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Swiss Biotech Report 2025

The power of international alliances

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The power of international alliances

"In 2024 Swiss exports of chemicals and pharmaceuticals rose by CHF 13.6 billion (+10%) to a new record of CHF 149 billion, accounting for 52% of all exports. Immunologicals alone accounted for 18.5% of total exports from Switzerland."

Jan Lucht
scienceindustries

"In an era when isolationist policies and "me first" approaches have gained traction, Switzerland's collaborative model offers a compelling counterproposal. By fostering a culture of innovation and shared international knowledge, Swiss players consistently push the boundaries of what alliances can achieve."

Michael Altorfer
Swiss Biotech Association

"Swissmedic works closely with other regulatory authorities and is actively expanding partnerships to harmonize the authorization process for safe, effective and high-quality therapeutic products. This benefits both patients and companies."

Jörg Schläpfer
Swissmedic

"Overall capital investments in the Swiss biotech industry were CHF 2.5 billion in 2024, an increase of 22% compared to the previous year. Private companies performed particularly well, with new record levels of financing and R&D expenses."

Frederik Schmachtenberg
EY

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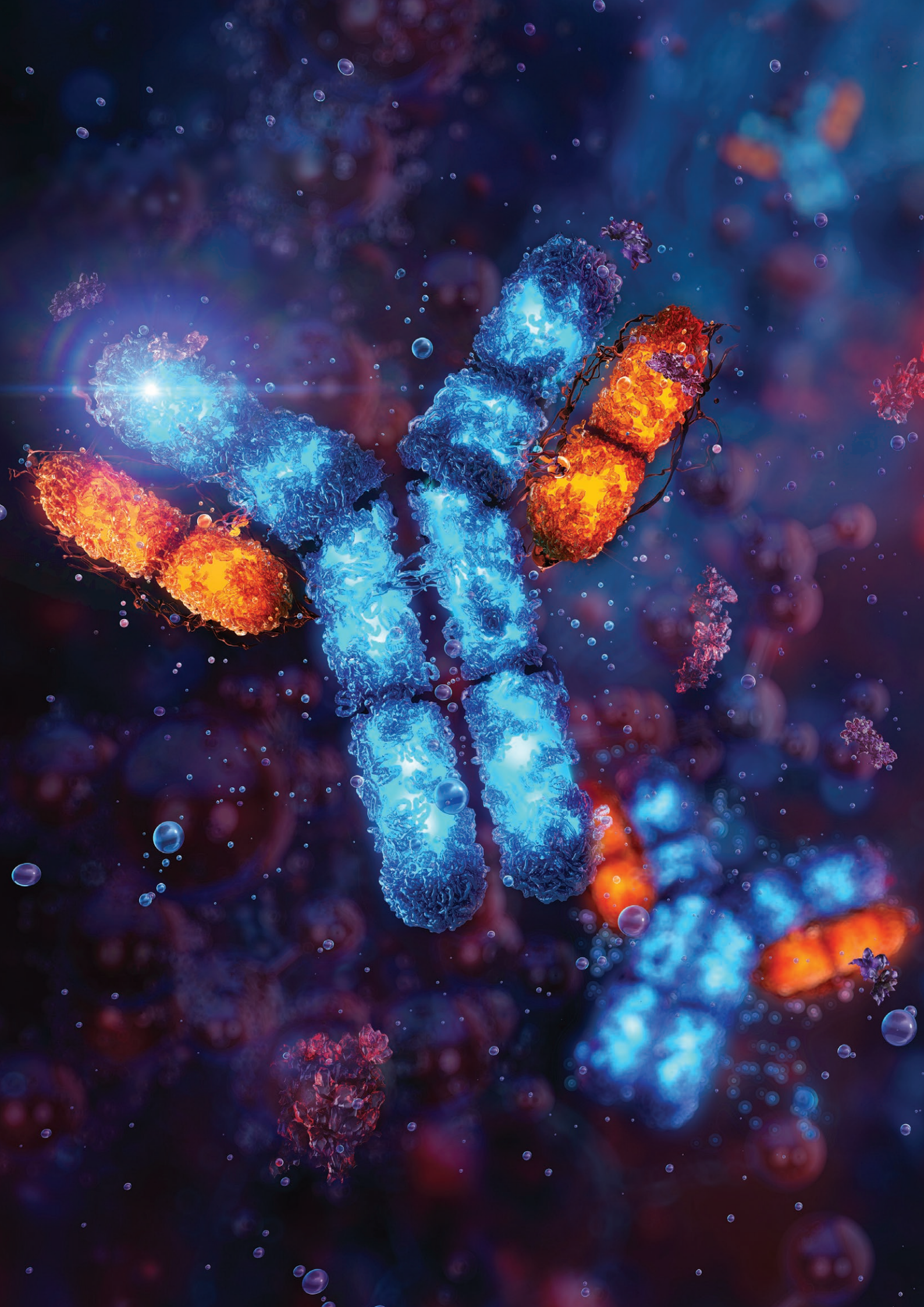


Guest editorial

Severin Dressen
Director Zoo Zurich

Conservation of nature and biodiversity: a global responsibility

There is no doubt that our planet's biodiversity is under severe threat. Studies estimate that around 150 species go extinct every single day. To put this in perspective: if members of the Swiss Biotech Association were to go bankrupt at the same rate, it would cease to exist in about four days.

Biodiversity knows no national borders. Animals, plants, and fungi spread according to ecological conditions, not according to the imaginary lines drawn by one bipedal species. This is why conservation can only succeed through international collaboration. The International Union for Conservation of Nature (IUCN) has coined the term "One Plan Approach" - a holistic strategy that involves all stakeholders, leverages synergies, avoids redundant efforts, and ultimately protects species more effectively.

"Conserving biodiversity is not only one of the greatest challenges facing humankind today - it is also a challenge that can only be tackled collectively. International alliances play a crucial role in ensuring that life in all its diversity continues to thrive on Earth."

The role of modern zoos in conservation

Modern and scientifically managed zoos, such as Zoo Zurich, play a crucial role in the One Plan Approach contributing in four key areas:

- In situ conservation or conservation of habitats: providing financial and expert support for conservation efforts in natural habitats.
- Ex situ conservation or species conservation: protecting endangered animal species by maintaining genetically healthy backup populations.
- Scientific research: conducting vital studies to better understand wildlife and their ecological needs, while contributing to development of new technologies for field research.
- Education & awareness: inspiring, engaging, and educating the public about the beauty, vulnerability, and importance of nature - following the simple yet utterly true principle: *we only protect what we know.*

All but the last area rely fundamentally on international collaboration. No single zoo can be successful in isolation. National and international networks and collaborations are essential for impactful and sustainable conservation.

A long tradition of global cooperation

Swiss modern and scientifically managed zoos, represented by zooschweiz, play a key role in international conservation—both historically and today. In 1935, Switzerland became the birthplace of the World Association of Zoos and Aquariums (WAZA), laying the foundation for a global network of modern zoos. Nearly 90 years later Swiss zoos like Zoo Zurich continue to play a leading role in these international frameworks.

Through eight field conservation projects across the globe, Zoo Zurich helps protect diverse ecosystems, ensuring the survival of thousands of species and integrating local communities into conservation efforts.

As part of a network of hundreds of European partner zoos, we maintain viable populations of endangered species through coordinated breeding programs, six of which are led by Zoo Zurich.

Currently, more than 70 research projects spanning biology, veterinary medicine, and engineering are underway at Zoo Zurich, helping to better understand our threatened biodiversity. Each project is conducted in collaboration with national or international academic institutions. These alliances not only support scientific research but also facilitate the exchange of research data within the conservation community, in line with the One Plan Approach.

Nature conservation depends on the power of international alliances

Saving biodiversity and conserving nature is a collective effort that requires commitment across all levels of society. Through our work - embedded in international networks - we strive to play our part in the global mission to protect nature and its fascinating, beautiful, and vulnerable species.

Editorial Swiss Biotech Report 2025

Michael Altorfer
Chief Executive Officer,
Swiss Biotech Association

"Swiss biotech companies invest around CHF 2.5 billion/year in R&D projects. This funding, combined with the international talent pool, world leading innovation, and the drive to collaborate internationally, contribute to the attractiveness of Switzerland as a partner in global alliances."

This year's Swiss Biotech Report focuses on the power of international alliances. In an era when isolationist policies and "me first" approaches have gained traction, Switzerland's collaborative model offers a compelling counterproposal. By fostering a culture of innovation and international knowledge exchange, Switzerland supports an attractive approach to increase collective impact and join forces to become stronger, faster and smarter together.

None of the Swiss biotech innovators develops a new product or technology for the Swiss market alone. To drive successful R&D projects they must present a compelling global business case to attract the interest of investors and international talent alike. Product development cycles typically extend over 10-15 years, the attrition rate is huge, and the required funding usually exceeds CHF 1 billion. Such high risk and long-term projects can only be justified if they have the potential to generate novel treatment options that benefit patients all over the world.

Switzerland has a long tradition of developing innovative products in close collaboration with strong international partners, thereby providing effective solutions to global challenges. In such alliances, the objective is not to be the most competitive collaboration partner, but to be able to make a valuable contribution to common objectives. To be successful, like-minded and complementary partners team up and strive to achieve mutual goals that benefit all the parties involved. This approach is so firmly anchored in the Swiss biotech hub that four out of five biotech patents filed in Switzerland are the result of close international collaborations (see Swiss Federal Institute of Intellectual Property article, Page 18). At the same time, Switzerland has assembled a diverse and international talent pool that strongly facilitates global exchange of experience and best practices.

This year, the Swiss innovation agency Innosuisse will assume the chairmanship of the Eureka innovation initiative, an international alliance which comprises 47 countries along with the European Commission. In this capacity, Innosuisse will have the opportunity to help further strengthen and expand this non-dilutive global research grant network (see Swiss Biotech Association article, Page 34). Similarly, the Swiss Agency for Therapeutic Products (Swissmedic), has helped to shape the Access Consortium for joint regulatory approval across Australia, Canada, Switzerland, Singapore, and the UK (see Swissmedic article, Page 30). These are just two examples of how Switzerland engages in the formation of international alliances from basic research to regulatory approval and market access (see also articles SNSF, Page 16, and Biotechnet, Page 22).

While Switzerland's contribution is particularly strong in the biopharma sector, it increasingly partners in industrial biotechnology applications as well (see SATW article, Page 26, and scienceindustries, Page 38). The guest editorial in this report, by the director of the Zurich Zoo, highlights that international alliances are also an essential element in the protection of biodiversity and animal health.

As outlined in the "Facts and Figures" section (see Page 8) in 2024 Swiss biotech companies attracted capital investments of CHF 2.5 billion and invested CHF 2.6 billion in their R&D projects. These funds, combined with the international talent pool, its innovation power, and the spirit to collaborate with all countries around the world, contribute to the attractiveness of Switzerland as a partner in international alliances.

On behalf of all the partners of the Swiss Biotech Report 2025, I invite you to dive into the articles in this year's report that address the main topic "the power of international alliances" from their different perspectives. They demonstrate that Switzerland is an attractive partner for international collaboration along the entire value chain. In this role, Switzerland can contribute effectively to the development, manufacturing (see S-GE article, Page 40) and distribution of innovative products. It can help streamline and accelerate international collaboration processes to develop novel solutions and technologies more rapidly and make them available across the world.

Swiss biotech 2024: Facts & figures

Frederik Schmachtenberg

EY | Partner, Global Life Sciences Lead for Financial Accounting Advisory Services

Helena Rosa

EY | Director, Global Health Sciences & Wellness, Audit Services

Despite many biotech companies continuing to face financing challenges in 2024, some Swiss companies performed well and positively influenced the key industry metrics. Overall capital investments in the Swiss biotech industry were CHF 2.5 billion in 2024, an increase of 22% compared to the previous year, but this was shared between a relatively small number of companies. Private biotech companies performed particularly well, with new record levels of financing (CHF 833 million), record levels of R&D expenses (CHF 1.4 billion) and total revenues of CHF 2 billion, an increase of 10% compared to 2023 levels.

As in 2023, in some respects 2024 continued to be a difficult year for the biotech sector overall, mainly due to ongoing challenges in the financing environment of public capital markets. Despite these circumstances, many Swiss biotech companies developed strongly. Globally there were 30 IPOs in 2024 (2023: 18), generating approximately USD 4.0 billion in funds (2023: USD 2.9 billion), with 26 of the IPOs occurring in the US. There were four biotech IPOs in Europe (compared to two in 2023) but the funds raised by these four IPOs was USD 106 million (USD 0.3 billion in 2023). In Switzerland there was only one capital market transaction in 2024, through a reverse merger transaction (Curatis) in April 2024.

Swiss biotech landscape

In 2024, the Swiss biotech industry overall saw a slight decrease in revenues recognized (CHF 7.2 billion in 2024 compared to the record level of CHF 7.3 billion in 2023), whereas R&D investments slightly increased (CHF 2.6 billion in 2024 compared to CHF 2.4 billion in 2023). Consistent with the increase in R&D expenses, the number of FTEs working in Swiss R&D biotech companies also increased compared to 2023, which seems to be an indicator that even when some companies had to restructure or reorganize, the highly qualified employees often quickly find new opportunities with other companies in the biotech sector. However, the increase in FTEs should also be seen in the context of Swiss CDMOs' increased relevance. As CDMO activity today includes more and more complex molecular structures, combined with increased GMP regulations, the specialized R&D and production know-how of Swiss CDMO has seen a significantly uptick in demand. Also, looking at the performance of public and private biotech companies separately, it is impressive how well private biotech companies performed in 2024, with record levels of financing (CHF 833 million), record levels of R&D expenses (CHF 1.4 billion) and total revenues of CHF 2 billion, an increase of 10% compared to 2023 levels.

In terms of overall financing, the Swiss biotech industry raised more than CHF 2.5 billion in 2024 (2023: CHF 2.0 billion), an increase by more than 22% in capital investments, with around CHF 1.7 billion collected by public companies and the remaining CHF 0.8 billion collected by private companies. Alentis Therapeutics (with CHF 163 million raised) and SixPeaks Bio (with CHF 102 million raised) were the two largest private company financing transactions in 2024, contributing to the new record level of financing for the private Swiss biotech companies mentioned above.

As noted, given the overall difficult capital market environment, there was no Swiss listing activity in 2024 other than the Curatis reverse merger into Kinarus Therapeutics Holding on SIX Swiss Exchange, announced in January 2024 and successfully completed in April 2024. Further, CRISPR Therapeutics, a Swiss biotech that went public in 2016, in 2024 secured a USD 280 million (CHF 247 million) follow-on financing, to finance its on-going clinical trials in oncology, cardiovascular and diabetes and further accelerate its auto-immune and in vivo gene writing programs.

However, 2024 was still a difficult year for several publicly listed companies, which resulted in the initiation of some restructuring measures or, even worse, the going concern assumption was in question due to setbacks in clinical studies or insufficient funding. Selling of valuable assets (Evolva, Spexis), entering a reverse merger transaction (Kinarus), or even taking the decision to stop operations (ObsEva) were some of the unfortunate implications. However, also in the circle of public biotech companies, there were several companies that were able to navigate the, in some respects, difficult

environment well and were able to hit significant development or product approval milestones in 2024 (e.g., Basilea, Santhera).

In summary, while total capital investments in 2024 increased by more than 22% compared to 2023, relatively few companies benefited; in other words, many companies unfortunately received little or no funding. This is also evidenced by the fact that the total financing of the Top 5 financing transactions in 2024 increased by 80% for public biotech companies and by 30% for private biotech companies, compared to 2023; a trend that started in 2023 and which continued in 2024.

In addition, or one could say as a result, with equity and debt markets still being more difficult to access for many companies, Swiss biotech companies continued to be agile in terms of finding alternative ways of financing (licensing, collaborations, but also monetization of assets transactions) which, in a similar way to 2023, provide significant non-dilutive financing also in 2024.

PUBLIC COMPANIES	CHF MILLION
Lonza	1'125
CRISPR Therapeutics	247
ADC Therapeutics	96
Santhera Pharmaceuticals	69
Oculis	54
Total	**1'590**

Table 1: Major 2024 public financing transactions

PRIVATE COMPANIES	CHF MILLION
Alentis Therapeutics	163
SixPeaks	102
Asceneuron	90
iOnctura	76
Neurosterix	57
Total	**488**

Table 2: Major 2024 private financing transactions

M&A and collaborations

Swiss companies were involved in several significant M&A transactions:

- Lonza signed an agreement to acquire the large-scale biologics site in Vacaville (US) from Roche
- The business combination of Kinarus Therapeutics Holding (now renamed to Curatis Holding) and Curatis, with the first trading day of the Curatis Group shares (CURN.SW) on SIX in April 2024
- Johnson & Johnson acquired Yellow Jersey Therapeutics, a demerged subsidiary of Numab for USD 1.25 billion in May 2024

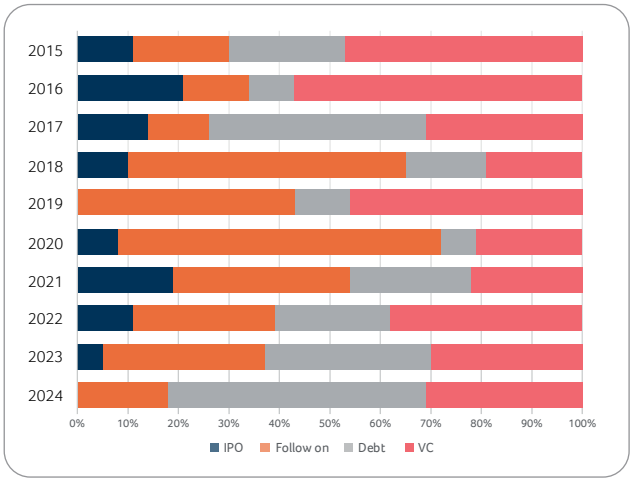


Figure 1: Biotech financing categories in Switzerland 2015 to 2024

At the same time, entering into new collaboration and licensing agreements was important for several Swiss biotech companies as some of those partnerships contained significant attractive financial components, which – as mentioned above – provided alternative ways of funding (alternatives to equity or debt financings, which continued to be more difficult to obtain in 2024). A selection of such collaboration and licensing transactions is shown below:

- NewBiologix signed a licensing agreement with Florabio to genetically engineer their proprietary HEK293 cell line for recombinant adeno-associated virus (rAAV) vectors
- Idorsia and Viatris entered into global R&D collaboration, with an upfront payment of USD 350 million and potential development and regulatory milestone payments, additional sales milestone payments, and tiered royalties on annual net sales
- Addex and Perceptive launch Neurosterix, a company focused on developing allosteric modulators with USD 63 million of initial funding
- MoonLake Immunotherapeutics entered into a three-year technology partnership with Komodo Health to advance research on inflammatory skin and joint conditions
- BioVersys announced an expansion of the strategic collaboration with GSK and an extension of its Series C by CHF 12.3 million
- AC Immune and Takeda signed an exclusive option and license agreement for active immunotherapy targeting Amyloid Beta for Alzheimer's disease, receiving USD 100 million as an upfront payment, with the further possibility to receive USD 2.1 billion

Swiss biotech 2024: Facts & figures

CONTINUED

- Topadur Pharma and Oshen Holdings signed a CHF 15 million agreement to co-develop and commercialize TOP-M119 for treating alopecia in Greater China
- Valneva and LimmaTech entered into a strategic partnership to accelerate the development of the world's most clinically advanced tetravalent Shigella vaccine candidate
- HAYA Therapeutics entered into a collaboration with Lilly to discover novel Regulatory Genome Targets for obesity and related metabolic conditions using proprietary RNA platform and is eligible to receive up to an aggregate USD 1 billion in milestone payments
- Numab Therapeutics and Kaken Pharmaceutical entered into a collaboration and option agreement for multi-specific antibody ND081 for treatment of inflammatory bowel disease, with Numab receiving a CHF 13 million upfront payment
- Basilea announced signing of an agreement with Innoviva Specialty Therapeutics for the commercialization of antibiotic Zevtera® (ceftobiprole) in the United States, receiving USD 4 million upfront and additional potential USD 223 million to be received at a later stage

Product developments

In 2024, the industry saw an increased number of regulatory approvals, which is very positive. More specifically, the EMA approved 114 new drugs in 2024 (2023: 77 new drugs) although there was a slight decrease in FDA approvals, with 50 new drugs approved (compared to 55 in 2023).

Furthermore, among the new FDA approvals there was one new drug developed by Octapharma, which received approval for fibryga to treat acquired fibrinogen deficiency, as well as Basilea's FDA approval of antibiotic Zevtera® (ceftobiprole medocaril) for three indications. Besides the increased number of approvals, it is also positive to note that Santhera's AGAMREE® obtained approval in China and in Hong Kong during 2024.

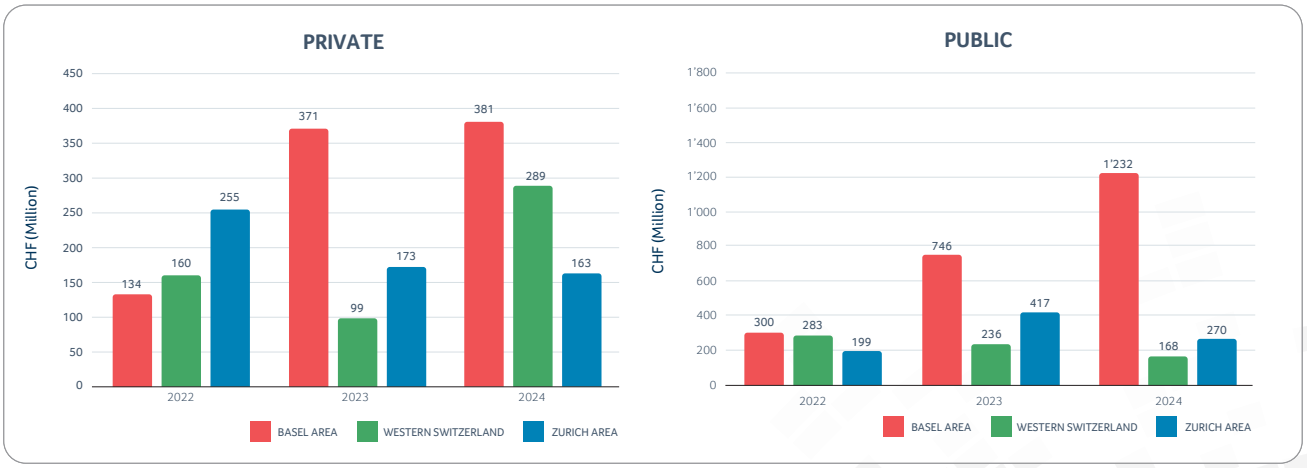
In terms of new product approvals in Switzerland (approvals by Swissmedic), a similar trend could be observed. In 2024 54 applications for new product approvals were received by Swissmedic, of which 46 were approved (2023: 49 applications, of which 41 were approved).

Awards

Several Swiss biotech companies also received various prestigious awards throughout 2024. Some of these awards included:

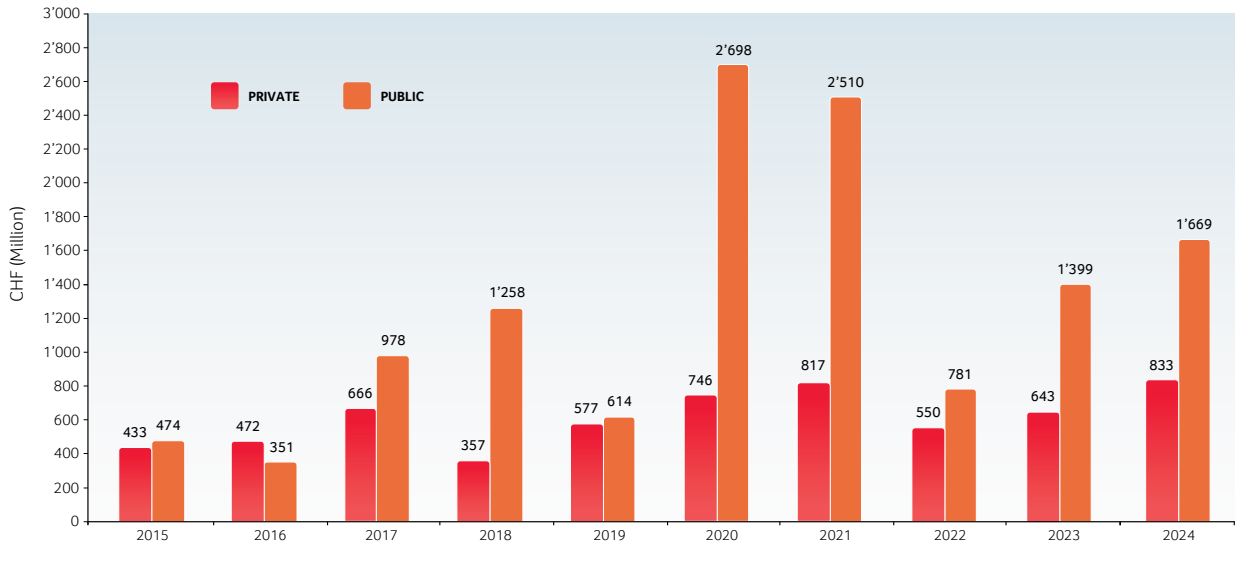
- SOPHiA GENETICS named in "Built In's Esteemed 2024 Best Places to Work" awards
- Idorsia's novel treatment for chronic insomnia won the prestigious Prix Galien Suisse 2024 innovation award in the 'Primary & Speciality' category
- Andreas & Thomas Strüngmann award recognized HAYA CEO Samir Ounzain and CTO Daniel Blessing for their entrepreneurial vision in life sciences in the DACH region

Private & public Swiss biotech regional financing 2022-2024



Capital investments in Swiss biotech companies 2015 -2024

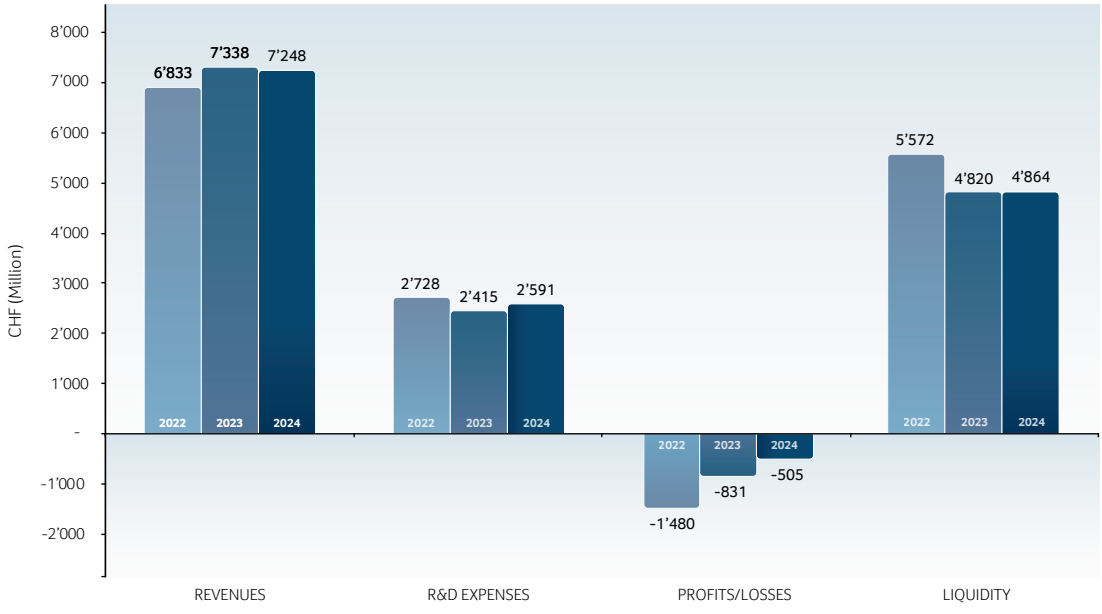
Private & Public Swiss Biotech Companies



Source: EY (Capital investments include convertible bonds)

Revenues, R&D expenses, profit/loss, liquidity 2022-2024

Total Swiss Biotech Companies



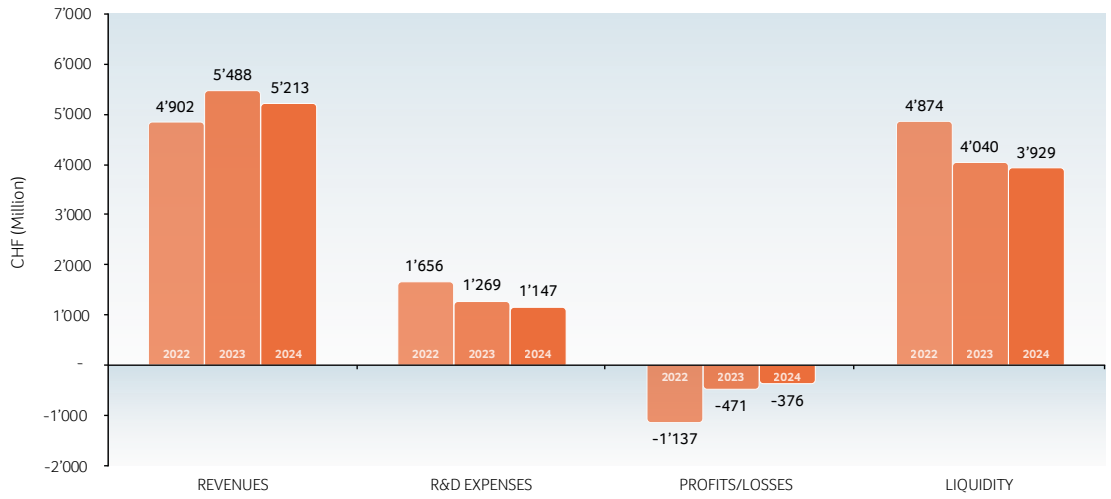
Source: Annual Reports, website information and EY

Note: The 2024 data in above tables is based on information that was available up until March 31, 2025. At this time, some of the companies had not yet disclosed their financial figures for 2024. Therefore some figures were carefully extrapolated on the basis of the latest interim data publicly available (i.e. Q3 or Q4 2024).

The year in charts

Revenues, R&D expenses, profit/loss, liquidity 2022-2024

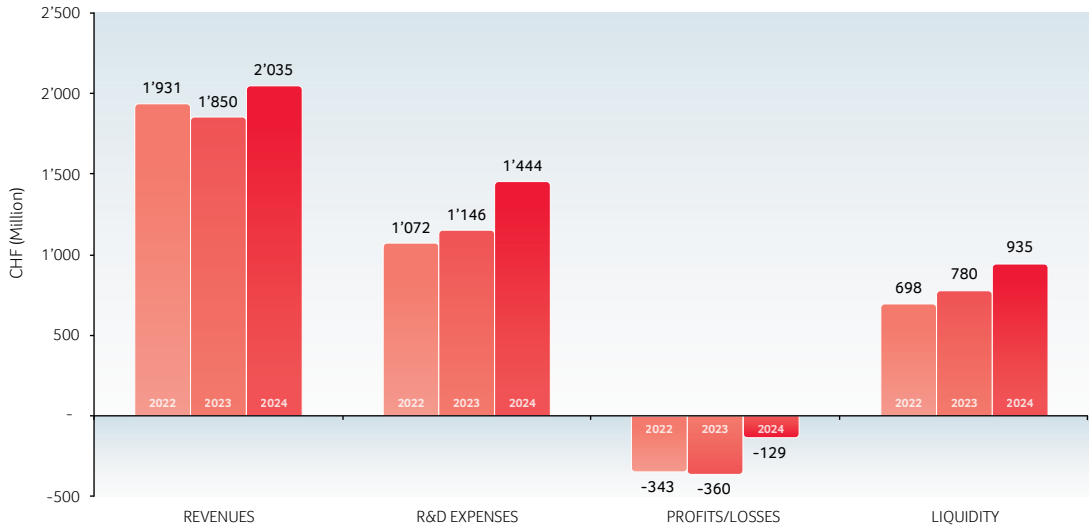
Public Swiss Biotech Companies



Source: Annual Reports, website information and EY

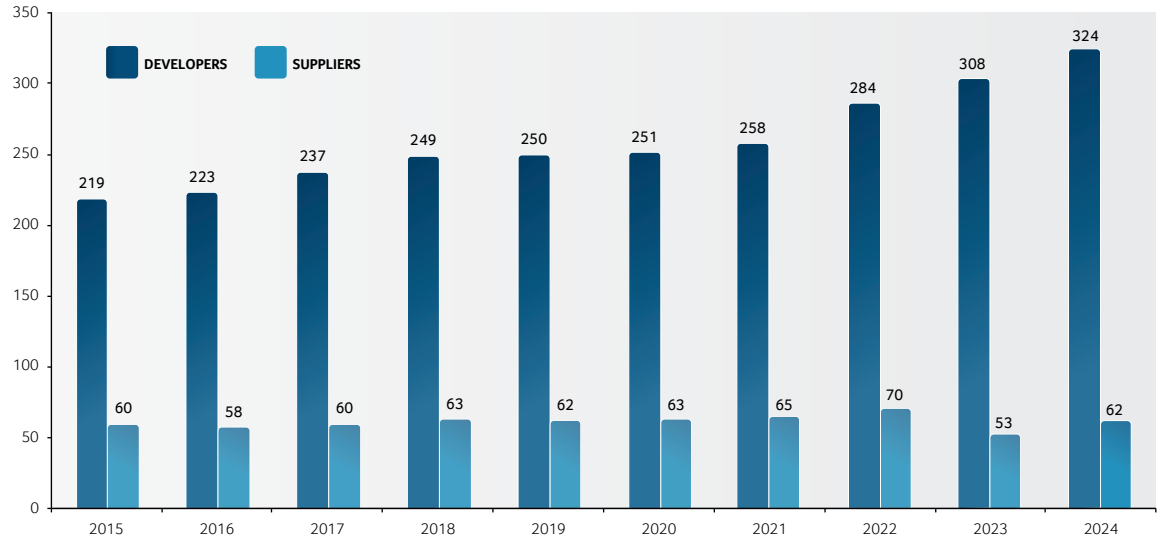
Revenues, R&D expenses, profit/loss, liquidity 2022-2024

Private Swiss Biotech Companies



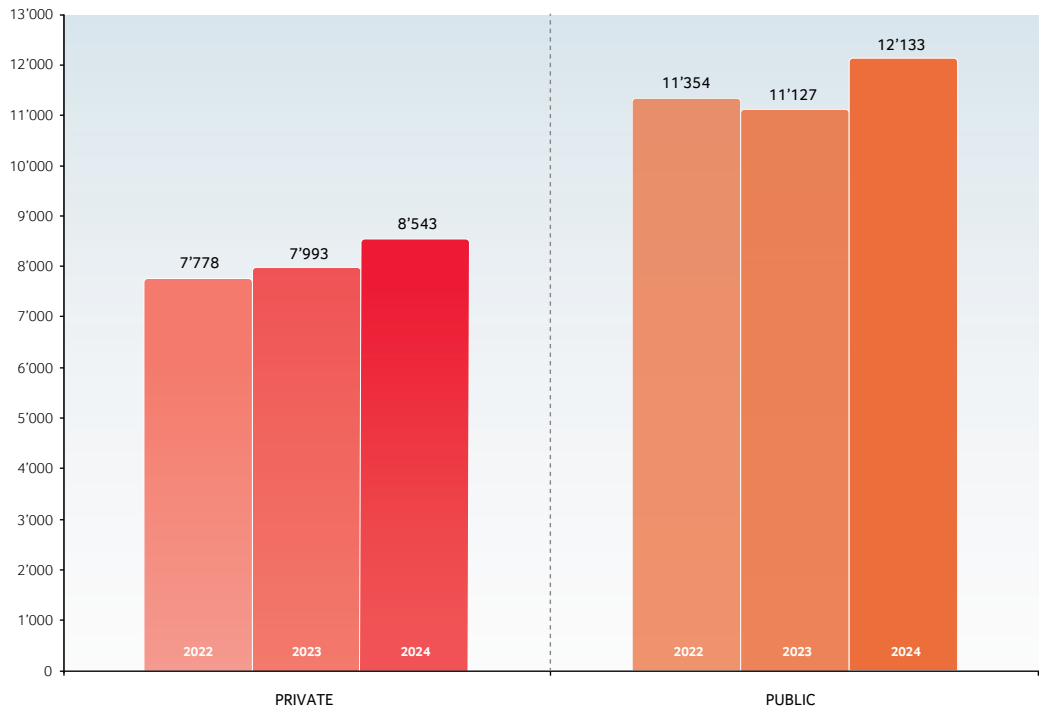
Source: Swiss Biotech Association, EY (incl. estimates and extrapolations based on prior year figures)

Number of biotech companies in Switzerland 2015-2024



Source: Swiss Biotech Association, website information and EY

Number of Swiss biotech employees 2022-2024



Source: Annual Reports, website information and EY

The science industries: Driver for Swiss exports

scienceINDUSTRIES
SWITZERLAND

Jan Lucht

scienceindustries | Head Biotechnology

Products from the chemical, pharmaceutical and life sciences industries contributed CHF 149 billion to Switzerland's export trade in 2024. With a 52% share of total exports, the sector has extended its lead as Switzerland's largest export industry.

Despite the challenging economic environment, Swiss exports recovered from a slight decline in the previous year to reach a new record of CHF 282.9 billion (+3.2%) in 2024. This was only possible thanks to the strong performance of the chemicals and pharmaceuticals sector. While all the other major sectors, except food and tobacco, saw their exports fall, chemicals and pharmaceuticals rose by CHF 13.6 billion (+10%) to a new record of CHF 149 billion, more than offsetting the losses in the other sectors.

Looking at the evolution of the export shares of the main industrial sectors over the last 25 years, there is a clear shift towards the chemicals and pharmaceuticals category (Figure 1), to which life science products, including pharmaceuticals, vitamins and diagnostics, contribute a large share (more than two thirds in 2024). Since 2013, chemicals and pharmaceuticals has been the largest export sector. It accounted for 52% of all Swiss exports in 2024 and is the central pillar of Swiss foreign trade growth: of the total increase in Swiss exports between 2000 and 2024 (CHF 156.4 bn), 72% came from this sector alone.

Export statistics for goods do not usually take into account production methods. In the case of the immunologicals subsector, however, it is clear that it consists of modern biotechnology products such as monoclonal antibody therapeutics, vaccines, cell cultures and cell therapies. The dynamics here are impressive: in 2000, exports of immunologicals were worth CHF 1.9 billion; by 2024, this figure had risen to CHF 52 billion. In 2024, immunologicals accounted for 18.5% of total exports from Switzerland, and for 32.2% of export growth over the past 25 years.

An excellent combination of framework conditions has earned the Swiss chemical, pharmaceutical and life sciences industry second place behind the US in the international Global Industry Competitiveness Index GICI (BAK Economics, 2024). The ability of Swiss life sciences companies to innovate, provide solutions for global patient and customer needs and adapt quickly to changing requirements, together with a network of international alliances, make Switzerland a global leader in biotechnology.

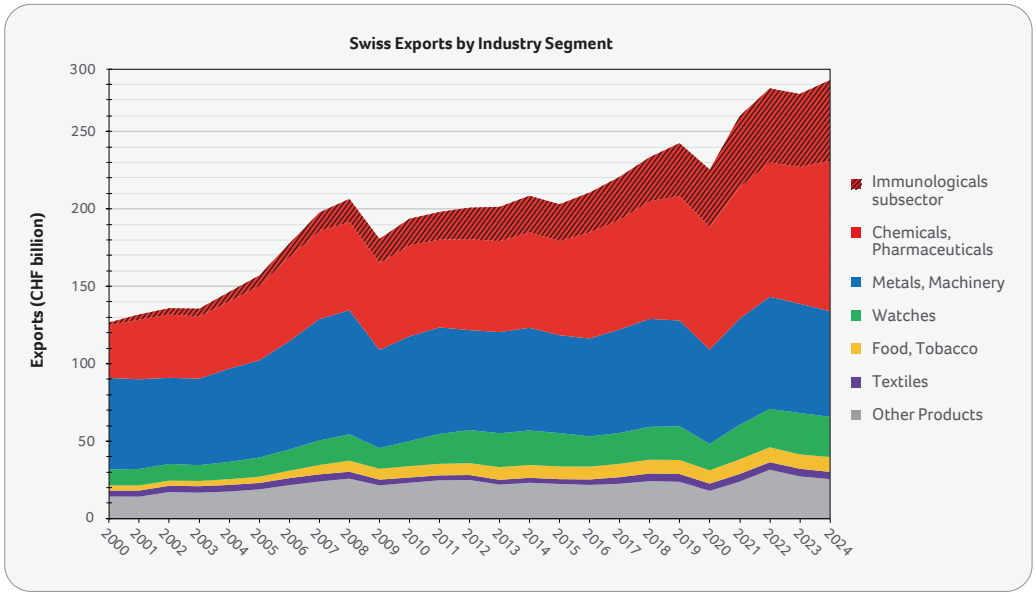


Figure 1: Annual Swiss exports according to industry sector demonstrate the increasing importance of the chemical, pharmaceutical and life sciences industries. This sector alone contributed 52% to the total Swiss exports in 2024. Immunological products of biotechnology, including therapeutic proteins and vaccines, are a strong driver of this sector's growth (Data: scienceindustries /Federal Customs Administration 2025, Swiss-Impex database).

The SNSF promotes cross-border competition and cooperation to increase the quality of science

Florian Fisch

Swiss National Science Foundation | Science editor

International scientific exchange ensures that the world's best can compete and collaborate with the most advanced methods and technology in their field. The Swiss National Science Foundation (SNSF) values global collaboration and offers researchers a range of opportunities. Laure Ognois, Head of the International Cooperations Department at SNSF, discusses key questions on the benefits of collaboration and how to overcome potential hurdles.

Laure Ognois

Laure Ognois started her career with a PhD in modern history and subsequently obtained a Masters of public administration in science and innovation management. She has worked in research and innovation cooperation in France, Germany and Switzerland.

Why should a Swiss organization like the SNSF encourage international cooperation at all?

A key value of science is openness, and research only functions if it is based on cooperation. It relies on researchers working and competing at a global level, and the evaluation of research according to internationally recognized standards. In addition, researchers need a network to develop their career paths. Knowledge and knowhow stem from the exchange of results. The same is true for innovation. But there is one restriction: intellectual property makes international exchange more complicated.

What is the influence of the current geopolitical uncertainty?

Two key values are coming into conflict: openness and security. There is currently a shift in western research policy towards knowledge security. Policy makers use the phrase "open if possible, restricted when necessary". Last year the Swiss parliament discussed positions towards countries like China, Russia, and Iran - but then there is also the Swiss neutrality.

Does this mean, that Swiss research is less open than previously?

The SNSF has started a project on knowledge security and research ethics. In addition, the federal council has set up two working groups which included governmental departments such as justice, defense, intelligence services and economy. We will develop a tool to make applicants aware of potential risks when cooperating internationally. The goal is to foster global cooperation while ensuring the integrity and the security of research and researchers.

Where do the biggest difficulties lie?

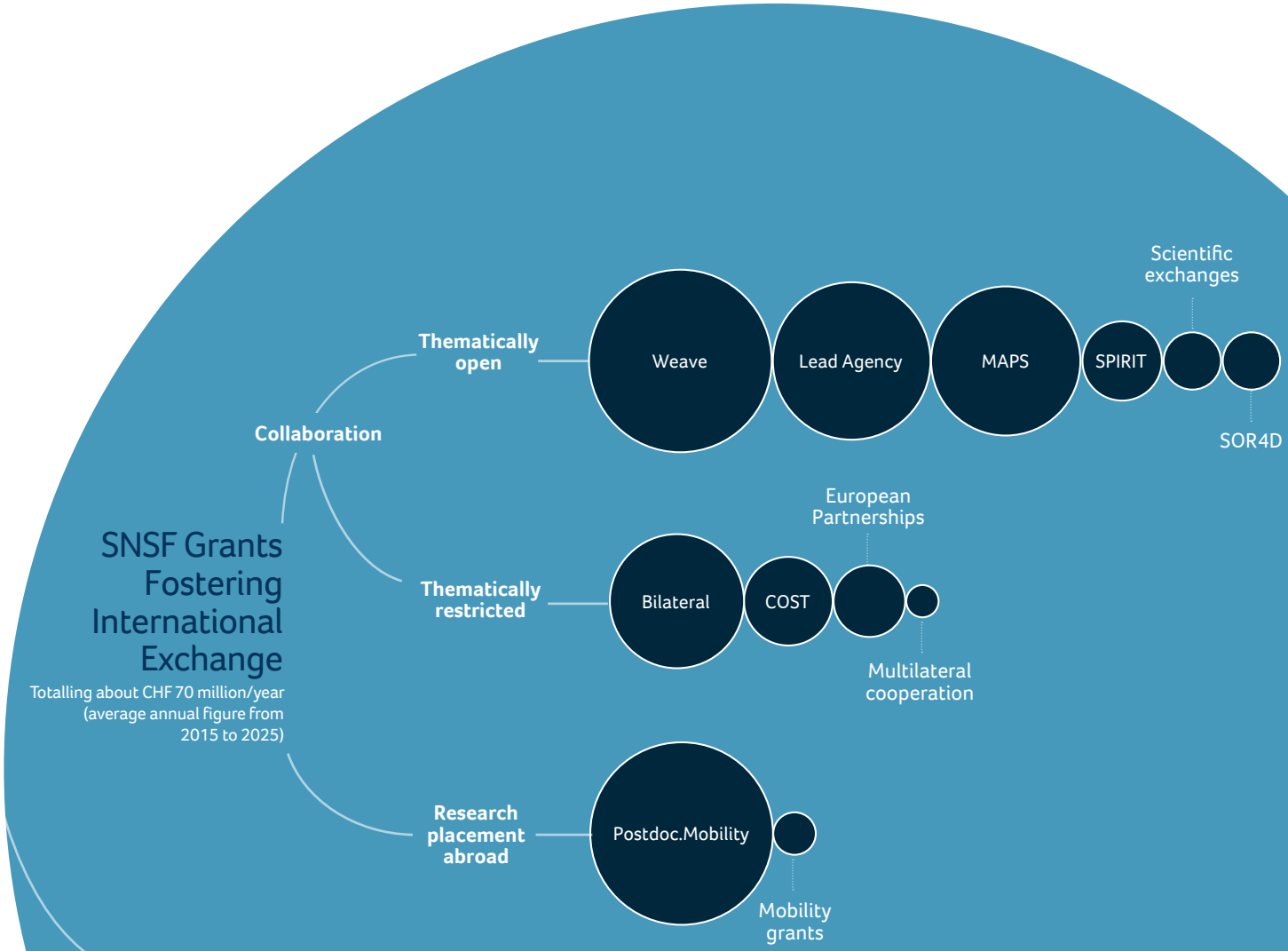
I can give you two examples: China and Turkey. China has new legislation on data protection that is challenging for Swiss-based researchers. They need to be aware that Chinese authorities could access, use and modify data without the applicants' consent and for any purpose. Furthermore, data leaving China may undergo security clearance by Chinese authorities. We have therefore decided to postpone our plan for bilateral collaboration with China, but we cannot and do not want to stop cooperation with China forever. We are trying to develop solutions hand in hand with our partners, with the Chinese and Swiss governments.

How about Turkey?

Switzerland is part of the Weave program and Turkey would like to join. A country must fulfil a set of criteria to participate; academic freedom is one the most prominent one among them. But currently academic freedom is not fully guaranteed in Turkey. On the other hand, if we exclude researchers from Turkey, they will not have the opportunity to change anything in their system. It is getting more and more difficult to separate science and politics.

Where do innovation and industrial partners come into these SNSF programs?

There are different schemes: European and international, multilateral and bilateral. The European Partnerships do more applied research and more mission-oriented research than the European Research Council. We have also recently launched a program with the UK National Institute for Health and Care Research to support clinical trials. Our joint program with Innosuisse, BRIDGE, is not yet internationalized. As I explained earlier, this is tricky because of intellectual property laws that are different in different countries. What if a collaboration between Switzerland and the US results in a product? Who owns it? What if the conditions for business are better in another country? Switzerland of course also hopes for a return on its investment.



Thematically open international collaboration

- **Weave** allows researchers from different European countries to receive money for a joint research project from different funding agencies, with one of them being the lead funder.
- **The Lead Agency program** follows the same principle as Weave for a selection of other countries and funding agencies.
- **MAPS** is a specific program for cooperation between Bulgaria, Hungary, Croatia, Romania and Poland.
- **SPIRIT** allows cooperation specifically with countries in the global south, with a focus on training researchers and equal opportunities.
- **Scientific exchanges** are grants to organize an event in Switzerland and invite people from abroad for short stays.
- **SOR4D** is a joint program with the Swiss Agency for Development and Cooperation fosters collaboration with the global south and east to advance the sustainable development goals.

Thematically restricted international collaboration

- **Bilateral** and **multilateral collaborations** usually set up several research projects around a common theme that is important to the countries involved.
- **COST** initiatives allow researchers to get extra money for networking across borders on specific topics.
- **European Partnerships** is a set of programs around a set of themes within Europe.

Helping Swiss scientists to work abroad

- **Postdoc.mobility** grants allow young researchers to do a postdoc in another country.
- **Mobility grants** allow people within other SNSF projects to join a research group abroad.

Helping foreign scientists to work in Switzerland

Some SNSF funding schemes are open to foreign researchers coming to work in Switzerland.

- **Ambizione** is aimed at early career researchers who want to start their independent project.
- **SPARK** aims to support unconventional, high-risk projects.

Switzerland's scientific footprint in biotechnology beyond patents

Christian Moser Nikles
Swiss Federal Institute of Intellectual Property | Patent Expert

Christel Aebischer
Swiss Federal Institute of Intellectual Property | Patent Expert

Switzerland's global influence in biotechnology research and innovation has continued to grow in recent decades. Two thirds of journal articles with a Swiss author include international partners, and there is a strong correlation between international collaboration and quality as measured by citation frequency. Biotechnology articles from Swiss institutions are cited most frequently, both in scientific publications and in patents.

For the past 14 consecutive years, Switzerland has been ranked as the world's most innovative economy according to the Global Innovation Index (GII). Among the more than 80 indicators used in the GII ranking, patents and scientific publications are included in the category 'knowledge and technology output'. Whereas patents have been the focus in previous Swiss Biotech Reports, this year's article aims to show Switzerland's footprint in the scientific literature in the field of biotechnology, based on data extracted from the free online database **The Lens**.

Scientific publications represent the visible output of research activities, in particular for public research institutions such as universities. However, from an economic perspective, the most important function of universities remains the education of the next generation of competent professionals. For this reason, the GII ranking also includes several indicators for the quality of education, including university rankings.

Scientific publications come in various forms, and journal articles account for around 70% of them. The data presented in this article was restricted to journal articles only, in order to exclude publications with incomplete records or lacking peer review, such as preprints or conference abstracts.

The biotechnology sector has grown rapidly and consistently during the past 50 years, as illustrated in Figure 1. Throughout this period the number of journal articles published has exceeded the number of new patents filed more than tenfold. Globally, both the number of patents filed and the number of journal articles published per year have tripled in the past 20 years.

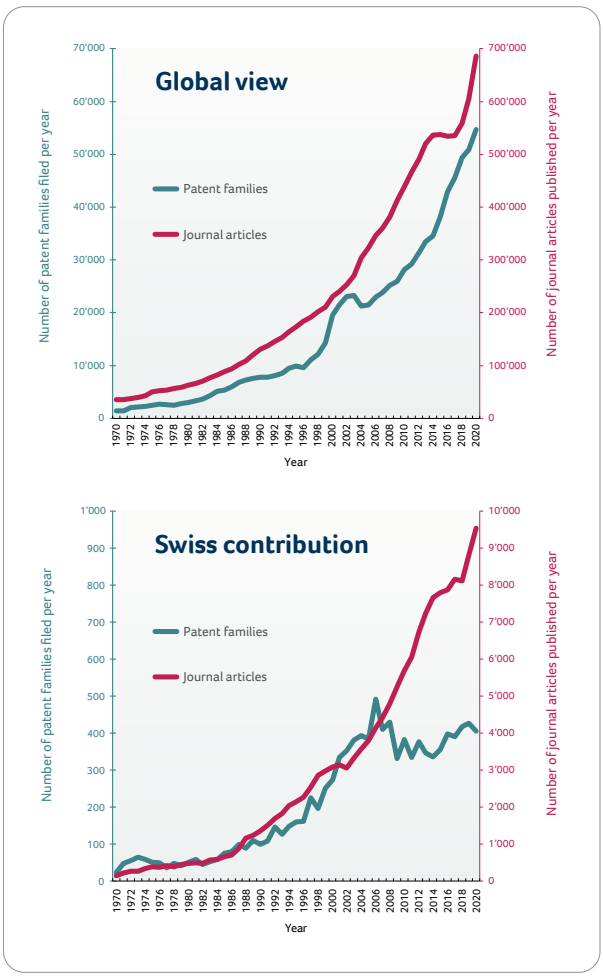


Figure 1: Switzerland keeps the global pace with journal articles, not with patents

Journal articles published by Swiss institutions match the global growth. In contrast, the number of patent filings assigned to inventors with residence in Switzerland increased rapidly from 1990 to 2006 but has remained at the same level since then.

In Figure 2, the bars represent the proportion of Swiss contributions to the global patent filings (left panel) and journal articles (right panel). For patents, 'Swiss contribution' means that at least one inventor is a Swiss resident. For journal articles, 'Swiss contribution' means that at least one author is affiliated with a Swiss institution or company.

The Swiss contribution in the biotechnology field is substantially higher than the average over all sectors. This applies equally to patent filings and journal articles, and to all three decades shown in the analysis.

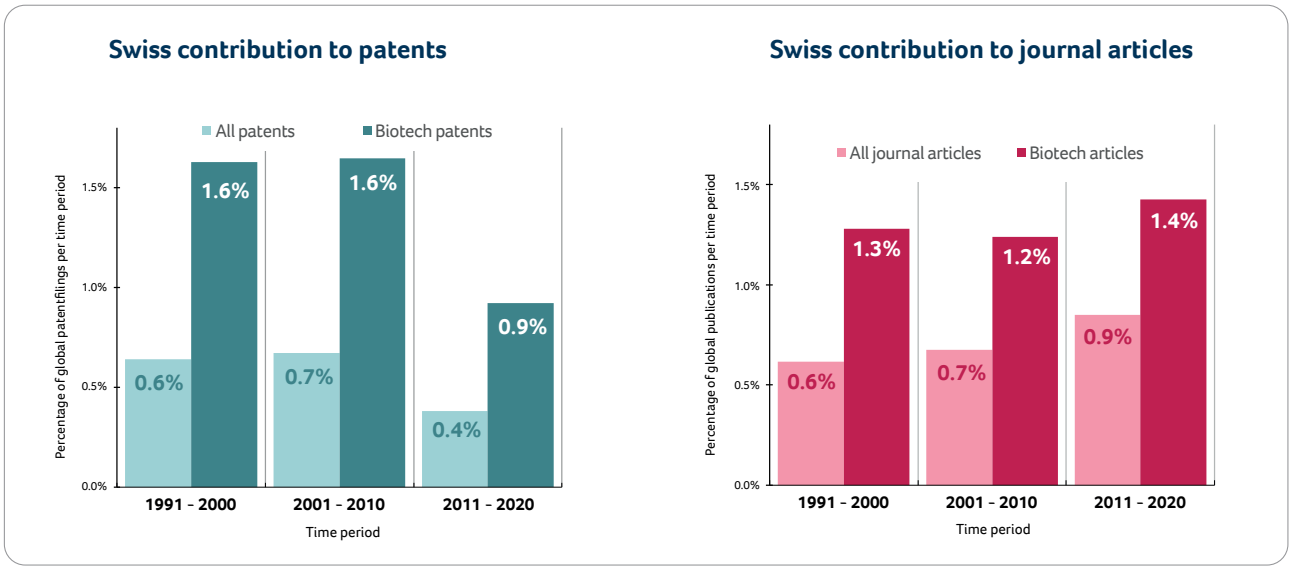


Figure 2: Swiss contribution in biotechnology is exceptionally high for patent filings and journal articles

As already evident in Figure 1, the Swiss contribution in patent filings has decreased in the last two decades, due to stagnation since 2006. In contrast, the Swiss contribution to journal articles has further increased.

From 2011 to 2020, 13% of the 43 million journal articles published worldwide related to biotechnology. This proportion is around 20% for articles originating from North America, Japan, China, and many European countries including Switzerland, with only subtle differences between these countries and regions.

In the same period, over 16 million patents were filed worldwide, and 2.5% thereof relate to biotechnology. Of the 63'000 patents with at least one inventor from Switzerland, 5.6% concern biotechnology.

In Figure 3, the bars represent the average number of scholarly citations (left panel) and of patent citations (right panel) received per journal article of Swiss origin between 2011 and 2020.

'Exclusively Swiss' means that all authors are affiliated with Swiss institutions, while the category 'International' comprises articles from Swiss institutions in collaboration with institutions from abroad. The average number of citations received is a way to measure the quality of a set of publications. More sophisticated quality indicators would include the journal impact factors, both of the papers themselves and of the citing papers. However, these data are not accessible on **The Lens**.

Among the journal articles of Swiss origin, those in the field of biotechnology receive significantly more scholarly citations than papers in other fields, but not more patent citations.

Journal articles with international authorship receive consistently more citations than those with exclusively Swiss authorship. This applies to both scholarly and patent citations, and to the biotechnology subset as well as to all papers.

Switzerland's scientific footprint in biotechnology beyond patents

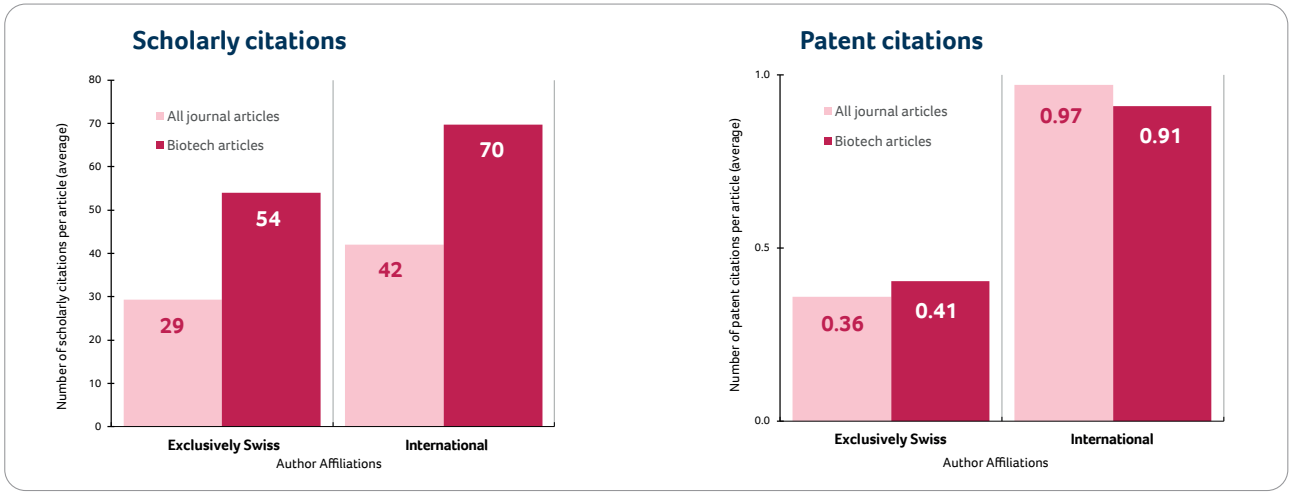


Figure 3: Swiss journal articles with international authorship are cited more frequently than average

The bubble graphs in Figure 4 show the top 25 countries of origin for journal articles in the biotechnology sector for 2011 to 2020. The proportion of articles with international authorship is plotted against the average number of citations received per paper, either from journal articles (left panel) or from patents (right panel). The bubble sizes represent the total number of papers published per country between 2011 and 2020.

Switzerland (CH) features the highest level of international collaboration, closely followed by other smaller European countries, such as Sweden, Belgium, Austria, Denmark, and the Netherlands. The papers from these European countries receive almost as many scholarly citations as papers from Switzerland. In contrast, journal articles originating from the US rank second after Switzerland in terms of patent citations received.

Both graphs show a high degree of consistency with the patent data published in the **Swiss Biotech Report 2023** (Page 20), although the latter is based on a completely different data set.

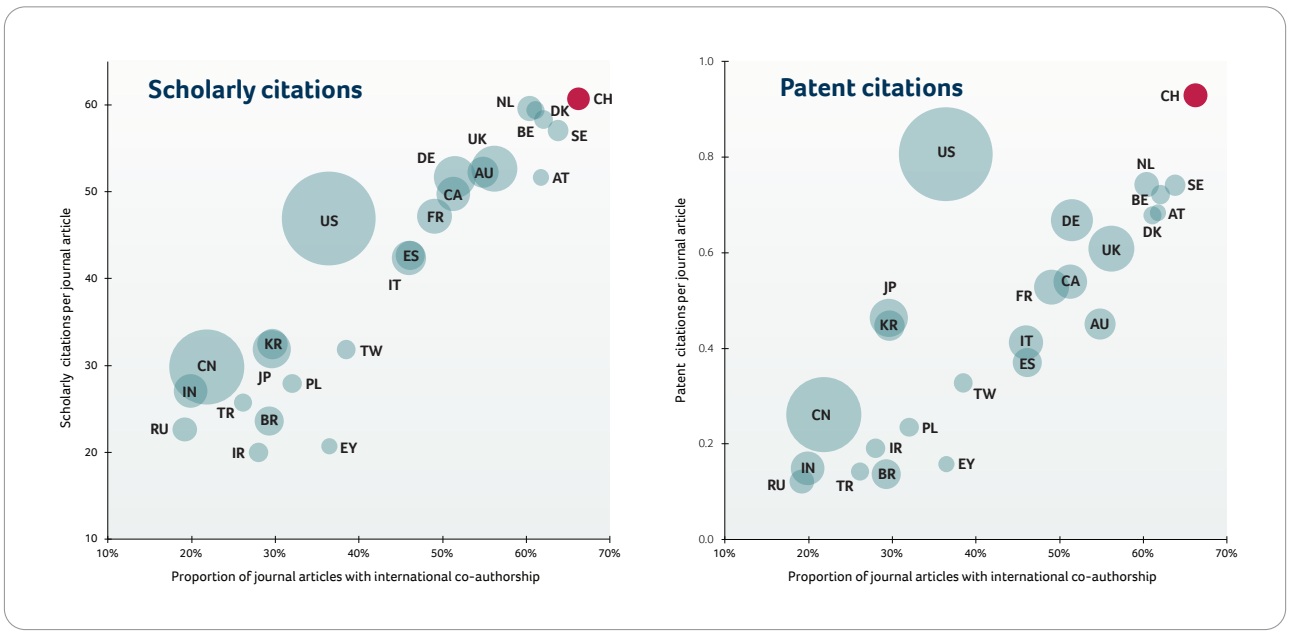


Figure 4: Swiss biotechnology papers lead in international collaboration and citations

Discussion and conclusions

What has been shown for patents in previous Swiss Biotech Reports is also true for scientific publications:

- For journal articles in the biotechnology sector the contribution from Swiss institutions is significantly higher than in other disciplines.
- Two thirds of these papers result from collaborations with international partners, which is the highest proportion among the top 25 countries of origin for biotechnology papers.
- Biotechnology papers from Swiss institutions receive the highest average number of citations, both from scholars and in patents.

Journal articles and patent applications in the biotechnology sector are very distinct with regard to authors and affiliations. Within the Swiss subset, more than 80% of the journal articles originate from universities and research institutes, and fewer than 20% involve authors from companies. In contrast, 95% of the patents are filed by companies, including 20% filed together with universities. fewer than 5% of the patents are filed by universities alone.

Despite these differences, the correlation between international collaboration and quality measured by citation frequency is strikingly similar for both journal articles and patents.

Although many other factors may contribute to the output quality, the degree of international collaboration appears to have a significant impact. The small size of Switzerland is probably a factor that encourages Swiss institutions and companies to seek international collaborations. However, access to international partners also requires proven scientific excellence. The reputation of Swiss research institutes means that they are welcomed as partners in prestigious international networks. In turn, the active participation in such networks enables Swiss institutions to continue to generate high quality output, and to further consolidate their position as excellent schools educating the next generation of professionals in biotechnology and other disciplines.

Methods

JOURNAL ARTICLES

The journal articles were retrieved from The Lens, using a comprehensive keyword concept targeting biotechnology. The keyword search was restricted to the text fields title, abstract, keyword, or field of study. The results were further restricted by filtering for the document type journal article, resulting in a pool of over 15 million biotechnology related journal articles.

To determine the accuracy of the collection, 100 articles out of the 5.4 million articles published between 2011 and 2020 were randomly sampled and individually reviewed. 94 of these 100 documents were related to biotechnology.

The country-specific analysis was performed using the filter Institution Country/Region. To determine the proportion of publications without contributions from other countries, the top 30 countries other than the selected country origin were excluded. This subset was then subtracted from the total for each country to obtain the complementary subset representing the journal articles generated by international collaboration.

PATENT DATA

Patents were captured by the established patent classification filter for biotechnology using the patent analysis tool PatentSight. The filter Origin of Inventor was used to identify the subset of patents invented in Switzerland.

In all earlier contributions to the Swiss Biotech Reports, numbers of patents were based on active patent families at a given time point. For the present study, however, the patent families are presented according to their year of filing, regardless of their legal status, in order to better match patents and journal articles.

DATA ANALYSIS

The data retrieved from the databases was transferred to Microsoft Excel for further analysis and graph generation.

INTERESTED IN WORKING WITH THE LENS?

The IP Academy of IPI offers an introduction workshop for the Lens.

https://www.ige.ch/en/services/ip-academy/workshops/ip-workshops-on-specific-topics

Faces of innovation

Laura Suter-Dick

Biotechnet | President

Sonia Thomson

Biotechnet | Communications

Switzerland excels in hands-on, practical training of its native talent through several educational institutions. Students attending universities of applied sciences (UAS), universities and university hospitals are keen to participate in international exchanges and bring an enriched perspective back to the organizations they later work for. Within Biotechnet, many of our scientific members have multinational backgrounds and study experiences. Meet a few of our experts who are pushing technological frontiers through their leadership of international projects and events.

The innovators

Biotechnet scientists make important contributions to international projects, including Horizon Europe, and increase the visibility of Swiss academic and commercial research. Participation in international projects advances Switzerland's scientific excellence, enriches our scientists, attracts foreign talents, and provides learning opportunities for students and early-career scientists.

Prof. Dr. Patrick Shahgaldian

FHNW

Project:
ONE EARTH

Biotechnet platform:
Bioresources

Accomplishments:

- Project focused on bio-based solutions for producing nutraceuticals, cosmetics, bioadhesives, fertilizers, and fish feeds using residual biomass of animal origin
- FHNW team developed a flow reactor based on monolithic and hierarchically structured silica, allowing controlled protein hydrolysis

International partners: 14 partners from 10 countries

Key drivers of success: Dynamic partnerships with project partners grounded in mutual trust and aiming for scientific innovation; working collaboratively to create solutions that benefit all stakeholders and society; striving to build long-term and sustainable relationships with European partners

Dr. Samantha Paoletti

CSEM

Project:
Sustronics

Biotechnet platform:
In Vitro Diagnostics

Accomplishments:

- CSEM team developed an easy-to-use, disposable, and sustainable point-of-care (PoC) device linked to a smartphone app, to assist in patient monitoring of glucose metabolism
- Prototype, including clean materials and processes, will be validated in 2025, leading to an established proof of concept for this promising technology

International partners: 46 partners from 11 countries

Key drivers of success: Multidisciplinary approach; miniaturization expertise; understanding each partner's role and each partner delivering on their part

Dr. Cristina Zivko

University of Bern

Project:
Center for Extracellular Vesicle Research

Biotechnet platform:
Stem cells and regenerative medicine

Accomplishments:

- Established a university platform for research on extracellular vesicles, including provision of expertise, required material and equipment

International partners: Center will help position Switzerland as an international leader in the field of extracellular vesicles

Key drivers of success: Strong scientific and technical expertise; state-of-the-art equipment; collaborative network; translational outlook

Dr. Carmen Jungo-Rheme

Biofactory Competence Centre

Project:
Upstream and downstream processing, aseptic methods and operator training

Biotechnet platform:
Biomanufacturing

Accomplishments:

- Offered more than 100 training days in 2024
- Developed a unique training course for operators in the pharmaceutical industry, a job for which there is high demand

International partners: Training programs enable national and international talents to work in biomanufacturing settings, fostering Switzerland's continued strength in this field

Key drivers of success: 300 m^2 purpose-built cleanrooms to simulate GMP environment; offering hands-on training with industry experts

Prof. Dr. Giuseppe Perale

USI - Università della Svizzera italiana

Project:
SpinoSave

Accomplishments:

- Preclinical proof of concept of a combined cell therapy to treat acute spinal cord injuries, using autologous stem and immunocompetent cells
- USI team optimized the entire system and confirmed mechanism of action
- SpinoSave was classified as an advanced therapeutic medicinal product (AMTP) and was granted the orphan designation by the European Medicines Agency and Swissmedic
- Team established a spin-off company

International partners: 8 partners from 3 countries

Key drivers of success: Multi-disciplinary teams focused on a clear clinical translational goal; complementary competences of internationally esteemed project partners; mutual trust and shared vision of making paralysis a thing of the past

Faces of innovation

The conveners

Each year, Biotechnet and its thematic platforms organize specialized scientific meetings where bright minds from across Switzerland and abroad convene to exchange on the latest topics in biotechnology.

Prof. Dr. Oya Tagit
FHNW

Event:
Biointerfaces International Conference 2024

Biotechnet platform:
Tissue engineering for drug development (TEDD)

Dr. Markus Rimann
ZHAW

Event:
Biointerfaces International Conference 2024

Biotechnet platform:
Tissue engineering for drug development (TEDD)

Accomplishments:

- Recruited renowned international keynote speakers to enrich Swiss knowledge
- Broadened event focus to include mRNA interfaces
- Enabled exchanges and discussions with 20 companies
- Organized panel discussion where startups shared their first-hand experience on the path to market access
- Deepened connections between Universities of Applied Sciences (UAS) and Federal Domain (ETH, EPFL, EMPA)

International participation: Speakers, sponsors and delegates from 19 countries

Key drivers of success: Diplomacy, interactive and friendly atmosphere, excellent keynote speakers, multidisciplinarity, only one track, not too big and not too small

Dr. Felix Kurth
CSEM

Event:
Single-cell omics 2024

Biotechnet platform:
Data science for life sciences

Prof. Dr. Abdullah Kahraman
FHNW

Event:
Single-cell omics 2024

Biotechnet platform:
Data science for life sciences

Accomplishments:

- Organized first event of its kind in Switzerland focused on the emerging field of single-cell omics
- Attracted groundbreaking keynote speaker to share the latest knowledge on the topic
- Sparked new collaborative projects between participants

International participation: Ben Hindson, Co-founder and CSO of 10x Genomics

Key drivers of success: A varied format combining a cutting-edge keynote speaker, paired presentations with local experts, and a company exhibition

Prof. Dr. Markus Seeger

University of Zürich

Event:
Indo-Swiss AMR Innovation Dialogue

Biotechnet platform:
Antibiotics

Accomplishments:

- Organized a delegation of senior Swiss AMR experts to visit India in 2023
- Will host a visit of Indian experts to Switzerland in 2025

International participation: 25 Indian AMR experts covering translational science, biotech companies, medical doctors, and governmental representatives

Key drivers of success: Sharing and harnessing knowledge between international experts to better prepare for the global AMR threat

Prof. Dr. Jack Rohrer

ZHAW

Event:
Summer School on Advanced Biotechnology

Biotechnet platform:
Training for Biotech

Accomplishments:

- Leads the organization of Biotechnet summer schools - 18 years and counting!
- Expands the summer school's reach by fostering partnerships with Ulysseus and others
- Creates opportunities for informal networking and building of international friendships

International participation: MCI Innsbruck, University of Palermo, Ulyseeus

Key drivers of success: Generating engagement through fun and relationships

Prof. Dr. Laura Suter-Dick

FHNW, Biotechnet

Sonia Thomson

Biotechnet

Event: Annual Meet-Up 2023, 2024, 2025

Biotechnet platform: All (Cross-platform)

Accomplishments:

Building bridges: Bringing the Biotechnet research community together around thematic platforms; engaging industrial partners through exchanges with SBA. Networking at the Biotechnet Meet-up once a year around hot topics (e.g. AI, sustainability, and aging)

International participation: International institutions, international summer schools, keynote speakers from abroad

Key drivers of success: Connecting the dots between people, projects and ideas; curiosity and creativity; client and audience focus; equity, diversity and inclusion

The Meet-Up 2025 brought together Biotechnet platforms, from left to right: Marco Rupprich (Bioresources), Micha Teale (Biomanufacturing), Markus Rimann (Tissue Engineering for Drug Development), Andreina Schöberlein (Stem Cells and Regenerative Medicine), Sonia Thomson (Communications), Laura Suter-Dick (President), Carine Poussin (Data Science), Loïc Burr (In Vitro Diagnostics), Katrin Hecht (Biocatalysis), Thomas Villiger (Biomanufacturing), and Markus Seeger (Antibiotics).

Small country, big accomplishments!

Switzerland consistently ranks among the world's leading innovators when it comes to new discoveries and their translation to industry. The secret to Swiss success lies in our ability to combine an industrious, bottom-up approach with an increasingly open mindset and the participation of top international talent in the knowledge economy. Biotechnet's members are proud to contribute to advances in innovation, both here and abroad. Contact us today to find out how we can support your project with applied R&D.

Biotechnology for a more sustainable global society

Benoît Dubuis

SATW | President

Hans-Peter Meyer

SATW | Scientific Advisory Board

Switzerland is a champion of innovation and one of the world's most advanced free-market economies, with a strong foundation in biotechnology and its application in the pharmaceutical sector. Switzerland's privileged position brings with it an obligation - to develop sustainable technological solutions for a less privileged global society. This can only be achieved through international alliances and cooperation.

In 2024, the chemical, pharmaceutical and life sciences industries contributed 52% to Switzerland's total foreign export trade of CHF 283 billion. With an export value of CHF 52 billion in 2024, biotech products from the immunologicals subsegment have become an important pillar of Swiss exports (see Export Statistics article, Page 14).

The combination of global industrial players such as Lonza, Novartis, Roche, Givaudan, or DSM-Firmenich, along with a thriving startup scene and a strong academic community with global powerhouses ETH Zurich and EPFL, makes the biotechnology and life sciences sector a cornerstone of the Swiss economy.

However, Switzerland's leading role in biotechnology also brings with it an obligation - to serve and develop sustainable (technological) solutions for the benefit of all. International alliances and cooperation are prerequisites for maintaining this privileged position.

Scientific methodology and evidence-based approach

The power of science to serve the public good lies in its objectivity and its ability to adapt and evolve based on facts, empirical data, and rigorous experimentation. As we continue to innovate and collaborate across borders, it is imperative that we maintain a steadfast focus on scientific integrity, ensuring that decisions and advancements are grounded in evidence and not influenced by external pressures or belief systems.

International collaborations have yielded superior results and we all benefit from an open dialog, sharing information and learning from experiments and diverse research approaches from all over the globe. This commitment is essential not only to preserve the credibility of scientific research but to ensure that our collective efforts are directed towards tangible and meaningful solutions to global challenges.

Exchange of best practices

International collaborations are the most effective way to promote the exchange of ideas and best practices. In a collaborative context, "what is essential is not to know, but to know who knows!" With rapid technological advances, assessing and predicting future trends has become a major challenge.[1]

Every country faces its own unique innovation challenges and successes, and a technology that works in one country may face specific challenges when applied in another. Through international collaboration, it is possible to identify these challenges early on and adjust evaluation strategies accordingly. SATW is aligned with this dynamic, relying on EuroCase and CAETS in addition to numerous bilateral collaborations, including deepening sovereignty themes with ACATEC (Germany) and healthy aging with CAE (China).

Anticipating global trends

In an increasingly interconnected world, technologies do not develop in isolation. Trends emerging in one country can quickly influence other regions. The need to switch to sustainable raw materials and corresponding value chains for example, are cross-border shifts. By working with foreign partners, we have the opportunity to stay informed about these dynamics and assess their potential impact at a local level.

International partnerships enable proactive monitoring of technology, identifying innovations likely to influence entire sectors before they become standards. With access to research and case studies from various countries, we can better understand the forces shaping the technological future.

Defossilization and sustainability

The Swiss electorate approved the Climate and Innovation Act in summer 2023, aiming for climate neutrality by 2050. Defossilization represents a mammoth task and economic challenge, best overcome through cooperation in larger networks. At the same time, it presents opportunities for innovative companies developing alternatives to fossil resources and unsustainable manufacturing methods.

In the energy sector, solutions exist to replace fossil fuels, such as switching to renewable energy and electrification. However, for the chemical industry, it is still unclear how fossil raw materials can be replaced. For this reason, SATW is striving to gain an overview of the effects of defossilization on the chemical industry's value chains and identify potential actions for relevant players.

Following an initial conference in October 2024, SATW plans a second forum in early 2025 in which industry representatives, associations, administrations, and researchers can exchange experiences and form an overall picture of key areas of future research.[2]

Opportunities

Industrial or white biotechnology, driven by sustainability, is the next potential economic sector, with biotechnological options currently underutilized. New value chains and microbial production methods are emerging, based on rational metabolic and cellular engineering, culminating in synthetic microbial life.

However, two requirements must be met to realize this potential:

1. The synergies and expertise of successful red biotechnology must be leveraged.
2. There must be cooperation and alliances throughout the value chain.

Cellular agriculture and cell-based meat, fish, or dairy products are opportunities at the intersection of red and white biotechnology.

Biotechnology for a more sustainable global society

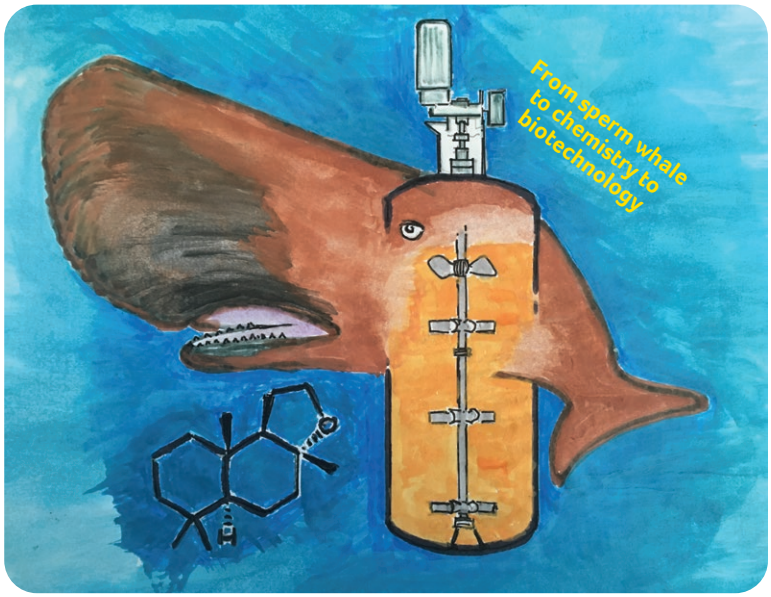
Blockchain as a facilitator

With the world facing simultaneous challenges from climate change, the need to defossilize and dwindling resources, we must become creative and innovative beyond the laboratory.

We must also rethink how we collaborate. The traditional business model requires innovation, methods, process data, and product data to remain confidential unless patented. However, this model presents a significant disadvantage. It is safe to assume that companies, especially large global enterprises, hold considerable "idle know-how" - knowledge developed for a specific product, process, or method, but never commercialized due to strategic changes, market failure, or interrupted R&D.

Blockchain, an easily scalable Decentralized Autonomous Organization (DAO), can facilitate secure peer-to-peer knowledge transfer, where transactions are encrypted and maintained on a blockchain[3] ("what is essential is not to know, but to know who knows!"). Blockchain allows automation and execution of these steps, such as in data-sharing.

Knowledge and know-how represent a company's intellectual capital but, like financial capital, it must be invested, not merely stored. Like money, intellectual property is ideally distributed and shared by many parties. SATW members continue to explore the development and implementation of blockchain tools.



In conclusion

As many countries are turning to nationalist policies, international collaborations serve as bridges that, beyond knowledge, are powerful vectors of cooperation, strengthening the resilience and adaptability of our organizations. In an uncertain world, the ability to adapt quickly to change is a precious asset. By diversifying knowledge sources and establishing cooperative networks, we learn to navigate complex environments more effectively and benefit from the trust these collaborations build - a trust that could be crucial in the event of another major crisis.

References

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Swissmedic's transnational ties strengthen Switzerland's biotech engagement

Jörg Schläpfer

Swissmedic | Head of Staff and External Relations

The Swiss biotech industry can rely on its independent, competent and internationally networked agency for therapeutic products. Collaboration with other national regulators strengthens Switzerland's position as an innovative research and development location, and enables it to play a leading role in shaping global standards.

International networks are essential to the continued success of Swissmedic, the Swiss Agency for Therapeutic Products. Medicinal products and medical devices are developed and produced on a global basis, and new technologies and findings must be integrated into the regulatory environment. The increasing complexity of products and supply chains, as well as cost pressure, make it difficult for even large therapeutic products authorities to fulfil their mandate on their own, and cross-border exchange is crucial to ensure patient safety in line with the latest scientific findings. For this reason, Swissmedic works closely with other regulatory authorities and is actively expanding partnerships.

For a small authority such as Swissmedic, a clear strategic approach to international collaboration is crucial in order to seize opportunities and successfully overcome challenges. Swissmedic's international cooperation is based on three pillars: harmonization of standards and procedures; information exchange and collaboration; capacity building and technical support. This commitment not only promotes public health by giving patients rapid access to innovative therapies and medical services, but also ensures efficiency and transparency in the development and authorization of therapeutic products – worldwide.

Helping to develop and unify global standards

Dozens of different vernaculars, imposed as divine punishment, led to the Tower of Babel failing due to a lack of mutual understanding. There were a similar number of "languages" involved in the authorization of medicinal products, but the importance of harmonization was recognized at an early stage. In 1990, regulatory authorities from Europe, the US and Japan, together with the pharmaceutical industry, set themselves a common goal of harmonizing the technical requirements for the authorization of medicinal products. The resulting initiative, the International Council on Harmonisation (ICH) based in Geneva, is a success story. The Common Technical Document (CTD/eCTD) has established a global standard that eliminates the former need for often tedious restructuring of authorization dossiers for different countries. The result: significantly less administrative work for researching companies.

As a Standing Regulatory Member of ICH and currently also as Vice-Chair of the ICH Assembly, Swissmedic contributes to the further development of global standards for the evaluation and authorization of medicinal products. This includes, for example, guidelines for conducting clinical studies (Good Clinical Practice, GCP), regulations for the manufacture of medicinal products (Good Manufacturing Practice, GMP) and authorization processes.

Terminology that was also developed by the ICH, the Medical Dictionary for Regulatory Activities (MedDRA), even allows communication in a "common language".

Working with partner authorities

International cooperation in the regulation of therapeutic products is conducted both bilaterally between individual authorities and multilaterally on various platforms.[1] These are either initiatives or private-law associations supported by several national therapeutic product authorities or international organizations.

Cooperation is an ongoing process at different levels. The first step is to build trust in the way the partners work, through the exchange of information and experience. In a next step, various forms of work sharing can be implemented, for example, by relying on the assessment results of partner authorities (see Figure 1).

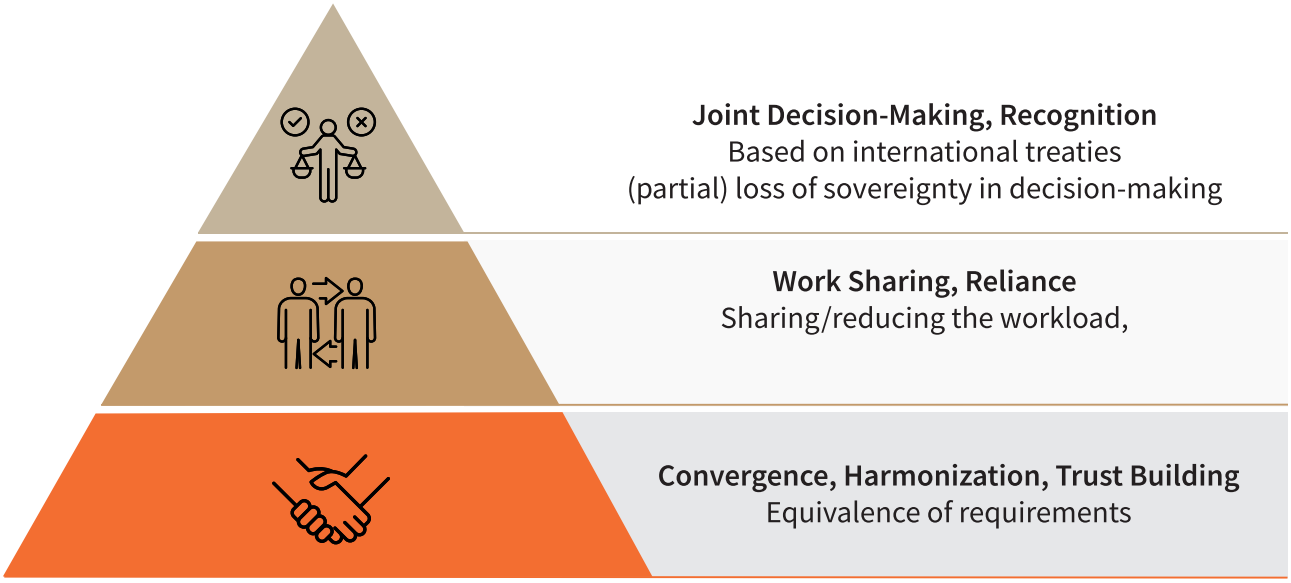


Figure 1: Levels of international collaboration
Swissmedic is involved in relevant bilateral collaborations and international networks on this basis

The interaction works like an orchestra: each authority contributes its expertise – comparable to a family of instruments. As part of work sharing, each authority takes on specific tasks, such as checking safety data or quality aspects. The joint "harmonious overall performance" results in benefit-risk decisions that can be accepted or rejected by the individual authorities.

A successful example of this is the Access Consortium,[2] a partnership between the therapeutic products agencies from Australia, Canada, Singapore, Switzerland, and the United Kingdom, which covers around 145 million people. The aim of the consortium is to speed up authorizations for medicinal products through coordinated assessment.

Project Orbis,[3] a program initiated by the US FDA, also reflects the strength of multilateral cooperation. In this project, authorization applications for new cancer therapies are assessed in parallel by several therapeutic products agencies, in order to give patients transnational access to innovative cancer therapies as quickly as possible. The FDA oversees overall coordination, but each country involved remains completely independent as regards the final marketing authorization decision.

The optimized authorization processes for innovative medicinal products promote patient safety and are always carried out based on evidence needed for a risk-benefit assessment. This is one of the reasons why, in rare cases, the authorities involved may reach different decisions. The positive experiences with parallel review processes could help reduce the submission gap[4] in other therapeutic areas outside oncology, thus enabling patients in Switzerland to gain faster access to innovative therapies.

These examples show how multilateral collaboration not only promotes the exchange of information and experience but also offers concrete solutions for efficiently managing the complexity of therapeutic product regulation.

Swissmedic's transnational ties strengthen Switzerland's biotech engagement

Development cooperation: capacity building for sustainable health promotion

As part of the strategic Regulatory Systems Strengthening (RSS) program of the World Health Organization (WHO), Swissmedic supports countries with less developed regulatory systems through training and regulatory capacity building.[5] This strengthens drug safety globally and promotes the harmonization of regulatory practices. In addition, Swissmedic has developed a procedure for scientific advice and Marketing Authorisation for Global Health Products (MAGHP procedure).[6] This aims to speed up the authorization and market entry of high-quality, vital medicinal products for people in low-income countries, thereby contributing to improving global healthcare. The focus is on sub-Saharan Africa and on medicinal products for diseases that disproportionately affect this region. However, other countries or regions can also be considered.

The procedure provides a clear framework for the exchange of scientific and regulatory information between manufacturers and the regulatory authority. Pharmaceutical companies and manufacturers can seek scientific advice from Swissmedic at an early stage to ensure that their product meets all regulatory requirements for subsequent authorization in Switzerland and with the regulators involved. The authorization procedures offered comply with national and international standards.

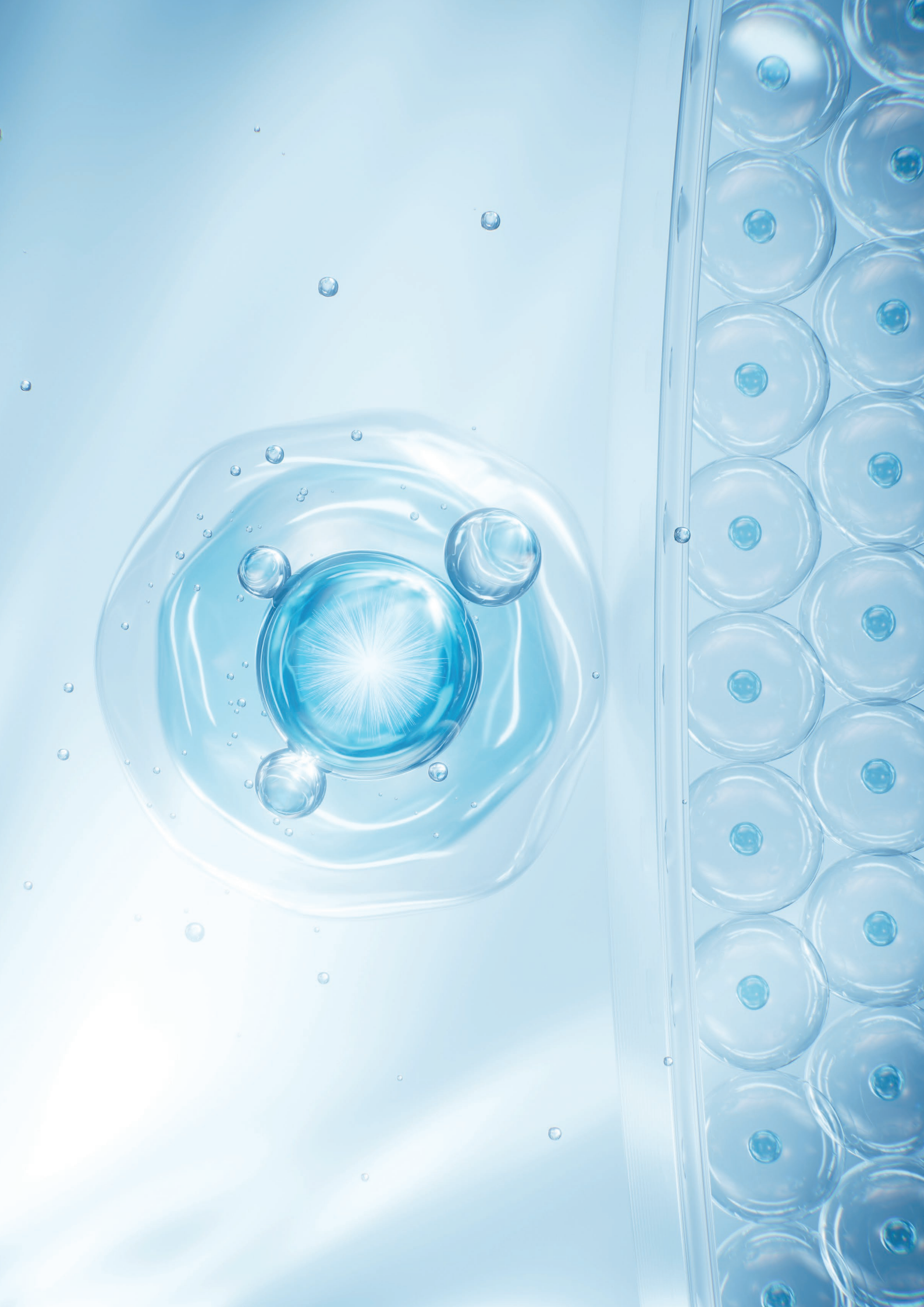
National regulatory authorities are invited to actively participate in the evaluation with the aim of building up their own capacities and trust in the process. The first medicinal product authorized under the MAGHP procedure was an injectable medicine to prevent severe bleeding after childbirth. This approval, granted in May 2020, involved collaboration with National Regulatory Authorities (NRAs) from Uganda, Kenya, Tanzania (mainland and Zanzibar), South Sudan, Nigeria, the Democratic Republic of Congo, and Ethiopia.

Swissmedic is committed to international cooperation

Swissmedic is internationally renowned, well-networked and regarded as a competent, reliable partner. In this regard, the agency is guided by international standards. The ongoing harmonization of content-related and technical authorization requirements prevents duplications and speeds up the authorization process for high-quality, safe and effective medicinal products. This greatly benefits both patients and companies, ensuring that Switzerland remains an exceptionally attractive location for biotech companies.

References

1 www.swissmedic.ch/international
2 www.swissmedic.ch/access-consortium
3 www.swissmedic.ch/orbis
4 Difference between the submission dates of applications to different authorities, in this case the time difference between the submission of an application for authorization to the reference authorities FDA/EMA and Swissmedic.
5 In 2023, Swissmedic was the first national regulatory authority to be classified as operating at Maturity Level 4 on the WHO Benchmarking List (www.who.int/initiatives/who-listed-authority-reg-authorities)
6 www.swissmedic.ch/maghp



Swiss biotech: Building lasting and innovative alliances with global impact

Michael Altorfer
Swiss Biotech Association | CEO

Marta Gehring
Swiss Biotech Association | Special projects

In the dynamic landscape of biotechnology, Switzerland stands out not only for the power of its innovation but also for its collaborative spirit. Despite the country accounting for just 0.5% of the world's GDP and 0.1% of its population, Switzerland's life sciences ecosystem punches well above its weight. Swiss biotech thrives by forging alliances that harmonize efforts, amplify outcomes, and strengthen its global relevance.

The power of alliances

Switzerland's small geographic area and location in the heart of Europe is an advantage in that it makes an international outlook obligatory. For Switzerland, adopting a global perspective is not just beneficial - it is essential.

Players in the Swiss biotech ecosystem recognize that they cannot afford to 'go it alone' and that collaboration is key to achieving greater impact. By aligning practices, harmonizing processes, and sharing expertise or resources, alliances accelerate progress. They may help to establish international standards, facilitate access to larger markets, broaden distribution networks, or share best practices with wider groups of researchers and collaborators. Such alliances foster synergy, boosting both effectiveness and productivity to the benefit of all the parties involved, and ultimately enable innovative products and business solutions to be available to patients and global consumers more rapidly and on a global scale.

Part of the success of Swiss academic institutions, public-private partnerships, and biotech companies can be directly attributed to their proactive engagement with international partners to build bilateral and multi-lateral alliances. Public agencies can also play a crucial role by fostering alliances that help accelerate key processes, harmonize and simplify international regulations, and enable them to shape and develop international best practices.

Take, for example, the **Access Consortium**, a regulatory alliance forged by Switzerland, Australia, Canada, the UK, and Singapore to enhance regulatory alignment, harmonizing the approval process, accelerating drug and medical device approvals, and improving patient access to innovative treatments across these countries (see Swissmedic article, Page 30).

While collaboration between regulatory bodies helps to simplify and accelerate the approval process and thereby support a more efficient and predictable drug development, the partners of the international grant network **Eureka/Globalstars** focus on fostering international research collaboration and providing an increasingly international grant network of non-dilutive funds. What started as a European initiative has developed into a worldwide alliance, supported by 47 countries plus the European Commission.

Collaboration across the value chain

The formation of alliances is a cornerstone of Swiss biotech success across the entire value chain. Switzerland has the resources to be a strong partner in all aspects of life science:

- research collaborations
- public/private partnerships
- clinical trials
- manufacturing & quality control
- regulatory approval
- distribution and storage
- education and training (e.g. of health professionals)
- establishing financial funding models, including innovative healthcare insurance systems

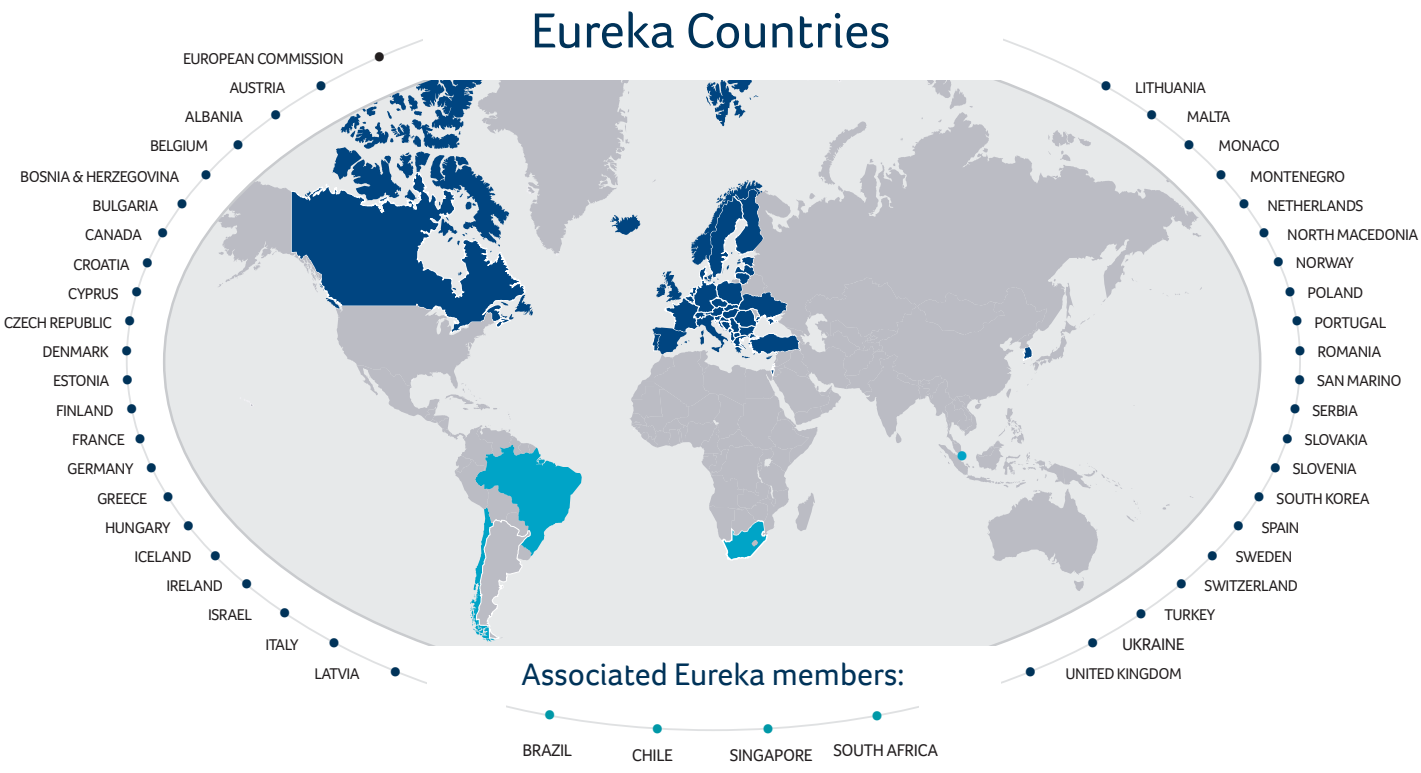
Switzerland's focus on quality and global applicability ensures that these alliances have a long-term perspective, and are built on trust and reliability. Bilateral initiatives can often expand into multilateral alliances, provided that they offer collective benefit and meet the joint objectives of all alliance partnes. From academic institutions and grant networks to hospital chains and manufacturing hubs, partnerships drive innovation and operational excellence. Switzerland's public-private partnerships exemplify successful collaboration, bridging academic excellence with research pragmatism. Institutions like the **Wyss Center** and the **Institute of Molecular and Clinical Ophthalmology Basel (IOB)** have fostered groundbreaking advances while uniting diverse players under shared goals.

For instance, the **Wyss Center** is part of a five-year, USD 36 million international consortium funded by the Defense Advanced Research Projects Agency (DARPA) under the Bridging the Gap Plus Program. This initiative brings together universities, biomedical startups, and nonprofit organizations to develop therapies for spinal cord injuries, improving long-term recovery.

Meanwhile, **IOB** maintains strong international collaborations with leading institutions such as the Chan Zuckerberg Initiative, Columbia University, and the Danish Research Institute of Translational Neuroscience (DANDRITE), reinforcing Switzerland's role as a hub for global scientific partnerships.

Lonza's alliances with preferred subcontractors is an example of how collaborations help to establish robust and resilient supply chains. Hospital chains, such as **Hirslanden Group**, underscore the integrative approach, blending clinical expertise with membership of global private hospital groups to deliver superior healthcare outcomes.

By fostering a culture of innovation and shared international knowledge, Swiss players consistently push the boundaries of what alliances can achieve.



Swiss biotech: Building lasting and innovative alliances with global impact

Global relevance through collaboration

In an era when isolationist policies and "me first" approaches have gained traction, Switzerland's collaborative model offers a compelling counterproposal. International alignment is a hallmark of the Swiss approach, enabling the country to increase its relevance, attractiveness, and know-how. By working together, Swiss institutions amplify their influence while maintaining a focus on mutual benefits.

Such international alliances allow partners to learn from each other, to joinly overcome hurdles, and to shape a solution, product or process that is more effective, efficient, and more broadly applicable than the contributions of each individual alliance partner. As much as international collaboration plays a key role in research and development projects, international alliances enable all partners to shape and develop solutions that improve the framework conditions, offer more and improved business opportunities, and expand personal networks.

The Swiss commitment to quality plays a pivotal role in this process. Whether building supply chains or forging international partnerships, Swiss partners seek to establish alliances that are robust and reliable. They create value not by imposing political pressure but by fostering innovation and shared success. And in the area of life sciences or industrial biotech, they will typically aspire to be applicable globally or to have a strong impact well beyond the Swiss borders.

An attractive partner

Switzerland's collaborative approach makes it an ideal partner for international stakeholders. Its alliances are not about highlighting successes or excluding non-paricipating partners but about creating meaningful impact. This humble yet effective approach enhances Switzerland's reputation as a trusted and attractive partner in the global life sciences arena.

Four out of five biotech patents filed in Switzerland are established in international collaboration. 70% of the Swiss R&D talent pool, in academic institutions and industrial partners alike, are non-Swiss citizens. As Switzerland offers a very attractive, stable and globally connected R&D hub, many international biotech leaders are attracted to work in Switzerland or with Swiss partners.

The **Botnar Institute of Immune Engineering** was recently founded in Basel and is a good example of an attractive new partner that will seek to establish international collaborations and alliances to engage in translational research collaborations with industrial and academic partners around the world. Funding by the Botnar foundation of over USD 1 billion, allows a long-term perspective. It mean that the the institute can engage with international partners to attract additional funding and top talent, and can shape a project portfolio that has the potential to develop solutions to meet medical needs around the globe.

An open economy

Each year, the Heritage Foundation, a conservative think tank in Washington, D.C., publishes an **index measuring economic freedom worldwide.** Switzerland consistently ranks among the top three, and was placed second in 2024 alongside Singapore and Ireland. The index evaluates 12 factors across four categories: Rule of Law, Government Size (including tax burden and fiscal health), Regulatory Efficiency, and Open Markets (including trade, investment, and financial freedom). This high ranking reflects Switzerland's obligatory international outlook and commitment to fostering impactful global partnerships.

In a time when many countries seek to "reshore" manufacturing, establish their own supply chains and invest tremendous amounts of tax payer funding in "me first" industrial policies, Switzerland fosters bilateral and multilateral collaborations and alliances. Rather than expanding the role of the government or engaging directly in helping to fund potentially high risk private organizations, Switzerland trusts that industry leaders, entrepreneurs and startup management teams are best positioned to understand which trends, market needs, and global challenges offer the best business opportunities and what level of risk is acceptable. So rather than investing in the protection or active expansion of selected industries, Switzerland continues to invest in the formation of new talent and provides funding for non-dilutive grants to public-private partnerships.

Summary

In conclusion, Switzerland's biotech ecosystem demonstrates how a small country can achieve significant global impact through collaboration. By building alliances that prioritize quality, reliability, and mutual benefit, Switzerland not only strengthens its position but also sets a powerful example for the international community. Such engagements are not limited to the development of biopharma products. Industrial biotech applications allow to develop valuable solutions for the bioeconomy (see swissindustries article, Page 38), and alliances between zoos help protect biodiversity (see guest editorial, Page 5). In a world increasingly divided, the Swiss model reminds us of the unparalleled potential of working together.

Working together towards a more innovation-friendly European biotech framework

Jan Lucht

scienceindustries | Head Biotechnology

Biotechnology applications are expanding globally into many areas beyond the pharmaceutical sector. A growing range of products meet consumer demands while contributing to sustainability and climate protection. However, the current European authorization process for these innovative products is unnecessarily burdensome and limits market access. Leading European business organizations have come together in the European Biosolutions Coalition to change this.

The Life Sciences and Biotechnology sector is a central pillar for the Swiss economy. Healthcare products, including therapeutic proteins and vaccines, comprise the most important export category. However, food and feed additives, flavors and fragrances also play important roles (see Swiss Exports article, Page 14), and applications of biotechnology are rapidly expanding into different fields.

Well over 90% of scienceindustries' member companies' sales are generated abroad. For this reason, favorable market conditions in export markets are of key importance to the Swiss life sciences industry.

Inspired by nature: biosolutions

Biological industrial solutions from outside the pharmaceutical sector - biosolutions for short - make use of nature's tools such as enzymes, microorganisms and fermentation, often enhanced by modern biotechnology, to produce goods and services. Applications include bio-based alternatives to fossil-based materials, food and feed ingredients, alternative proteins, biological crop protection products and efficient recycling technologies.

Biosolutions meet consumer demands and have huge potential for climate and resource protection, sustainability, innovation and competitiveness. Scaling up the implementation of existing biosolution technologies could make a significant contribution to achieving the goal of net-zero greenhouse gas emissions. At the same time, more efficient food production could support feeding the growing global population while saving valuable agricultural land and preserving limited natural resources and biodiversity. Waste and environmental impact could be minimized, and bio-based supply chains could contribute to a circular, more sustainable economy and the creation of new jobs. Unfortunately, the regulatory environment for novel biosolutions often delays or hinders the realization of their potential in Europe.

A nature-based biofungicide

Optimizing the protection of crops against diseases to ensure yields and product quality requires a broad toolbox. Increasingly, nature-based biocontrol agents are playing a key role as part of an integrated pest management strategy. In collaboration, Switzerland-based company Syngenta developed and is distributing the biofungicide TAEGRO® which consists of endospores from a specific bacterial strain that are activated when mixed with water. TAEGRO's modes of action present a remarkably low risk of resistance development and, when used together with conventional products, it increases efficacy by 20% in most crops.

Bio-based TAEGRO is harmless for beneficial insects, pollinators and humans, and ensures healthy yields while reducing chemical usage. However, as the approval processes in Europe are focused on conventional chemical plant protection products, it took eight years for TAEGRO to enter European markets, whereas registration in other key markets typically takes two to three years.

Bio-based human milk oligosaccharides

Human milk oligosaccharides (HMOs) are a mixture of complex sugar molecules that are the third most abundant component of breast milk. They contribute to infant development, and to the establishment of a healthy gut microbiome and a resilient immune system. In cases when breastfeeding is not possible or no longer desired, HMOs can be added to infant formula to make it as similar as possible to human milk. There is no alternative natural source for HMOs, and chemical synthesis is complex and expensive.

The Swiss-Dutch company, dsm-firmenich, uses precision fermentation, a biotechnological process with metabolically adapted microorganisms and renewable feedstocks, to produce HMOs in an affordable and more sustainable way on an industrial scale. The "novel food" authorization process for innovative foods in Europe is very complex and can take up to 3 to 5 years – much longer than in most other world regions. Additionally, the regulations for foods produced using modern biotechnology can be subject to varying interpretations, which can complicate market access and sales.

Difficult regulatory environment for biosolutions in Europe

As European regulatory processes frequently operate within outdated frameworks that are not adapted to innovative production technologies, obtaining product approvals is often a time-consuming process that is much slower than in other regions of the world. In addition, there are often high bureaucratic hurdles to overcome.

This is particularly problematic for smaller companies with limited resources. In some cases, promising European inventions from outside the pharmaceutical sector are therefore first brought to market in regions with more proportionate and more innovation-friendly regulatory approval processes. Europe loses out on the commercial and competitive potential of these products, their availability to consumers here and, last but not least, the sustainability benefits they offer.

Power of alliances: the European Biosolutions Coalition

In order to strengthen Europe's sustainability, resilience and competitiveness by promoting better access to biosolutions for European customers, in October 2023 five leading European business organizations joined forces to form the European Biosolutions Alliance (www.eubiocoalition.eu). Switzerland was one of the founding members and is represented by the umbrella business organization, economiesuisse. It works closely with scienceindustries, the Swiss association of the chemical, pharmaceutical and life sciences industries. By the end of 2024, the coalition had grown to 11 European business organizations.

Europe has to speed up the establishment of new frameworks tailored to biosolutions

The European Biosolutions Coalition has been established to support the development of enabling framework conditions for biosolutions in Europe. This includes the removal of legislative barriers and outdated regulations that hinder their potential, and the streamlining of the authorization process for biosolutions in the EU. Europe already boasts an excellent R&D ecosystem and a host of innovative companies from the biotechnology and biomanufacturing field with many promising biosolutions – now is the time to facilitate their introduction in European markets to reap their economic and environmental benefits here. The relevance of biosolutions for Europe's competitiveness and sustainability is illustrated by a showcase collection of biosolutions from different European countries, including Switzerland.

The development of new European policy frameworks, such as the Biotech Act announced by European Commission President Ursula von der Leyen in 2024 and expected to be finalized in 2026, offers significant opportunities. By developing key policy objectives and working with stakeholders including European policy makers and regulatory authorities, the European Biosolutions Coalition strives for a bold, cross-sectoral Biotech Act. In this, they closely collaborate with other leading industry associations such as EuropaBio. For Switzerland, the powerful international alliance with the European Biosolutions Coalition offers the chance to support favorable conditions in a key export market, but also to use positive developments in other European countries as a blueprint to improve the framework conditions for innovative biosolutions at home.

Building the future of healthcare: Switzerland's key role in facilitating Johnson & Johnson's global alliances

Sirpa Tsimal

Switzerland Global Enterprise | Director Investment Promotion

Switzerland Global Enterprise's Sirpa Tsimal talks to Leila Schwery and Michael Hübner of Johnson & Johnson about the company's commitment to fostering global partnerships, the evolution of its manufacturing and supply chain strategies, and the critical role Switzerland plays in shaping its global capabilities.

Could you briefly outline your core focus areas and how they shape the company's global operations?

Leila Schwery: Johnson & Johnson has been present in Switzerland since 1959, when the company acquired Cilag AG in Schaffhausen. Today we are one of the largest US employers in the country, with operations at nine sites in seven cantons.

Globally, Johnson & Johnson Innovative Medicine plans to advance more than 70 novel therapy and product expansion filings or launches by the end of the decade. These innovations are in important areas such as oncology, immunology and neuroscience.

We are entering a new era of growth; as our portfolio is evolving, our pipeline is accelerating to deliver life-changing medicines to patients, and we need an efficient and reliable supply chain to enable our future growth. Our manufacturing site in Schaffhausen plays a critical role delivering medicines to patients around the world.

What are the defining features of your global manufacturing and supply chain network, particularly in addressing challenges like sustainability, digitalization, and geopolitical disruptions?

Leila Schwery: We operate in a VUCA environment (Volatile, Uncertain, Complex, Ambiguous), which poses many challenges. At the same time, medical science is advancing at an unprecedented rate, leading to increasingly complex treatment modalities, processes and supply chains. In this context, we must constantly evolve to increase agility and reliability and accelerate innovation.

As the world's largest, most diversified healthcare products company, we aim to advance innovation for the benefit of all patients. Our business strategy considers geopolitical risks to enhance our ability to respond to any number of changing factors. We deploy business continuity plans that maintain critical inventory, leverage partnerships to support preparedness, and maintain geographic diversity.

Johnson & Johnson's climate goals include sourcing 100% renewable electricity by the end of 2025 and reducing emissions across our global operations, while also working with our suppliers on their own decarbonization efforts.

With the 2025 Swiss Biotech Report focusing on "The Power of International Alliances", how do you envision the company's role in fostering cross-border collaborations to drive the future of life sciences?

Leila Schwery: The life sciences sector in Switzerland and the EU is in global competition with other regions that are investing heavily in healthcare innovation, and Europe is increasingly falling behind the US and Asia-Pacific in terms of total investment. In view of this development, we believe that the life sciences sector must be at the center of all future initiatives to increase industrial competitiveness in Europe, across all national borders.

A strong life sciences ecosystem is crucial for Switzerland and Europe to meet the needs of patients, doctors and nursing staff. We need to boost our economies to create jobs and new opportunities. This requires strategic investments in research and innovation, but also the promotion of advanced manufacturing, the active use of data and artificial intelligence, the promotion of public-private partnerships, and strengthening of the sustainability and resilience of healthcare systems.

Can you share an example of a successful alliance or collaboration in Switzerland that has had a significant impact on the company's global capabilities?

Leila Schwery: There are indeed various examples as we see Switzerland, with its extraordinary competitiveness in academia and industry, as a key player in shaping the future of pharmaceutical manufacturing. It is probably best if I outline our approach in general, grouped into three buckets:

1. Collaborations with academia:

We collaborate with world-class institutions like ETH and HSG, e.g. as members of the ETHZ-HSG Manufacturing Alliance, which aims to research the most critical operational topics and long-term challenges facing its members. This will not only advance the manufacturing field but also deliver meaningful benefits to patients and society as a whole.

2. Collaborations with Swiss startups

With one of our external partners we are exploring how to make cutting-edge AI techniques part of our process monitoring and root cause investigation. Using algorithms to establish significant causal relationships between inputs and things like product quality attributes, our aim is to reach a situation where every single process is accurately modelled.

As a member of the roundtable of the Swiss startup association we meet new startups and can provide input regarding the needs in our industry. The main benefit of these interactions is that they allow us to scout, import and test new technologies. In a world of hype, we as scientists try to pick only what really drives value.

3. Collaborations with Swiss Big Industry

We work with various Swiss CDMOs to address the growth of our portfolio. External partners are complementary to our own manufacturing sites. Batches produced by Swiss CDMOs supply our product worldwide.

Leila Schwery

Vice President, Manufacturing & Technical Operations

Leila Schwery leads the manufacturing functions for Johnson & Johnson Innovative Medicine which includes the internal and external manufacturing network and the technical operations (Manufacturing Science, Engineering and Data Management).

Michael Hübner

Director, Early Innovation Partnering, Switzerland

Michael Hübner is the Country Lead in Switzerland for Early Innovation Partnering at Johnson & Johnson. He heads the Innovation Hub Switzerland in Basel, and he is a member of the Johnson & Johnson Switzerland Leadership Team.

Building the future of healthcare: Switzerland's key role in facilitating Johnson & Johnson's global alliances

Shifting focus to innovation, could you describe the key elements of your external innovation group and the place it has within the global organization?

Michael Hübner: Johnson & Johnson's external innovation group is committed to transforming health outcomes for patients by finding and supporting the most promising early-stage innovations, wherever they originate. We are strategically embedded in key innovation hubs worldwide through Innovation Centers in London, Boston, San Francisco, and Shanghai, enabling us to connect entrepreneurs, scientists, and emerging companies with our global network of expertise, insights, and resources.

Our approach encompasses our external innovation collaboration and partnering group, our global incubator network (JLABS), and our corporate venture capital organization (JJDC), making us a partner of choice across biotech and academia for those seeking to bring their innovations to patients, according to early-stage healthcare innovators at Inpart's 2023 and 2024 Biotech Partnering surveys.

Innovation requires thinking differently and pushing the boundaries of traditional healthcare. Whether it is enabling earlier detection and treatment of diseases or advancing novel therapies and surgical procedures, we are passionate about leveraging science and technology to create transformative solutions and patient outcomes. With over 137 years of experience in improving human health, we remain all-in for the journey with our partners to redefine the future of healthcare for patients around the globe.

What strategies does Johnson & Johnson's external innovation group employ to build and maintain strong global partnerships and what specific advantages can Switzerland offer?

Michael Hübner: Our strategy for building and maintaining successful global partnerships and collaborations is rooted in four essential elements. First, we prioritize the transformative potential of the idea or asset and its ability to address significant unmet medical needs. Second, we evaluate the quality and experience of the science and leadership team, as we believe strong expertise is critical for success. Third, we ensure that deal terms are fair and mutually beneficial, creating a foundation of trust and shared goals. Lastly, opportunities are aligned with our corporate strategic priorities and internal capabilities. Importantly, we also value the representation of scientific teams and advisory boards and recognize the considerable value this brings to collaborations, partnerships and transformational innovation.

By integrating these strategies, we aim to not only build strong, lasting collaborations and partnerships but to create an environment where new ventures can flourish, transforming healthcare and improving outcomes for patients.

Switzerland is often viewed as a key hub for life sciences and biotech. How does its ecosystem contribute to your innovation efforts globally?

Michael Hübner: Switzerland is a global leader in sourcing innovation, and in 2024, we became the largest pharma investor in the country.[1] This was driven by key transactions, including the USD1.25 billion acquisition of Yellow Jersey Therapeutics – a demerged subsidiary of Numab Therapeutics – and investments by our corporate venture capital organization, JJDC, in other Swiss-based companies. Additionally, several promising startups joined JLABS EMEA, where we collaborate closely with entrepreneurs, providing expertise and resources to help accelerate their innovations.

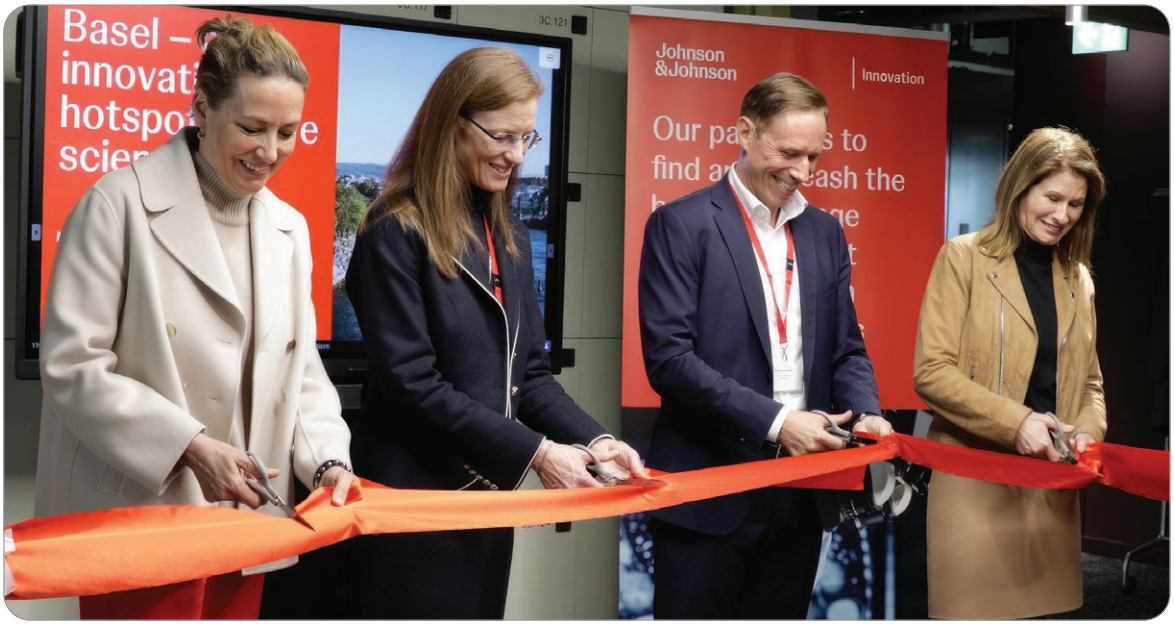
To further strengthen our engagement with Switzerland's vibrant innovation ecosystem, we opened Johnson & Johnson's external innovation hub in Switzerland in April 2024. Located within our Basel Campus offices, the hub serves as a critical platform for fostering connections with external collaborators and partners and promoting innovation across Switzerland and neighboring countries. This initiative underscores our commitment to nurturing local innovation while advancing global health solutions.

[1] **Source:** Dealforma, Public records. Data based on direct investment into a Swiss entity.

Can you share an example of a successful global alliance led by Johnson & Johnson's external innovation group and the impact it had on healthcare innovation?

Michael Hübner: Many of our over 5'600 employees and contractors across our nine Swiss sites joined through collaborations, partnerships and acquisitions with local companies, reflecting our strong commitment to fostering innovation in Switzerland. One notable example is our acquisition of Actelion in 2017, which brought transformative medicines for pulmonary hypertension to patients worldwide. This successful alliance has had a profound impact on healthcare by addressing a critical unmet medical need and expanding patient access.

Our long-standing partnership with Cilag in Schaffhausen, dating back to 1959, and our MedTech business with DePuy Synthes, acquired in 2012, further highlight our history of successful collaborations in Switzerland. Most recently, and as previously mentioned, we entered into a transaction with Yellow Jersey Therapeutics, acquiring this company with a promising asset for atopic dermatitis. This innovative therapy is now being developed in late-stage clinical trials, reinforcing our commitment to advancing treatments that improve patients' lives.



What challenges do you see in attracting and retaining the right talent pool for healthcare startups, and how does Johnson & Johnson support and mentor entrepreneurs?

Switzerland's talent pool is a key factor in its global reputation for scientific innovation. The country is home to leading pharmaceutical and medtech companies employing thousands of highly skilled professionals, as well as world-class universities and research centers. Together, these institutions fuel a vibrant startup ecosystem that competes on a global scale and contributes to the strength of its workforce.

Additionally, Switzerland's appeal extends beyond its robust academic and industrial framework. Its spectacular landscape, safe environment, and stable labor conditions make it an attractive destination for recruiting top talent from around the world. However, one challenge lies in building critical business skills among Swiss entrepreneurs emerging from academia. Compared to their counterparts in places like the US, these entrepreneurs may lack commercial expertise, which can limit their ability to attract international investors.

To address this, we have formed long-term relationships with key organizations, such as the Basel-based healthcare accelerator BaseLaunch, with whom we have collaborated since its inception in 2017, and the medtech-focused SITEM Startup Club in Bern. Through these local collaborations, we provide mentorship to startup founders to equip them with the business skills needed to drive innovation in treatments, supply chain, manufacturing, and beyond.

Celebrating and honoring outstanding contributions to the industry

The Swiss Biotech Success Stories Awards are presented each year at Swiss Biotech Day to honor those who have made important and sustainable contributions to the biotech industry in Switzerland. The awards reflect the diversity and achievements of this innovative sector.

Switzerland is one of the world's leading biotech hubs and attracts many foreign companies, specialists and investors. It provides over 50'000 jobs in R&D biotech companies and specialized biotech suppliers and advisors; and, together with the pharmaceutical and chemical industries, it accounts for over half of Swiss exports. To make the industry's impact more visible, the Swiss Biotech Success Stories initiative was launched in 2018. Selected success stories are showcased to illustrate how Swiss biotech companies help patients, improve healthcare worldwide, and make a valuable and significant contribution to the Swiss and global economy.

Laureates are individuals or groups of extraordinary merit in scientific, translational, medical or commercial fields, that have a positive impact on the biotech and life science industry and society in Switzerland.

> *"It is essential to share with the public the importance and success factors of biotech companies and ensure that decision-makers understand what it takes for the industry to develop and remain competitive.*
>
> *"Young talent should be inspired and motivated to take a closer look at the great variety of career profiles in biotech."*
>
> **Michael Altorfer**, CEO
> Swiss Biotech Association

12 success categories

- Completed achievement with lasting impact
- Scientific breakthrough
- New technology
- Strong impact on society
- Product approval and sustainable revenues
- Important IP, innovative deal-making, acquisition
- Involvement of one or more Swiss citizens
- Swiss-based company / institution
- Creation of jobs in Switzerland
- Other aspect with a direct link to Switzerland
- Enabler for the biotech industry
- Swissness: Think global, made in Switzerland

This year's winners of the Swiss Biotech Success Stories Awards are Pascal Vonmont and Henri B. Meier. They are prime examples of outstanding personalities addressing major global challenges.

Independent jury of experts

Jürg Zürcher

President of the jury

Independent biotechnology leader and expert

Igor Fisch

President Fongit

CEO & Co-Founder

NewBiologix

Stefanie Flückiger-Mangual

CEO and Co-Founder

Tolremo

Gabrielle Gache

Head of Business Development (EMEA)

Santen Pharmaceuticals

Gabriela Güntherodt

EY Partner & Biotech Sector Leader Switzerland/Europe West

Chandra P. Leo

Investment Advisor Private Equity HBM Partners

Daniela Marino

CEO and Co-Founder

Cutiss

Thomas Staffelbach

Secretary of the jury

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Swiss Biotech Association

Swiss Biotech Success Stories award winner 2025

Dr. Dr. h.c. Henri B. Meier – entrepreneurial leader, venture capitalist, and founder of the Swiss Future Fund

Henri B. Meier's first contact with biotechnology occurred at the age of 54. The inspiration came through the acquisition of Genentech by F. Hoffmann-La Roche in 1990. Genentech were pioneers in recombinant DNA (rDNA) technology. This technology allowed a human gene to be inserted into the genetic material of bacteria. By inserting the human insulin gene, such "recombinant bacteria" could then produce insulin. This became the first recombinant drug approved by the FDA using rDNA technology.

After studies in St. Gallen and at Columbia University, New York, Henri B. Meier began his professional life working for developing countries at the World Bank in Washington, where he became Division Chief. At the age of 38 he felt like Sisyphus and he returned to the private sector in Switzerland, working for an engineering company in the field of power generation and transmission. This was followed by a move to investment banking and, at the age of 50, he became finance director at Roche, later being appointed to their Board of Directors.

Henri B. Meier's start at F. Hoffmann-La Roche–Sapac coincided with the loss of the most valuable (US) patent for Valium, the first blockbuster drug, which catapulted Roche in 1973 to become one of the top pharma companies globally. This patent loss resulted in a very difficult financial situation, but Roche's ability to generate substantial profits from financial transactions allowed it to successfully weather this challenging period and resulted in the market name "Roche Bank". The financial profits enabled major acquisitions, the most important of which was Genentech, followed by Boehringer Mannheim. Henri B. Meier also introduced International Accounting Standards and listed the shares and participation certificates, "Genussscheine", on the Zurich Stock Exchange (today SIX Swiss Exchange).

Officially retired in 2000, Henri B. Meier subsequently founded HBM BioVentures (today HBM Healthcare Investment Ltd.), HBM Partners AG, BioMedInvest AG, BioMedPartners AG and over 20 other startups, foundations and professorships.

Education is very dear to his heart. He promotes education at all levels from elementary school to university. As co-founder of the Swiss Future Fund, he advocates for more risk capital to benefit future generations.

If he had to put all his life efforts in one name, it would be "Wertschöpfung", i.e. value creation.

Swiss Biotech Success Stories award winner 2025

Dr. Pascale Vonmont – a promoter of innovation and entrepreneurship
CEO of a leading innovation foundation for over 25 years

Established in 1998 by Heinrich Gebert following the sale of the internationally successful family company Geberit, Gebert Rüf Stiftung is Switzerland's largest private science and innovation foundation. Pascale Vonmont, CEO and Director of Gebert Rüf Stiftung, has held a leadership position at the foundation since 1999.

Guided by the conviction that innovation is key to economic and social progress, the foundation fosters breakthrough technologies and cultivates an entrepreneurial mindset through educational and transfer projects. With an annual budget of up to CHF 15 million, it plays a crucial role in strengthening Switzerland's innovation landscape.

For over 25 years, Pascale Vonmont has been a driving force in advancing innovation and entrepreneurship. As a passionate bridge-builder between science, business, and society, she is committed to accelerating knowledge transfer and ensuring that groundbreaking research translates into real-world applications.

Holding a PhD in Biopolymers from ETH Zurich and additional credentials in foundation management from the European Business School EBS, her expertise spans interdisciplinary research funding, strategic philanthropy, and entrepreneurial support. She has led foundation life science research programs in fields such as rare diseases and microbials, addressing critical gaps and fostering high-impact solutions. She has also played a pivotal role in initiatives like Venture Kick, the Kick Foundation initiated by Gebert Rüf Stiftung, and Startupticker, empowering startups and positioning Switzerland as a global innovation hub.

Beyond her work at Gebert Rüf Stiftung, she is actively engaged in shaping Switzerland's foundation sector. As a board member of SwissFoundations, she advocates for a strong and liberal philanthropic landscape. She is also a member of the Advisory Board of the Center for Philanthropy Studies and has represented the foundation consortium on the Board of Directors of StiftungSchweiz since 2022. In 2024, she was appointed Vice President of the Peter Bopp Stiftung für Forschung und Technik.

Innovation remains a rare focus in philanthropy. Only 3% of all active and newly established foundations have an innovation-oriented mission like Gebert Rüf Stiftung. However, by supporting innovation projects, philanthropists can make a significant impact and generate powerful leverage effects.

The numbers illustrate this impact: Since its inception, Gebert Rüf Stiftung has funded over 1'400 projects with CHF 270 million, triggering CHF 8.7 billion in follow-up financing. The Kick Foundation initiative continues to solidify Switzerland's status as an innovation leader. Since 2007, Venture Kick has provided CHF 80 million in funding to 1'121 Swiss startup projects. These ventures have attracted CHF 9 billion in global investment, resulting in a portfolio of 750 high-tech companies and the creation of 14'441 jobs.

"Future Through Innovation, this is the shared vision."

Find more info at swissbiotech.org/success-stories

Hall of fame 2019 - 2024

Headquartered in Allschwil, Actelion is part of the Johnson & Johnson Family of Companies. Its ground-breaking research and medicines have been a key contributor to improve the lives of people affected by pulmonary hypertension, and made Actelion an industry leader in this area.

Werner Arber

Werner Arber, Swiss microbiologist and geneticist, won the 1978 Nobel Prize in Physiology or Medicine for his discovery of restriction endonucleases. His groundbreaking research in the field of molecular genetics was instrumental in the development of biotechnology.

Bachem situated in Bubendorf is a leading company specializing in development and manufacture of peptides and oligonucleotides. With over 50 years of experience and expertise, Bachem provides products and services for research, clinical development and commercial application to pharmaceutical and biotechnology companies globally.

Basilea Pharmaceutica in Allschwil is a biopharmaceutical R&D company, focused on the development of products that address the medical challenges in the therapeutic area of anti-infectives. They are committed to developing and commercializing innovative pharmaceutical products to meet the medical needs of patients with serious and life-threatening conditions.

Biogen in Baar is a leading biotechnology company that pioneers innovative science and delivers new medicines to transform patients' lives. A broad portfolio of medicines to treat multiple sclerosis, the first approved treatment for spinal muscular atrophy and the state-of-the-art biologics manufacturing facility in Luterbach are proof of Biogen's pioneering approach.

Family-owned Debiopharm from Lausanne, identifies high-potential compounds in oncology and for the treatment of bacterial infections. They are tested in clinical development and licensed to business partners globally. Millions of patients benefit from their therapies every year.

ESBATech, now a Novartis company, is recognized for its pioneering role in developing single-chain antibody fragments for ophthalmic indications. The most advanced product from the ESBATech platform received marked approval by the FDA in October 2019 and shortly thereafter in all major markets.

Hall of fame 2019 - 2024

The foundation promotes scientific research on neuromuscular diseases (myopathies) affecting children and adults. It awards grants to young researchers and has provided seed funding for two startups. It has established a scientific forum to encourage exchange of ideas, and also supports centers which care for patients.

Genedata, global market leader for software solutions that digitalize data-rich and complex bio-pharmaceutical R&D processes, enables an R&D revolution driven by precision medicines and artificial intelligence approaches. It helps the industry to deliver innovative biotherapeutics, vaccines and cell & gene therapies faster.

The Schlieren-based company is an integral part of Roche Pharmaceutical Research and Early Development since 2005, and a pioneer in antibody engineering in cancer immunotherapy. Its antibody glycosylation technology increases immune-mediated cancer cell killing and builds the basis for improved cancer medicines.

Helsinn, an important employer in Ticino, has a broad portfolio of marketed cancer care products and a deep development pipeline. It has built significant R&D and manufacturing capacities. It also advances patient care and supports healthcare innovation with its investment fund.

Humabs BioMed, a subsidiary of Vir Biotechnology, uses its immunologic expertise and cutting-edge technology to combat infectious diseases and other serious conditions. It is a pioneer in the discovery, engineering, and development of human monoclonal antibodies, e.g. crucial for fighting Ebola and COVID-19, and has helped transform the infectious disease landscape.

Etienne Jornod, Swiss entrepreneur, was Executive Chairman of the Vifor-Galenica Group delivering 25 consecutive double-digit net profit growth, supporting millions of patients and creating thousands of jobs. In 2020, he acquired OM Pharma with friends, aiming to create a unique biopharmaceutical company based on bacteria lysates expertise.

Lonza is one of the world's largest healthcare manufacturing organizations, serving pharmaceutical, biotech and nutritional markets. Lonza's work enables its customers to develop and commercialize their therapeutic discoveries, allowing their patients to benefit from life-saving and life-enhancing treatments.

Founded by the renowned immunologist, Professor Bernard Mach MD PhD, privately-owned Novimmune is a leading light in the discovery and development of fully-human, antibody-based drugs used to fight autoimmune and inflammatory diseases and cancer.

Fully integrated into GlaxoSmithKline since 2013, Okairos from Basel developed innovative T-cell based vaccines for major infectious diseases such as malaria, hepatitis C, HIV, and Ebola. Its novel replication-incompetent adenovirus vectors could enable the development of important new vaccines and offer immunizations against illnesses that lack vaccines.

The advanced technologies in protein expression by Selexis provide biotech and pharmaceutical companies a rapid, stable, and cost-effective solution for the production of recombinant proteins. Nearly a hundred drug candidates in clinical development and three commercial products utilize the technologies of the Plan-les-Ouates-based company.

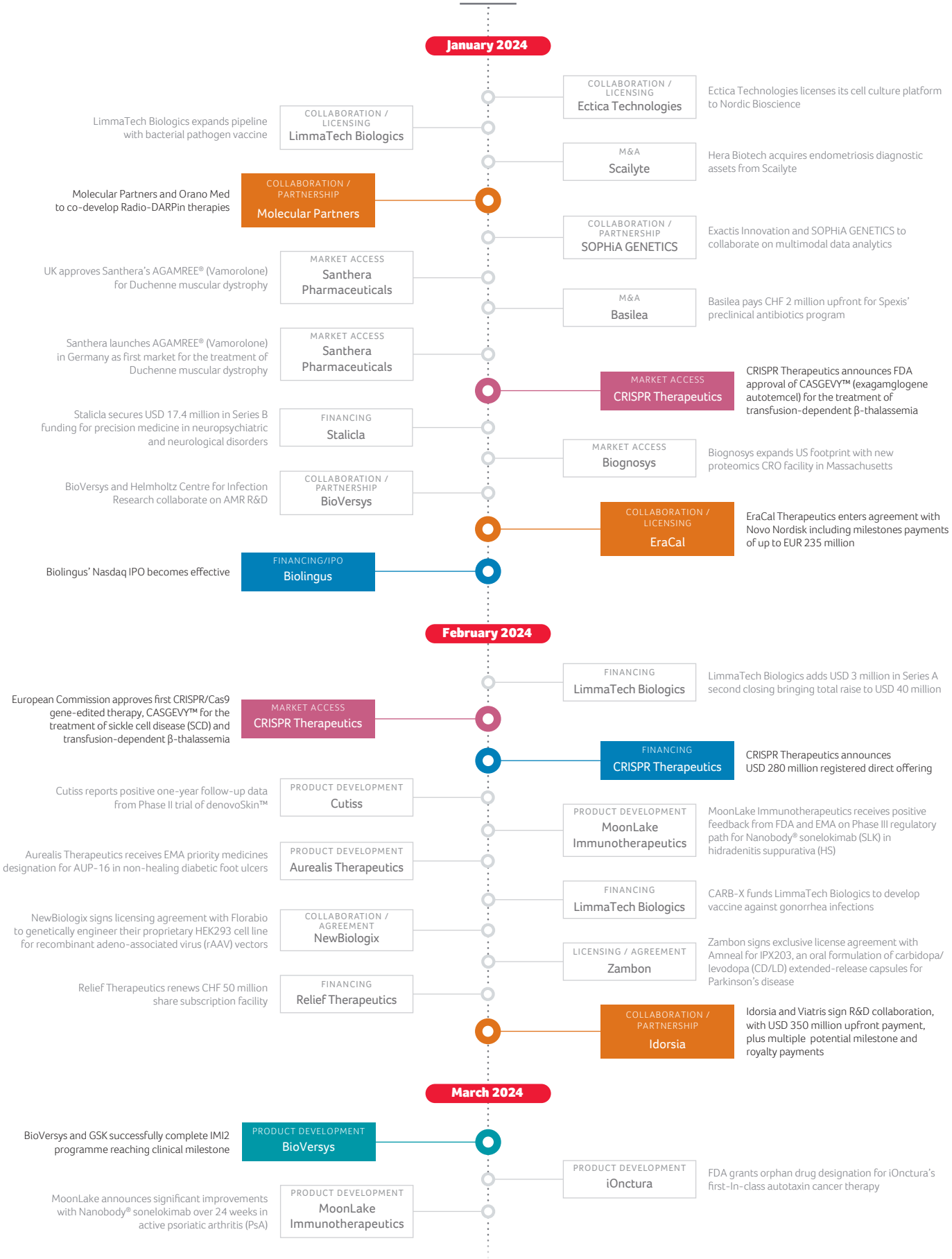
SOPHiA GENETICS generates clinically actionable insights and improved patient outcomes from a global data-sharing network. It democratizes data-driven medicine globally through a cloud-based, decentralized SaaS platform, empowering shared insights among clinicians and researchers, and aiming for equal access to knowledge and improved clinical outcomes.

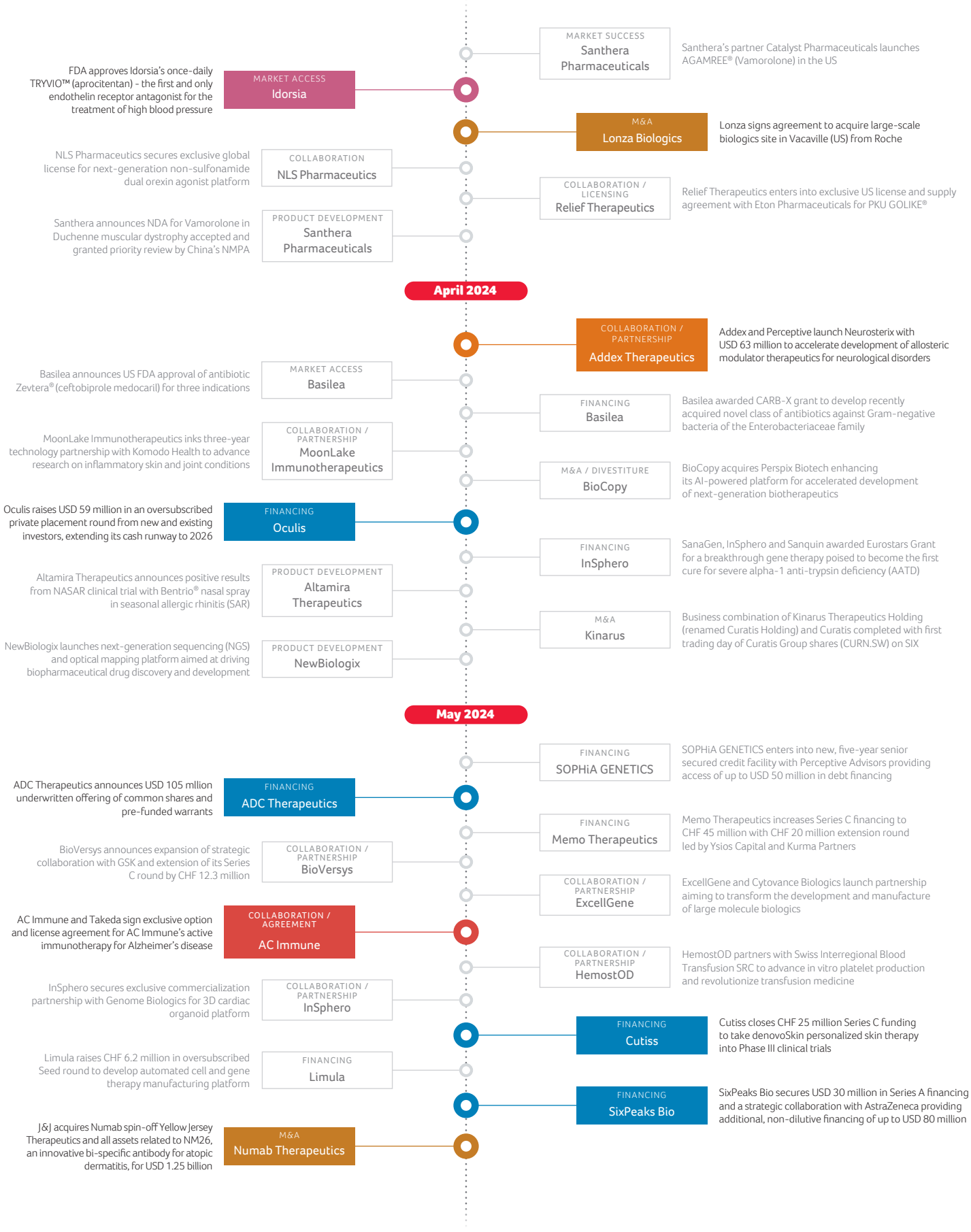
Dr. Hans-Peter Strebel founded Fumapharm AG with three other scientists in 1983. Its successful research led to the development of Tecfidera, a disease modifying therapy for relapsing multiple sclerosis (MS). More than 600'000 patients worldwide have already benefited from the therapy.

The trio of foundations has been supporting biotech startups with great success for more than 10 years, thereby making a significant contribution to the growth of the Swiss biotech industry. They share the nomination for the Swiss Biotech Success Stories Award.

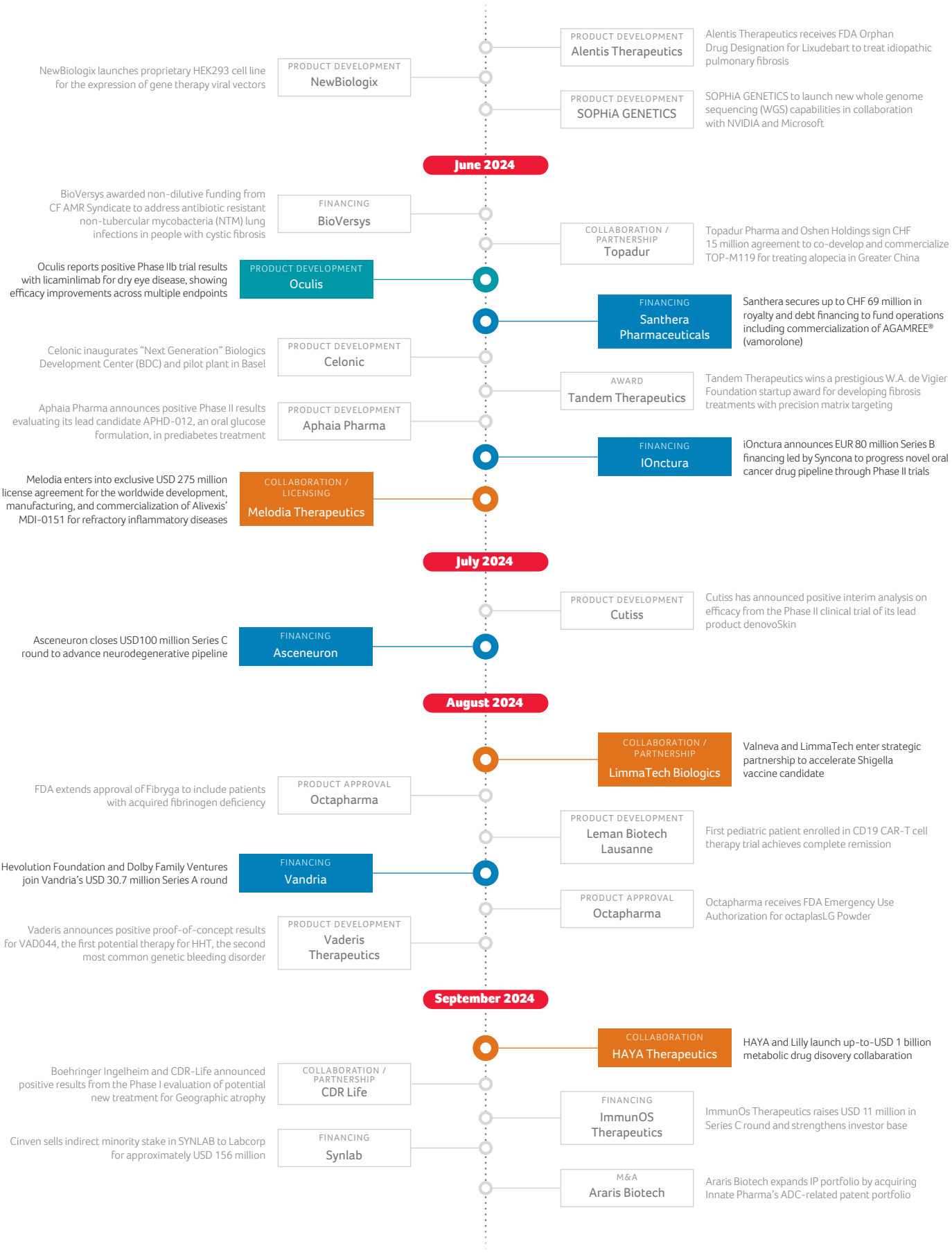
This transformational joint venture provides Vifor Pharma direct access to dialysis patients, facilitating the product distribution and recruitment for clinical development. It rapidly transformed the company from Glattbrugg into a global nephrology corporation. Such vertical integration is a role model for the convergence of different life sciences sectors.

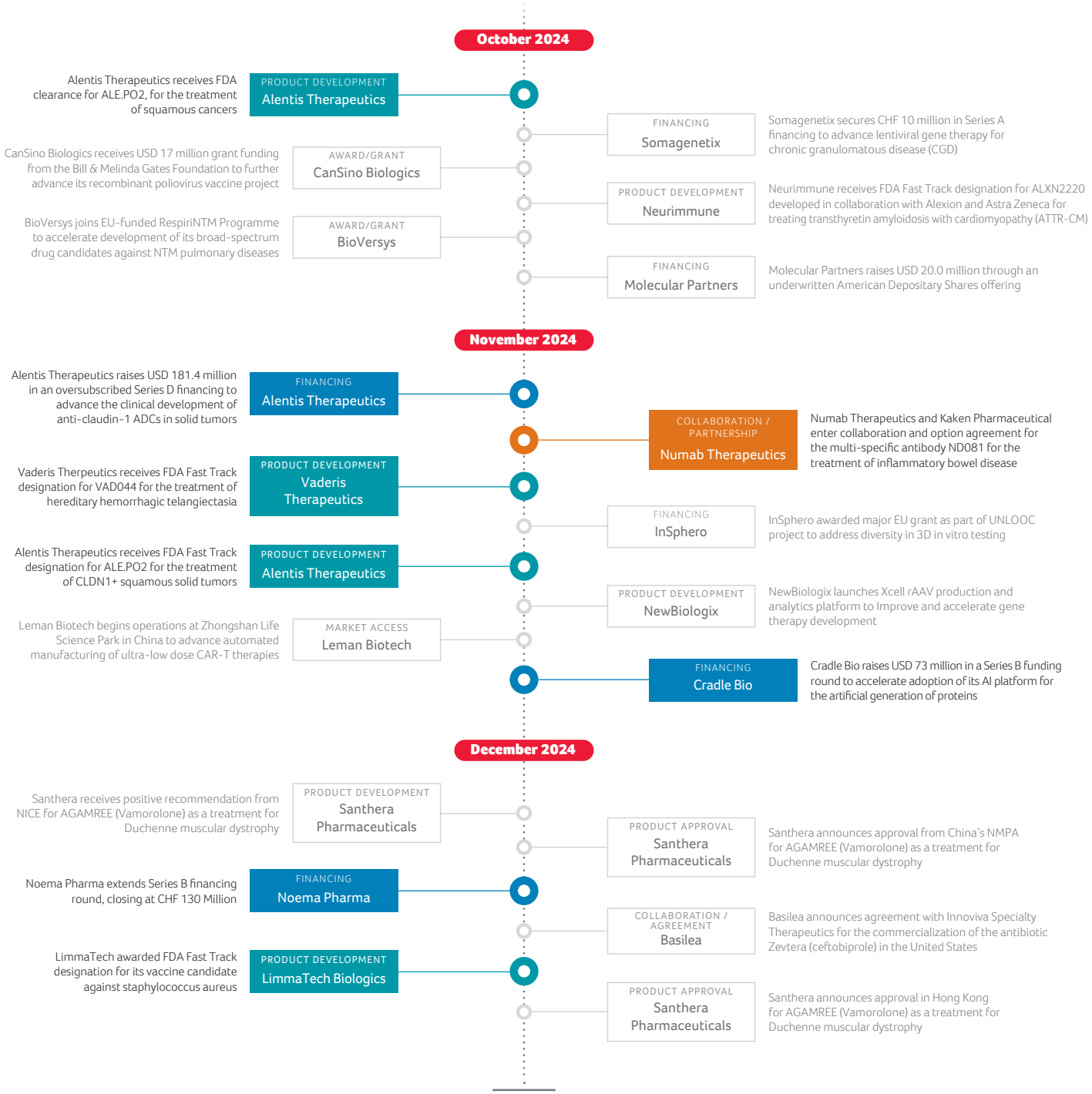
Swiss biotech events of 2024




MARKET SUCCESS
Santhera Pharmaceuticals
Santhera's partner Catalyst Pharmaceuticals launches AGAMREE® (Vamorolone) in the US
FDA approves Idorsia's once-daily TRYVIO™ (aprocitentan) - the first and only endothelin receptor antagonist for the treatment of high blood pressure
MARKET ACCESS
Idorsia
M&A
Lonza Biologics
Lonza signs agreement to acquire large-scale biologics site in Vacaville (US) from Roche
NLS Pharmaceutics secures exclusive global license for next-generation non-sulfonamide dual orexin agonist platform
COLLABORATION
NLS Pharmaceutics
COLLABORATION / LICENSING
Relief Therapeutics
Relief Therapeutics enters into exclusive US license and supply agreement with Eton Pharmaceuticals for PKU GOLIKE®
Santhera announces NDA for Vamorolone in Duchenne muscular dystrophy accepted and granted priority review by China's NMPA
PRODUCT DEVELOPMENT
Santhera Pharmaceuticals
April 2024
COLLABORATION / PARTNERSHIP
Addex Therapeutics
Addex and Perceptive launch Neurosterix with USD 63 million to accelerate development of allosteric modulator therapeutics for neurological disorders
Basilea announces US FDA approval of antibiotic Zevtera® (ceftobiprole medocaril) for three indications
MARKET ACCESS
Basilea
FINANCING
Basilea
Basilea awarded CARB-X grant to develop recently acquired novel class of antibiotics against Gram-negative bacteria of the Enterobacteriaceae family
MoonLake Immunotherapeutics inks three-year technology partnership with Komodo Health to advance research on inflammatory skin and joint conditions
COLLABORATION / PARTNERSHIP
MoonLake Immunotherapeutics
M&A / DIVESTITURE
BioCopy
BioCopy acquires Perspix Biotech enhancing its AI-powered platform for accelerated development of next-generation biotherapeutics
Oculis raises USD 59 million in an oversubscribed private placement round from new and existing investors, extending its cash runway to 2026
FINANCING
Oculis
FINANCING
InSphero
SanaGen, InSphero and Sanquin awarded Eurostars Grant for a breakthrough gene therapy poised to become the first cure for severe alpha-1 anti-trypsin deficiency (AATD)
Altamira Therapeutics announces positive results from NASAR clinical trial with Bentrio® nasal spray in seasonal allergic rhinitis (SAR)
PRODUCT DEVELOPMENT
Altamira Therapeutics
M&A
Kinarus
Business combination of Kinarus Therapeutics Holding (renamed Curatis Holding) and Curatis completed with first trading day of Curatis Group shares (CURN.SW) on SIX
NewBiologix launches next-generation sequencing (NGS) and optical mapping platform aimed at driving biopharmaceutical drug discovery and development
PRODUCT DEVELOPMENT
NewBiologix
May 2024
FINANCING
SOPHiA GENETICS
SOPHiA GENETICS enters into new, five-year senior secured credit facility with Perceptive Advisors providing access of up to USD 50 million in debt financing
ADC Therapeutics announces USD 105 mllion underwritten offering of common shares and pre-funded warrants
FINANCING
ADC Therapeutics
FINANCING
Memo Therapeutics
Memo Therapeutics increases Series C financing to CHF 45 million with CHF 20 million extension round led by Ysios Capital and Kurma Partners
BioVersys announces expansion of strategic collaboration with GSK and extension of its Series C round by CHF 12.3 million
COLLABORATION / PARTNERSHIP
BioVersys
COLLABORATION / PARTNERSHIP
ExcellGene
ExcellGene and Cytovance Biologics launch partnership aiming to transform the development and manufacture of large molecule biologics
AC Immune and Takeda sign exclusive option and license agreement for AC Immune's active immunotherapy for Alzheimer's disease
COLLABORATION / AGREEMENT
AC Immune
COLLABORATION / PARTNERSHIP
HemostOD
HemostOD partners with Swiss Interregional Blood Transfusion SRC to advance in vitro platelet production and revolutionize transfusion medicine
InSphero secures exclusive commercialization partnership with Genome Biologics for 3D cardiac organoid platform
COLLABORATION / PARTNERSHIP
InSphero
FINANCING
Cutiss
Cutiss closes CHF 25 million Series C funding to take denovoSkin personalized skin therapy into Phase III clinical trials
Limula raises CHF 6.2 million in oversubscribed Seed round to develop automated cell and gene therapy manufacturing platform
FINANCING
Limula
FINANCING
SixPeaks Bio
SixPeaks Bio secures USD 30 million in Series A financing and a strategic collaboration with AstraZeneca providing additional, non-dilutive financing of up to USD 80 million
J&J acquires Numab spin-off Yellow Jersey Therapeutics and all assets related to NM26, an innovative bi-specific antibody for atopic dermatitis, for USD 1.25 billion
M&A
Numab Therapeutics

Swiss biotech events of 2024





Please note that the above presented information is only a selection of publicly available information. We therefore cannot guarantee that all events are included in the above summary for 2024.

SIX Swiss Exchange talks to:
Basilea on how it strengthened its market position in 2024

Fabian Gerber

SIX Swiss Exchange AG | Head Origination, Primary Markets

SIX Swiss Exchange reviews publicly listed companies included in 'Highlights of 2024: Year in Review' (Pages 52 to 55). While Santhera and Kuros made good progress, SIX recognizes the notable success of Basilea which, 20 years after its IPO in 2004, has reported increasingly robust profits.

Basilea, a cornerstone of the Swiss biotech scene and an important player in the field of innovative therapies, looks back on a successful performance during 2024. With its partner-centric business model focused on anti-infectives, the SIX-listed biotech company strengthened its position and made significant progress in its financial performance, reporting a strong operating profit of CHF 61 million. The company continued to generate significant positive cash flow and ended the year with a strong liquidity position of CHF 125 million.

Figure 1 shows that the share price increased significantly over the course of the year, particularly following the announcement of regulatory approvals, financial results and new partnerships. With an annual return of 19.2%, Basilea outperformed both the SPI (+6.2%) and the SLIFE Index (+14.2%). Several analysts raised their price targets, reflecting the positive progress.

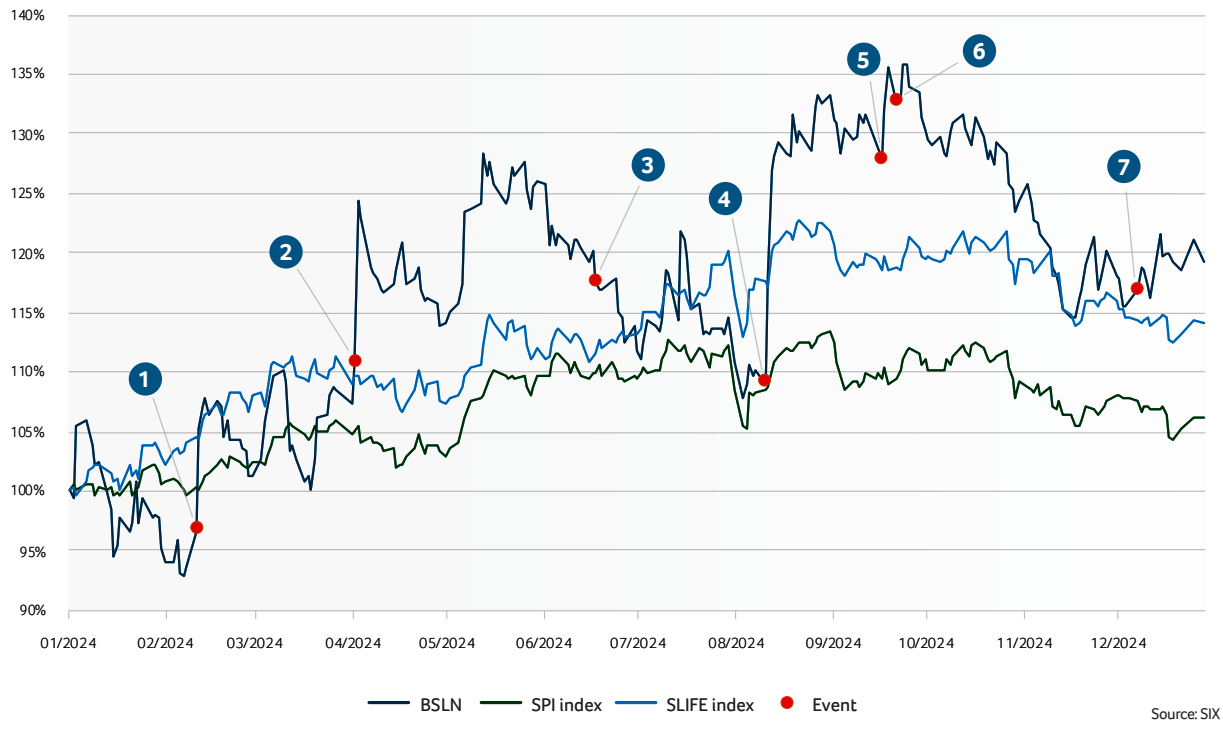


Figure 1: Positive news flow during 2024 drove Basilea's share price performance

The Basilea business model is focused on partnerships. From the very start, it has acquired and in-licensed innovative therapies sourced from small biotech to big pharma across the globe. Basilea has also accessed non-dilutive funding partnerships which offset a significant proportion of its research and development costs. For its global commercialization, Basilea has formed partnerships covering more than 100 countries, exemplified in 2024 with the new agreement for the commercialization of Zevtera® in the US. The value of commercial partnerships was further shown by the fact that one third of Basilea's 2024 press releases related to the receipt of sales milestone payments from commercial partners. This also shows that its marketed products address needs in the market.

1 On **February 13, 2024**, the 2023 annual results were published with a positive forecast. Profit exceeded expectations and total revenue growth of 20% was announced.

4 Basilea reported strong half-year figures on **August 13, 2024**, and raised its forecast. Total revenue of CHF 196 million (+20%) and a net profit of CHF 42 million were projected for the full year.

Positive regulatory decisions and pipeline development

2 On **April 4, 2024**, the FDA, the US regulatory agency, approved the antibiotic ceftobiprole (Zevtera) for the treatment of bloodstream infections, skin infections and community acquired pneumonia.

6 On **September 24, 2024**, the start of a Phase III trial with fosmanogepix for the treatment of invasive fungal infections was announced.

Milestone payments and substantial non-dilutive funding

Driven mainly by the success of the antifungal Cresemba®, several milestone payments to Basilea were triggered in the past year, totaling CHF 39.1 million.

On January 19, 2024, Basilea announced a first milestone from Knight Therapeutics based on strong Cresemba sales in Latin America, followed by further milestones (on March 11, May 16, September 6, October 10, 2024) totaling USD 30 million from Pfizer, based on Cresemba sales in Asia and Europe. In addition, Basilea received a CHF 10 million milestone payment from Pfizer related to the extension of the market exclusivity of Cresemba in the EU. On January 28, 2025, Basilea announced that the 2024 sales of Cresemba in Canada and the Middle East / North Africa regions and the 2024 sales of Zevtera in Europe triggered further milestones amounting to a total of CHF 2.2 million.

5 In addition, Basilea secured significant non-dilutive funding for its research and development activities. On **September 19, 2024**, Basilea announced an agreement with BARDA, part of the US government, for up to USD 268 million for the development of new antifungals and antibiotics. In December 2024, Basilea also received USD 7.3 million in funding for a pre-clinical antibiotic program from CARB-X, a US-based global consortium, after an initial USD 0.9 million was awarded in April 2024.

Strategic partnerships further expanded

3 Asset purchase agreement with the Glioblastoma Foundation for Basilea's oncology drug candidate lisavanbulin, on **June 20, 2024**. This marked the final exit from the cancer area, allowing the company to focus on anti-infectives going forwards.

7 On **December 10, 2024**: Agreement with Innoviva Specialty Therapeutics to commercialize Zevtera (ceftobiprole) in the US. Basilea received an upfront payment of USD 4 million. In addition, potential milestone payments of up to USD 223 million as well as double-digit royalties on sales have been agreed.

Basilea has been listed on the SIX Swiss Exchange since 2004 and had a market capitalization of CHF 544.6 million as of December 31, 2024. With a solid financial position, a strong product pipeline and new partnerships, Basilea in 2024 has laid the foundation for future growth.

Contributors' profiles

Swiss Biotech Association
The Swiss Biotech Association has represented the interests of the Swiss biotech industry since 1998. To support its members in a competitive market, the Swiss Biotech Association works to secure favorable framework conditions and facilitate access to talents, novel technologies and financial resources. To strengthen and promote the Swiss biotech industry, the Swiss Biotech Association also collaborates with numerous partners and life science clusters globally under the brand Swiss Biotech™.
www.swissbiotech.org

EY
EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. Our Global Life Sciences Sector brings together a worldwide network of 35'000 sector-focused professionals to anticipate trends, identify their implications and help our clients create competitive advantage. We can help you navigate your way forward and achieve sustainable success in the new health-outcomes-driven ecosystem.
www.ey.com/lifesciences

scienceindustries
scienceindustries is the Swiss business association of chemistry, pharma and life sciences. It supports around 250 member companies: fostering an innovation-friendly environment in Switzerland, creating a competitive production and business framework, enabling attractive market conditions, and facilitating worldwide market access.
www.scienceindustries.ch

Swiss National Science Foundation
The Swiss National Science Foundation (SNSF) is Switzerland's foremost research funding agency. In accordance with its government mandate, the SNSF supports scientific research in all disciplines, from physics to medicine to sociology. Each year the best new projects are awarded around CHF one billion in total based on rigorous evaluation processes. The SNSF supported up to 6'000 projects involving more than 22'000 researchers at year-end 2024.
www.snsf.ch

Swiss Federal Institute of Intellectual Property
The Swiss Federal Institute of Intellectual Property (IPI) is the federal center of competence for patents, trademarks, geographical indications, design, and copyright. Individuals and companies can register their inventions and creations with the IPI to protect them from being copied. In addition to this, the IPI informs the public about the IP rights system of protection. It also fulfils a political mandate in all areas of intellectual property in that it prepares legislation, advises the federal authorities, and represents Switzerland within international organizations and vis-à-vis other countries.
www.ige.ch

Biotechnet Switzerland
Biotechnet Switzerland helps industry access high-caliber competences in biotechnology from Swiss universities of applied sciences, universities, and research and technology organizations. Industrial partners including small, medium and large enterprises can rely on our proven expertise and outstanding infrastructure to support innovative research & development projects. We are also a premium partner to address continuing education needs.
www.biotechnet.ch

Swiss Academy of Engineering Sciences SATW
The Swiss Academy of Engineering Sciences SATW is the most important network of experts for engineering sciences in Switzerland and is in contact with the highest Swiss bodies for science, politics and industry. The network consists of elected individual members, member organizations and experts. SATW promotes the interests and understanding of technology in the population, including young people in particular.
www.satw.ch

Swissmedic
Swissmedic, the Swiss Agency for Therapeutic Products, is the Swiss authority for the authorization and monitoring of therapeutic products (medicinal products and medical devices). The Agency is attached to the Federal Department of Home Affairs, is independently organized and managed, and has its own budget. Statements made in the Swiss Biotech Report represent the view of Swissmedic from the regulatory perspective.
www.swissmedic.ch

Switzerland Global Enterprise
Switzerland Global Enterprise (S-GE) is mandated by the Swiss government for export and investment promotion. In its role as a center of excellence for internationalization, its mission is to help Swiss SMEs develop new potential for their international business and to strengthen Switzerland as an economic hub. S-GE assists foreign companies in evaluating Switzerland as a business and technology location, and together with its cantonal partners helps companies during the entire site selection and incorporation process.
www.s-ge.com

SIX
SIX Swiss Exchange is the leading European stock exchange for life sciences companies looking to scale and succeed on the global stage. SIX offers a deep and diversified investor base, strong liquidity, and a stable regulatory framework. Switzerland's globally recognized life sciences ecosystem, combined with SIX's efficient listing process and access to specialist investors, makes it the exchange of choice for innovative healthcare companies.
www.six-swiss-exchange.com

The contributors have been listed in order of appearance in this report

"Science only functions if it is based on openness and cooperation, with researchers working and competing at a global level. SNSF grants fostering international exchange total around CHF 70 million/year."

Florian Fisch
Swiss National Science Foundation

"Biotechnology papers from Swiss institutions receive the highest average number of citations, both from scholars and in patents."

Christian Moser Nikle
Swiss Federal Institute of Intellectual Property

"Switzerland has an obligation to develop sustainable technological solutions for a less privileged global society, but this can only be achieved through international alliances and cooperation. Industrial biotechnology, driven by sustainability, is the next potential economic sector."

Benoît Dubuis
SATW

"The secret to Swiss success lies in our ability to combine an industrious, bottom-up approach with an increasingly open mindset and the participation of top international talent in the knowledge economy."

Laura Suter-Dick
Biotechnet

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