

On the Crossroads between Research and Entrepreneurship

Biotechnology/pharma is big in Belgium, with world renowned large players like UCB and Janssen Pharmaceuticals (J&J group) and an ever growing number of (new) biotechnology firms. A number of researchers and investors from the early years are still going strong. This short contribution is a case illustration of ThromboGenics and its founder D. Collen.

ThromboGenics (THR, °1998) is (was) the “star” amongst the biotechnology firms in Belgium. The company was established as a spin-off of the University of Leuven (KU Leuven), working on biopharmaceutical drug development between academia and industry. The company developed over the years from a university spin-off to a fully integrated specialty pharmaceutical company, with a promising biotechnology-based pipeline. Its primary goals are to develop and commercialize innovative therapies in ophthalmology (visual disorders, with a special focus on diabetes, i.e. diabetic retinopathy), cardiovascular diseases and oncology (cancer). Over the years, ThromboGenics partnered in a large number of strategic alliances with major players in global biotechnology. These strategic partnerships include research collaborations, co-development and co-commercialization as well as in-licensing agreements.

ThromboGenics lead product JETREA (ocriplasmin-platform; back of the eye disease) was approved by the Food and Drug Administration (FDA) in October 2012 for symptomatic vitreomacular adhesion (VMA) in the eyes and subsequently launched in January 2013. In March 2012, ThromboGenics signed a strategic partnership with Alcon (Novartis). Novartis' ophthalmic unit Alcon acquired the non-US rights to ocriplasmin, giving ThromboGenics access to significant milestone payments and royalties. ThromboGenics experienced problems with its commercial organization supporting JETREA and hence a downturn of its US-sales, which amounted to a lower than expected market demand of its lead product.

From 2013 onwards, ThromboGenics explored new “strategic options” and made a turnaround towards the development and commercialization of next generation therapies for the treatment of severe diabetic eye disorders. ThromboGenics evolved from a university spin-off to a fully integrated biopharmaceutical company and is now a clinical stage biotechnology company, taking its future prospects beyond its lead product JETREA®.

In April 2015, the company's research and development activities in oncology were spun out into a separate entity. Oncurious is a joint venture with the Flanders Institute of Biotechnology, a regional government funded institution that focuses on translating basic scientific results into pharmaceutical, agricultural and industrial applications. Oncurious is leveraging the joint expertise to develop innovative medicines (orphan drugs) for the treatment of pediatric cancer (brain tumors).

In March 2016, ThromboGenics signed a global in-licensing agreement (inbound open innovation) with Galapagos with respect to certain compounds to develop and commercialize THR-687 for the treatment of diabetic eye disease (diabetic retinopathy). ThromboGenics will pay a technology transfer fee to Galapagos. Galapagos will also be entitled to development and commercial milestone payments plus royalties on net sales of products.

In september 2017, ThromboGenics regained full global rights to JETREA® from Alcon, a Novartis company (<https://www.thrombogenics.com/content/thrombogenics-regains-global-rights-jetrea%C2%AE-ocriplasmin>)

Prof. Désiré Collen, ThromboGenics' founder has kept on investing in Belgian biotech – in both bioRegions of Flanders and Wallonia - ever since, as the milestones below show.

- successful biotech entrepreneur and recurrent/serial investor;
- Prof Collen led the research and development of tissue plasminogen activator (tPA), a key product for Genentech in the late 1980s and 1990s. This product revolutionized the treatment of acute myocardial infarction and stroke when it was introduced;
- In 1991, Prof Dr Désiré Collen and colleagues at the Katholieke Universiteit Leuven spun out Thromb-X;
- foundation of ThromboGenics in 1998;
- successful IPO in 2006;
- research on JETREA® (ocriplasmin) > strategic alliance with Novartis (Alcon);
- set up Life Sciences Research Partners in 1998, which invests in emerging life sciences companies and promotes scientific research through grants, scholarships and related activities;
- chairman of the board of FUND+ (<http://fundplus.be/>), an open-ended Fund for long term equity investment in innovative Life Sciences companies with a focus on Belgium (since 2015): Ogeda (now Astellas), Promethera, Novadip, iTeos, Octimet, eTheRNA (stem cell and cancer research).

Web <http://www.thrombogenics.com/>

Current status of pipeline:

<http://www.thrombogenics.com/sites/default/files/documents/THR%20Investor%20Presentation%20052017%20vP.pdf>

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<http://hdl.handle.net/2268/207369>