

## Swiss Life Sciences Start-ups – A ‘tour d’horizon’



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This special issue with articles that differ substantially from the ‘traditional’ CHIMIA content analyzes and describes why Switzerland flags up an impressive number of start-up companies in the life sciences. We give an overview of the different schemes that support courageous scientists in founding their own company, not least with the hope that this may encourage readers to turn their own life sciences ideas into tangible products by starting a new company.

For many chemists the ‘world of start-ups’ is largely unknown territory. Researchers in academia and those employed in the life sciences industry in Switzerland often have difficulty understanding how closely leading-edge (chemical) science can accompany start-up entrepreneurship, despite the fact that the Swiss chemical industry and chemical applications in particular have a long-standing tradition in Switzerland. This is presumably not least due to the high cost of bringing new compounds to the market. The costs of investing in laboratory infrastructure are immense, particularly near bigger cities. But this is where the highly skilled staff needed to drive projects to success can be found.

Life sciences start-up companies prefer to establish themselves near their scientific origins. This is where they find the necessary laboratory infrastructure. Geographical proximity to academia also increases the chances of access to expertise that can be managed with relative ease. Dialogue with academia is also crucial for the industry that therefore also clusters in regions with a high density of experts and young talent.

Spin-offs prefer to stay near their universities and benefit from this proximity, even decades after market entry. CIBA, Geigy, Sandoz and Hoffmann-La Roche are the reason why the phrase ‘life sciences industry in Switzerland’ today is traditionally associated with the region of Basel. Actelion as Europe’s most successful life sciences start-up in the late 20th century represents the next chapter of this success story.

Next to Northwestern Switzerland with its specialized academic institutions, including the Basel Biocenter, the Friedrich Miescher Institute (FMI), the former Basel Institute for Immunology and the Swiss Institute for Tropical and Public Health (TPH), today life sciences start-ups are also flourishing in the greater Zurich Area and in the Bassin Lémanique with their world class technical universities, the ETH Zurich and the EPFL Lausanne. The latter most recently enjoyed substantial attention for its Human Blue Brain project.

While we differentiate between these regions in Switzerland – and often see quite a bit of professional jealousy among them – bigger countries would regard them as a single economic region. In fact, proximity to expertise and infrastructure, both major assets for making a start-up work, is relatively easy to maintain in a country as small as Switzerland. Close to academic life sciences centers, science and technology parks offer affordable office space and infrastructure that meet the needs of life sciences start-ups. There are many smart people around in the small Swiss geographic and economic region. Since 1910 seven Nobel Laureates for Chemistry have come from (*i.e.* lived and worked in) Switzerland, and nine Nobel Laureates for Medicine. Switzerland ranked first in the INSEAD Global Innovation Index 2012 for the development of innovative technologies. Our world-class technical universities and several universities of applied sciences actively encourage and support spin-outs, in particular with regards to securing the intellectual property (IP) of potential future market products. A strong IP is a major milestone towards getting help from federal-government-funded networks such as the KTI/CTI that provides substantial grants and business coaching in setting up new companies. Next to the federal KTI/CTI, several regional start-up agencies and big universities also provide support towards founding and setting up new life sciences companies.

Once a new Swiss company with a proven sound business idea has been set up, it needs to find seed money. Regional organizations that support start-ups help young entrepreneurs to get in touch with business angels and other investors for the next financing rounds.

Though the situation for start-ups is very good in Switzerland, it still has some way to go before it represents a perfect start-up environment. This issue of CHIMIA analyzes the general background. We showcase federal and regional approaches for start-up support. Case examples, such as those of BioVersys and PIQUR from the Basel region, and an interview with the founder of EnvEve and an academic research fellow from Ticino give insight into different approaches and highlight what makes life sciences start-ups successful from the founders’ perspective. Investors and Business Angels talk about what matters to them when considering which start-ups to support. And a comprehensive catalogue of legal questions and answers can serve as a framework around which to design one’s own company.

We hope this special issue will be of interest to international chemists and encourage them to seriously consider bringing their chemical science to the market in the form of their own life sciences start-up company.

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The Editorial Board of CHIMIA expresses its gratitude to Dr. Peter Burckhardt for organizing this special issue highlighting the wide range of activities that support Life Sciences Start-ups in Switzerland.