
## Private and Public Swiss Biotech Companies Capital Investments



## Number of Biotech Companies in Switzerland

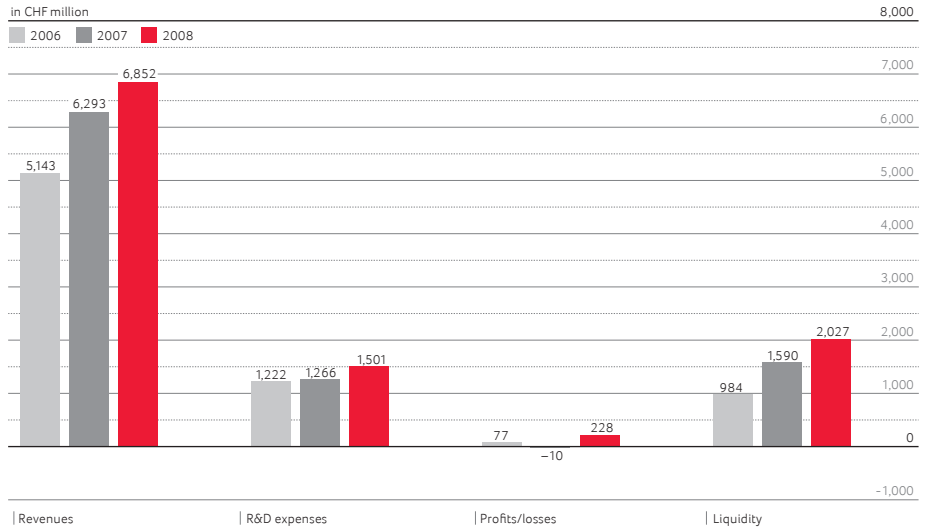


## Year of Foundation of the Swiss Biotech Companies 2008

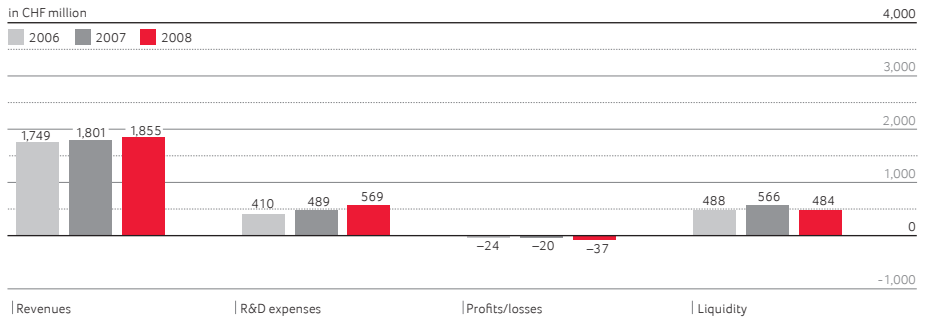


## Public Swiss Biotech Companies

Source: annual reports and website information



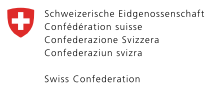
## Private Swiss Biotech Companies



## Notes

- All figures are headquarter-counted.
- The 2008 data in this table are based on the information available in early March 2009, when this report was compiled. At this time some of the companies had not yet disclosed the final financial figures for 2008. Therefore, some figures were carefully extrapolated on the basis of newest interim data publicly available (e.g. Q3 2008).
- Merck Serono's operations (a division of Merck Germany) which are operationally headquartered in Switzerland remain in the data analysis with regard to revenues, R&D and employees.
- Revenues, R&D expenses, profit, liquidity and employees of Lonza's business sectors Biopharmaceuticals and Bioscience were - based on actual figures

- publicly available or carefully estimated - for all three years presented in this report. Lonza's Biopharmaceuticals and Biosciences division are presented for the first time in the data analysis as a consequence of Lonza's transformation into a life sciences company and the inclusion into the ICB Biotech Sector and the SIX LIFE SCIENCES® and SIX Bio+Medtech® indices at the SIX Swiss Exchange. The respective 2006 and 2007 data were adjusted accordingly.
- As some private companies do not disclose financial figures, the figures represent Ernst & Young's best estimate.
- The data presented in this report may deviate slightly from earlier reports due to subsequent reclassification or correction of data.



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