

**“...an educational approach to scientific entrepreneurship is highly recommended”**



The book “Bio- and Medtech Entrepreneurship” published by the USI Faculty of Biomedical Sciences, introduces a new approach to life sciences entrepreneurship. Designed to guide students that wish to set up a startup in the sector, the book offers 25 chapters written by 30 international authors, including startup founders, experts and investors in the sector. Startupticker talked to the editor, Heidrun Flaadt Cervini, Director CASE BioMed for more insights and background of the book.

### **What inspired you to write the book?**

When I came to Ticino in 2008, I met with Professor Piero Martinoli, former President at Università della Svizzera Italiana ([USI](#)). He spoke about his wish to set up a new executive training platform and offered me a mandate to carry out global market research. The outcome showed that entrepreneurship programs in the life science sector were missing from the educational paths offered at European universities, and I was permitted to move forward in developing training programs that would fill this gap.

In 2010, we launched our bioentrepreneurship program, “BioBusiness,” with participants representing some of the most promising European business ideas in the life science sector. In addition, it was possible to attract a faculty of highly qualified instructors from industry and venture capital. In 2014, we were able to diversify our offering and launch the MedTech entrepreneurship program, “MedTech Business,” a comprehensive program guiding participants through the most critical steps regarding the start-up and development of a MedTech company.

The purpose of this book is to allow the students of our BioBusiness and MedTech Business programs better preparation and a retrospective review of the program weeks. In addition, it is to serve as a brief textbook to be used by any other person or student to gain a first overview of what it takes to set up and finance bio- or medtech companies.

### **What makes it unique?**

In our opinion, the book contains a so far unique collection of life science sector-specific topics, fundamentally necessary to start and fund a life science company. The book includes chapters, divided into two distinct sections, on bio- and medtech entrepreneurship.

Each chapter is written by a different author, most of them are life science start-up founders, industry experts or venture capitalists. Each author prepared and presented the content from an individual point of view based on experiences. The resulting heterogeneity in delivering the knowledge is the desired outcome for a multifaceted approach to life science entrepreneurship.

The chapters begin with a short introduction leading into the specific theme. To familiarize the reader with the topic, in these short introductions particular emphasis was placed on providing some details from existing knowledge and information. Along with these, cartoons illustrate the entrepreneurial challenges and add a touch of humor, lending a lighter perspective to the challenging aspects of life science entrepreneurship.

This compilation can be either read as a whole or used as a reference book by selecting individual chapters in the case of specific questions. We have chosen the format of a compendium rather than a classic textbook to deliver the knowledge at hand.

Last, but not least, the book is the outcome of an academic approach to life science entrepreneurship. Our university is a pioneer in sector-specific science entrepreneurship training in Switzerland. The academic context and setting not only allows imparting the knowledge neutrally, but it also closes the educational gap in life science entrepreneurship at Swiss universities.

**You have analyzed the bio-and medtech market leading to the publication of this book: what are some of the challenges in this sector?**

Innovation in bio- and medical technologies are distinct from other types of innovation in general. It is characterized by a stringent regulatory framework to ensure quality, safety, and efficacy; high costs associated with elevated risks; input from the public sector (research, funding and infrastructure) and ethical restrictions.

**What can be done to minimize those challenges?**

I am not the right person to judge whether these challenges can be minimized. We hope that each aspiring and young entrepreneur is aware that the process of innovation in life science is associated with these risks. To ensure the best possible outcome in broadening access to an innovation that has substantial value, an educational approach to scientific entrepreneurship is highly recommended. This was the basis, on which we have established our bio- and medtech entrepreneurship programs, BioBusiness and MedTech Business, almost ten years ago and recently edited this (accompanying) book.

**What key learnings have you gathered along the way as you compiled the content of the book?**

We had to understand that it is not possible to provide a general and single recipe or instructions on how to develop a life science start-up successfully. Therefore, we introduced some of the essential aspects of bio- and medtech entrepreneurship to stimulate the self-study process of each future and young life science entrepreneur. Especially, because life sciences companies operate in a constantly evolving business environment forcing them to adapt continuously.

**Will there be more books of this kind, if yes what topics will they cover, and what would you change?**

We started with the first edition of 1000 book copies, and three-fourths of them are already distributed. We have chosen to start with a limited edition because it offers the possibility to

adapt the content of each further edition. For example, the regulatory framework in the medtech business is facing a transition period concerning the medical device regulation (MDR) and the in vitro diagnostic medical device regulation (IVDR). One of the next editions of the book will certainly provide an in-depth insight into these new regulations.

Heidrun acknowledges the contribution of Jörg Dogwiler, CEO at Congenius AG as co-editor of the book. The book is available on <http://www.biomed.usi.ch/it/order-book-bio-and-medtech-entrepreneurship>.

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