Novartis-AveXis: an $8.7bn gene repair

Novartis AG (SIX: NOVN) – market cap as of 20/04/2018: CHF204.12bn
AveXis Inc (NASDAQ: AVXS) – market cap as of 20/04/2018: $7.62bn

Introduction

On April 9, Novartis submitted an offer to acquire all the shares of the American gene therapy group AveXis. The Swiss drugmaker offered an 88% premium adding up to an $8.7bn deal. The deal is another purchase put forward by the new CEO of the company, Mr. Vasant Narasimhan, which is dead set on re-focusing Novartis' activities back to its staple business.

The move happens right after Novartis sold its $13bn-stake in a consumer health joint venture to GlaxoSmithKline, enabling Novartis to further focus on the development and growth of its core businesses.

About Novartis

The origins of Novartis trace back to the discovery of synthetic dyestuffs in the late 19th century. Joining the newly founded industry, three companies – CIBA, BCF and Sandoz – were born in the city of Basel, Switzerland. In 1996, CIBA, which had acquired BCF by then, and Sandoz merged to form a pharmaceutical giant, Novartis. Still based in Basel, the company consolidated its business and established presence around the globe, and today it actively operates in more than 150 countries. The company's business is divided into three divisions: Alcon, which concentrates all eye-care treatments and medicines, Sandoz, responsible for producing generic drugs, and Novartis Innovative, which explores new healthcare opportunities. Over time, Novartis managed to assert dominance in the market and, in 2014, it became the biggest pharmaceutical company by revenues.

Recently, the Swiss drug maker has been experiencing problems with patents. Soon some of their leading drugs' patents will expire, threatening the profitability of their production. Moreover, the company has been unable to replace these drugs with new ones, due to research failures. Those were part of the reasons (that combined with unfavorable changes in the currency markets) the firm pointed out to justify the 19% drop in EBIT in 2015 (2017 EBIT has grown 3% YoY instead). The decrease in performance can also be seen in other figures: their revenues dropped almost 7% over the last five years, and their net income by almost 30%. To counteract this negative trend, Novartis is now focusing on its core businesses. It has divested from its vaccines division in 2015 and from the abovementioned consumer health joint venture in 2018. Furthermore, it has recently placed an offer to acquire Advanced Accelerator Applications and now moves to purchase AveXis.

About AveXis

AveXis is a clinical-stage gene therapy company based in Bannockburn, United States. It was founded in 2010 and, since then, has been developing drugs to treat rare and life-threatening neurological genetic diseases, such as spinal muscular atrophy (SMA), Rett syndrome (RTT), and amyotrophic lateral sclerosis (ALS). Its initial product candidate is AVXS-101, a drug aimed at treating SMA Type 1, the leading genetic cause of infant mortality. So far, it has passed a first clinical trial and continues to be tested. AveXis has other drugs in pre-clinical development to tackle ALS and RTT. Moreover, the company takes a proactive approach (i.e. action is taken before symptoms manifest) to deal with patients and their families. For instance, it supports advocacy groups that act in the defense of rare-disease patients and it has partnered up with several organizations which offer resources for the patients.

As it is a clinical-stage company, AveXis has not had any revenue so far. By December 31, 2016, the accumulated loss carried forward item reached $141m, with more than $83m being spent in 2016 alone. That created a loss per common share of $ 3.67. In February of the same year, the company performed a successful IPO raising almost $247m. It allowed the American company to expand its research and development expenses from $58m in 2016 to $150m in 2017.

Industry Overview

The pharma sector has experienced significant growth during the latest years (5.1% expected CAGR from 2013 to 2020), driven by the increase in global healthcare expenditures (which today represent 10% of the global GDP), the rising aging population and the dominance of communicable and chronic diseases. M&A activity has been playing a crucial role, as extremely high development and production costs and widely-spread R&D knowledge are eroding companies' margins, thus paving the way for consolidation.

Pushed by the incredibly long and risky process of obtaining regulatory approval for new drugs, many CEOs see consolidation as the main growth driver, rather than organic growth. Indeed, growing by investing in the internal R&D department is slower and far riskier than buying already-developed products at an advanced stage of approval.

The latest market trend is to shift toward a consumer-focused industry: many companies have started to implement new technologies in order to collect and assess the results provided by personalized medical treatments with the aim of directing R&D investments to the development of the needed products. In addition, improvements in digital and medical communication systems are helping pharma companies to better interface and interact with patients: for example, there exist smartphone apps that aim at surveying patients and tracking progressions of a disease, helping customers to better cope with their needs.

Several other trends are reshaping the sector and building challenges for pharma companies: the surge in medicines demand in emerging economies and the fact that, between 2017 and 2021, $147bn of pharma sales are at risk as patents expiring dates approach. This fact could potentially indicate a second patent cliff for pharma companies, following the 2012 first US market contraction (around 1%), amounting to $55bn in total drug sales lost in one year, tallied by the IMS Institute for Healthcare Informatics and Evaluate Ltd.

Deal Structure

Novartis announced its plan to acquire AveXis for $218 per share, amounting to a total of $8.7bn in cash. Novartis CEO, commenting on the price offered per share, said it was in line compared to preceding and similar deals in the same business, translating into an 88% premium to AveXis' closing price of $115.91 on April 6, 2018, and a 72% premium to the company's 30-day volume-weighted average share price (VWAP).

The acquisition offer was approved unanimously by the Board of Directors of both companies and the transaction closing is expected by mid-2018.

According to the agreement terms and the merger plan, Novartis created "Novartis AM Merger Corporation" (from now onwards NAMMC), an acquisition subsidiary that is going to commence a tender offer by April 17, 2018 aiming to purchase all the outstanding shares of the Chicago-based company as required by law.

The merger contract includes termination clauses regarding both the companies, including a right to back off if the deal will not be concluded by July 6, 2018. Termination fees were set at $284m in case AveXis should appeal to any of the terminating circumstances stated in the agreement, whereas Novartis will be required to pay, as a termination fee, an amount of $437m.

Deal Rationale

AveXis' purchase by Novartis moves along with the series of moves completed by Mr. Narasimhan – Novartis CEO – in the context of his latest strategic plan, with which he intends to further consolidate the drug maker's competitive position in its core business pipelines. The deal falls into place after three big moves have been completed by the pharmaceutical giant in a reduced time span.

Besides fueling Novartis ambitions to become the uncontested global leader in neurodegenerative illnesses, the acquisition of AveXis aims at maintaining the focus on the treatment of pediatric diseases. Moreover, the mutually unanimously approved acquisition would create the conditions to allow for the replacement of Novartis' best-sellers, which is more than likely to take place due to related patents' upcoming expiration.

Strategic reasons shaping negotiations can be found in the US-based company's best-in-class manufacturing and gene therapy expertise. AveXis' treatments serve in fact as weapons to be deployed in the constant fight against rare but deadly neurological genetic diseases – such as Spinal Muscular Atrophy ("SMA"), RETT syndrome and Amyotrophic Lateral Sclerosis ("ALS") – which are precisely Novartis' main research fields.

With just 10% of the children affected by Type I SMA being able to survive beyond the second year of life – it seems reasonable to identify AVXS-101 as transaction's key value driver. In fact, assuming AveXis will deliver on promises, AVXS-101 has the potential to become a breakthrough in muscle wasting diseases, treating SMA by placing "healthy" DNA directly into the single defective gene – the Survival Motor Neuron ("SMN1") – causing the illness, vehiculating it inside a virus.

To date, the biotech company's spearhead has already won therapy designations in the US, Japan, and Europe. On top of that, preliminary clinical studies held on 15 patients also reported exceptionally good results – the entirety of treated infants was event-free by its 20th month of life – if compared to the 8% historical survival rate.

However, AVXS-101 great potential has yet to be proven. Some obstacles are still standing in the way which separates the Swiss Company from its 23.5 thousands patients and multi-billion ($2bn on a yearly basis) revenues dream.

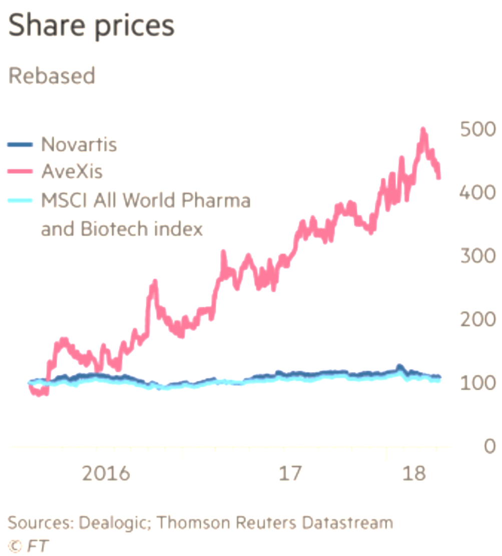
If – according to a smooth as silk scenario – patent availability is foreseen for no later than 2019, the project still needs to be marketed to scale. Moreover, questions have been moved in terms of treatment's affordability, with prices always being new discoveries' most worrying unknowns. Ultimately, concerns based on animal evidence regarding the potential toxicity of the virus through which DNA is channeled into the defective SMN1 have also been raised. On implementation matters, Novartis turned out to be very confident. In fact, always according to the Swiss giant, scaling would not just be easily achievable, but it would also accelerate future therapies' planned launches. AveXis deemed instead the aforementioned experimental findings irrelevant.

Overall, the apparently overestimated success probabilities would, however, seem to be justified by the good cause – and underlying economic potential – driving the investment. Therefore, if on one hand skeptic Novartis' investors must be aware of the operation's risk profile, on the other they should certainly prize their CEO with the benefit of a doubt which could mark a cornerstone in muscular diseases' treatments.

Market reactions

AveXis had lately been catching the attention of even the most skeptic investors, thanks to an incredible 480% increase since IPO in February 2016 and a pre-announcement share price – on Friday 6 April – settling at $115.91. Deal announcement – on Monday 9th – made Nasdaq-listed biotech company's shares skyrocket, closing at $210.46 (+81.6%).

Novartis' Zurich-listed shares reported instead virtually no changes, with a closing price as of Monday amounting to CHF 77.58 from Friday's CHF 77.68 (-10 bps).



Financial Advisors

Novartis's financial adviser on the deal was Dyal Co LLC, while AveXis was advised by Goldman Sachs and Centerview Partners.