

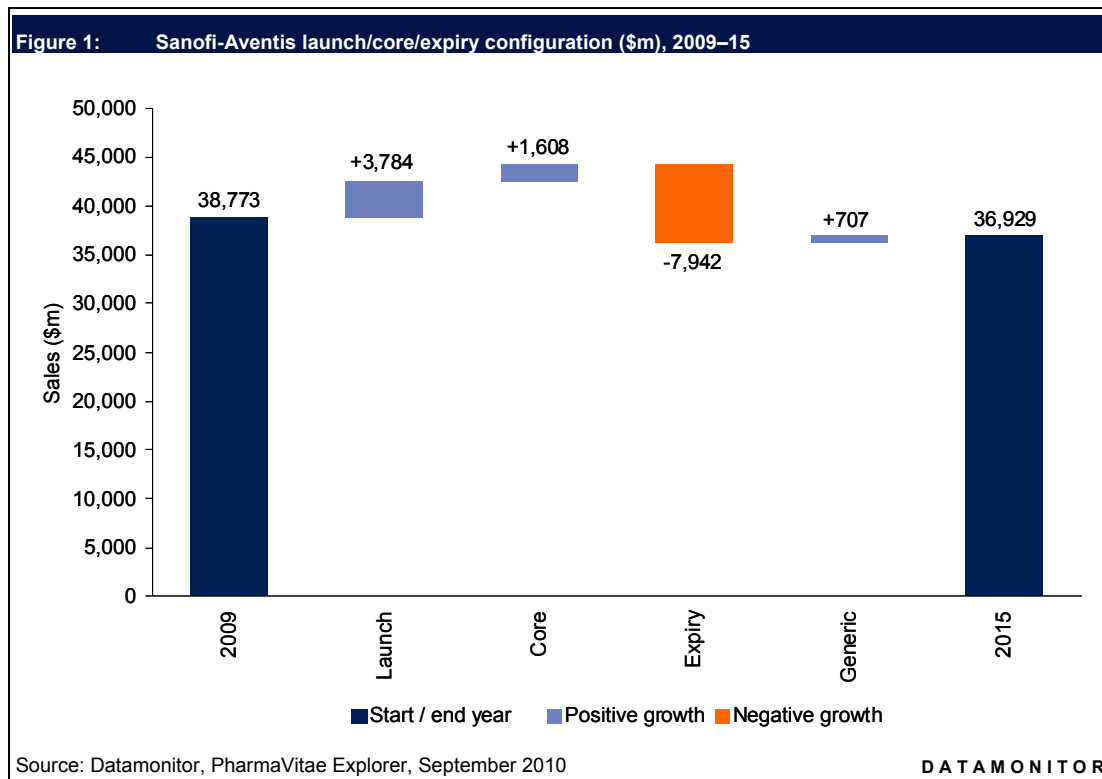


## SANOFI-AVENTIS / GENZYME

Following the announcement on 29th August 2010 by Sanofi-Aventis that it had made an all cash offer worth \$18.5 billion to acquire Genzyme—an offer that was rejected by the US biotech but which looks certain to be followed by further negotiations between the two companies—Datamonitor analyzes the strategic motivations for Sanofi-Aventis's proposed acquisition and how the integration of Genzyme would enhance its existing prescription pharmaceutical business.

### What is driving Sanofi-Aventis's M&A strategy?

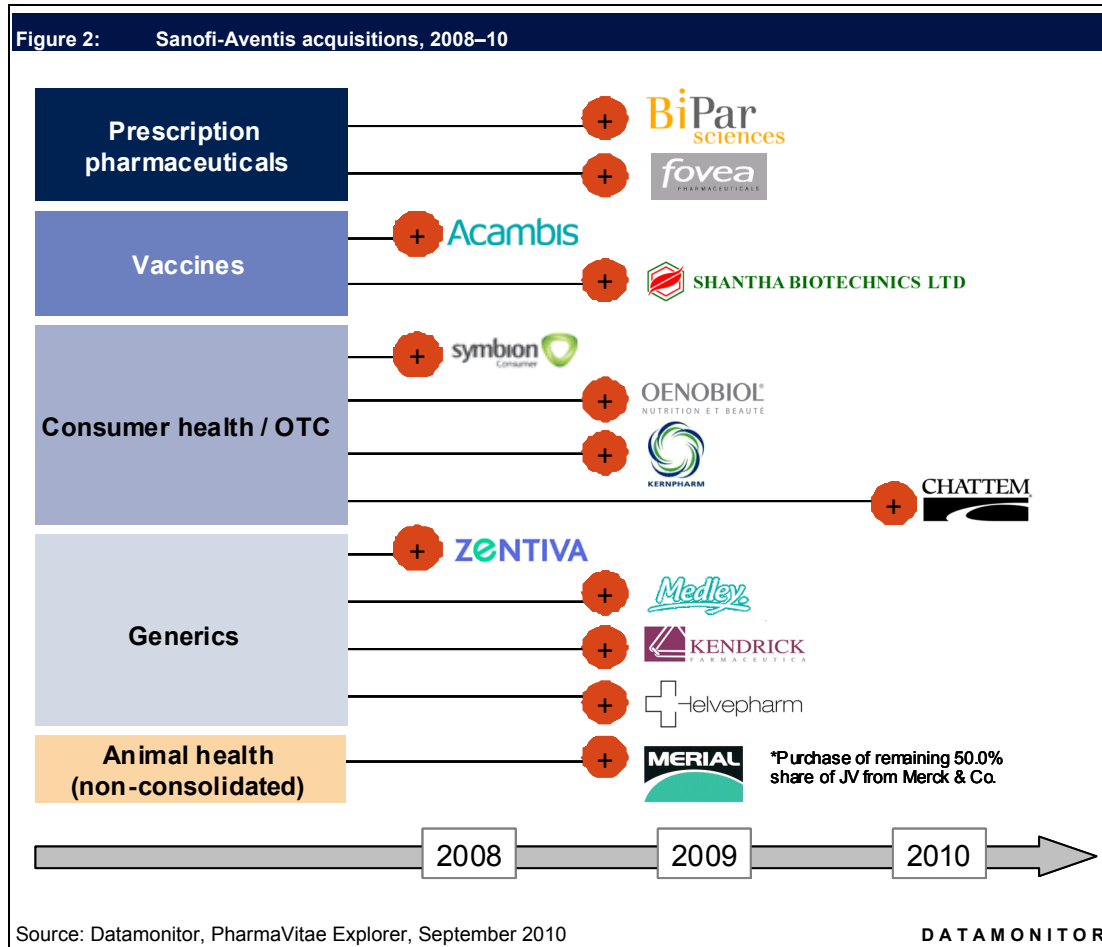
The French pharmaceutical giant Sanofi-Aventis recorded prescription pharmaceutical sales of \$38.8 billion in 2009, positioning the company as the industry's second-largest player. However, Sanofi-Aventis faces a sustained period of negative sales growth driven by patent expiration across key brands in its blockbuster portfolio and the subsequent exposure of these products to generic competition. With new launch products unable to compensate, Datamonitor currently forecasts Sanofi-Aventis's prescription pharmaceutical revenues to decline to \$36.9 billion by 2015, equal to a compound annual growth rate (CAGR) of -1.0%. The impact of the company's expiry portfolio in driving this sales growth rate is illustrated by Figure 1.



The exposure of blockbuster franchises to generic competition has had a profound impact on Big Pharma in recent years, with erosion rates set to intensify further in the short term. From a strategic perspective, the increased threat of generic competition has driven a number of common initiatives including more focused investment on disease areas of high unmet need such as oncology, cost rationalization programs designed to drive profit growth, an expanded footprint in global

emerging markets and a continued love affair with large-scale M&A (best exemplified by Pfizer's acquisition of Wyeth and Merck & Co.'s acquisition of Schering-Plough, both of which were completed in 2009).

Underpinning many of these strategies is the objective of diversification, which has become an integral Big Pharma corporate mantra in recent years. The company that has moved most aggressively to diversify its business model and portfolio offering is arguably Sanofi-Aventis. Its proposed acquisition of Genzyme can therefore be viewed as a major acceleration of its diversification strategy. Furthermore, interest in acquiring the US biotech does not come as a surprise, given that Sanofi-Aventis has completed 11 acquisitions since the arrival of CEO Christopher Viehbacher in 2008.



These acquisitions have primarily acted to enhance Sanofi-Aventis's presence in the vaccines, generics, consumer healthcare and animal healthcare markets, reducing overall reliance on its prescription pharmaceuticals business. Integration of Genzyme would therefore represent an acquisition strategy one-step removed from these other purchases, by allowing Sanofi-Aventis to partially reshape its core prescription pharmaceutical offering.

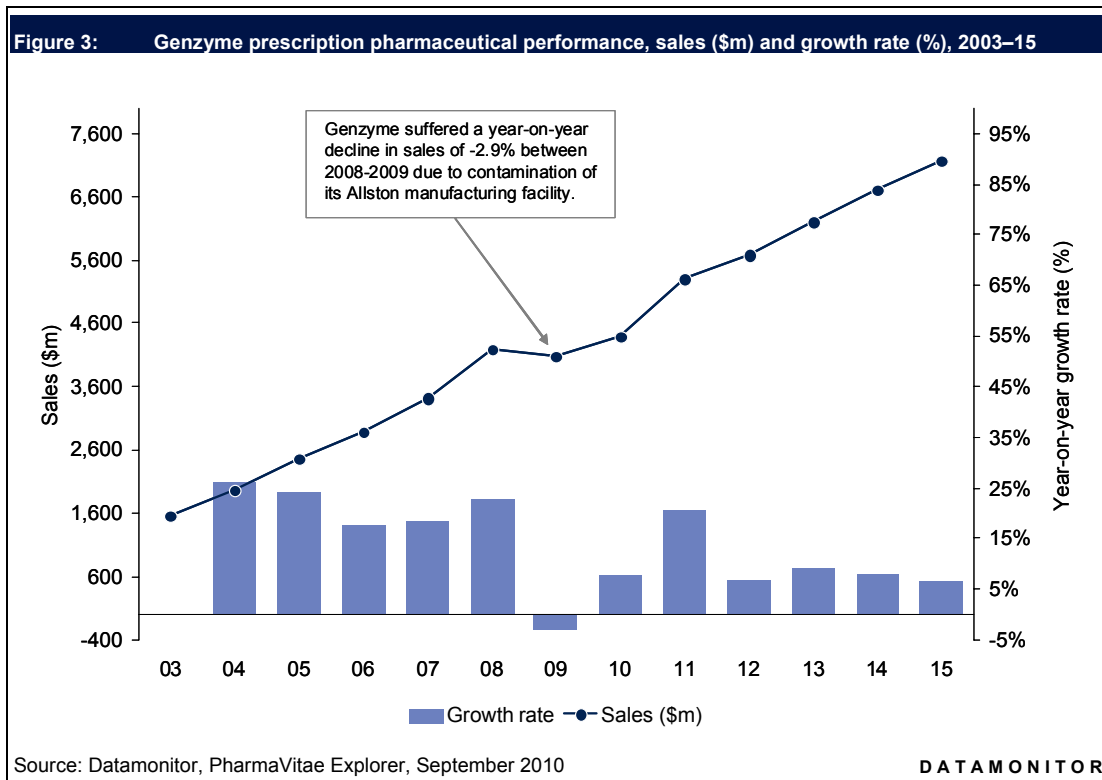
**Why has Genzyme's business attracted Sanofi-Aventis?**

Genzyme's growth strategy is built around the development of products that treat rare diseases and the company is strongly positioned in a number of niche markets which are very lucrative despite low patient numbers. Furthermore, a

number of key brands in its portfolio have been granted Orphan Drug status thereby providing a period of market exclusivity (seven years in the US and ten years in the European Union).

Specifically, Genzyme has developed a position as the global leader in lysosomal storage disorder enzyme replacement therapies (LSDs). By specializing in such niche indications as Gaucher disease (Cerezyme; imiglucerase alpha), Fabry's disease (Fabrazyme; agalsidase beta), and Pompe disease (Myozyme; alglucosidase alpha), Genzyme can effectively operate in a competition-free environment (although in the Gaucher's disease market Genzyme does now face competition from Shire's Vpriv (velaglucerase alpha) given the expiry of Orphan Drug status for its own brand Cerezyme).

In addition, via its own acquisition strategy, Genzyme has expanded its focus into other therapy areas such as end-stage renal disease and oncology. This niche market focus, which is in marked contrast to the traditional Big Pharma operating model, is forecast by Datamonitor to drive Genzyme's prescription pharmaceutical sales from \$4.1 billion in 2009 to \$7.2 billion in 2015: a CAGR of 9.8%.



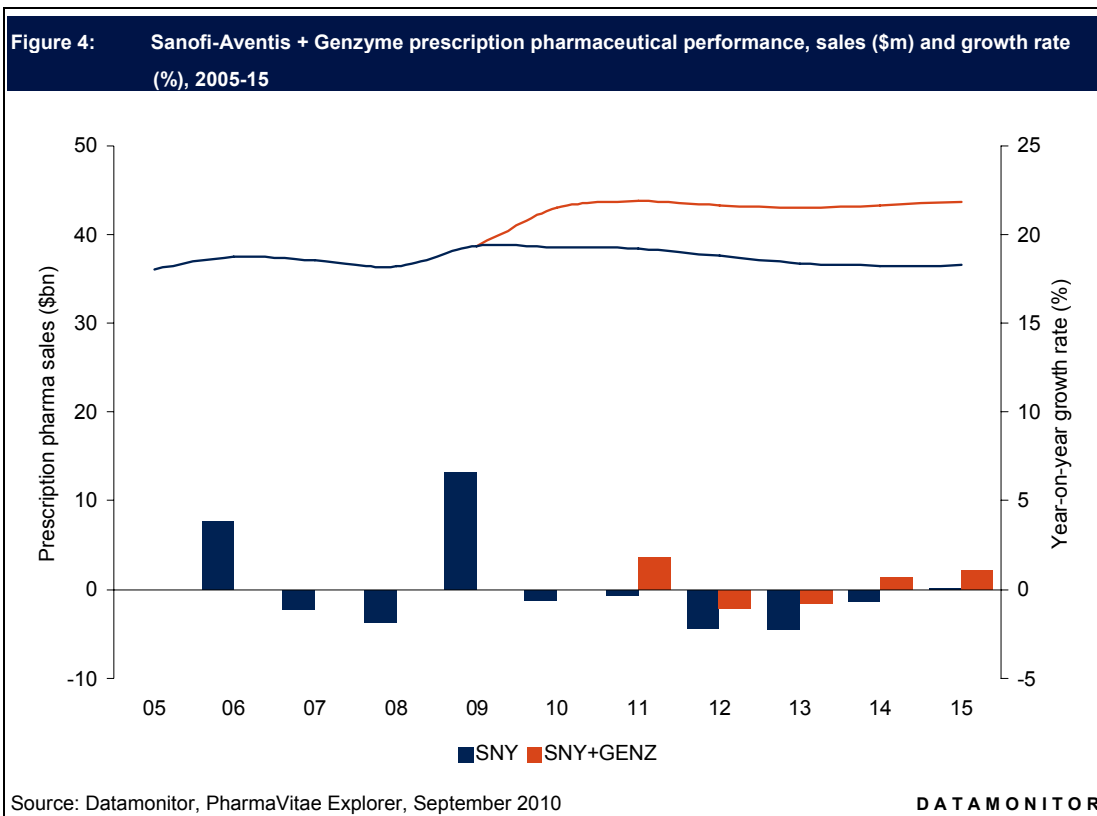
Genzyme has not been without its problems, however, and was forced to temporarily shut down a major manufacturing facility in 2009 when contamination was discovered. Furthermore, the company has recently announced that it could take between three to four years to complete work requested by the US Food and Drug Administration (FDA) to address related quality deficiencies. As a result of the 2009 closure, and with FDA scrutiny very much on the radar, Genzyme's share price fell significantly over a 12-month period, a trend that has fuelled external interest in the company (from Sanofi-Aventis and potentially other suitors).

In response, Sanofi-Aventis's rejected bid of \$18.5 billion was labeled opportunistic by Genzyme CEO Henri Termeer and it appears that uncertainties surrounding Genzyme's clean-up operation at its Allston manufacturing facility could act in slowing the progress of negotiations, if not to act as a full brake on proceedings. In fairness to Genzyme, although such uncertainties are valid concern for Sanofi-Aventis it is debatable as to whether they should be allowed to overshadow the underlying strength of Genzyme's robust niche market business and a promising late-stage pipeline.

### What would Genzyme bring to Sanofi-Aventis?

Should Sanofi-Aventis be successful in its pursuit of Genzyme, integration of the US biotech company will not fundamentally transform its sales growth outlook, in the medium term at least, although it would push Sanofi-Aventis into positive growth. Based on current Datamonitor forecasts, Sanofi-Aventis's prescription pharmaceutical sales CAGR would increase from -1.1% to 0.3% for the period 2010-15 (assuming full year pro-forma 2010 sales).

This muted impact on revenue growth is driven by a number of factors, primarily the disparity in scale between Sanofi-Aventis and Genzyme's total sales coupled with the high level of exposure to generic competition faced by the French company. In short, despite its impressive sales growth outlook through to 2015, Genzyme sales will only plug a gap in Sanofi-Aventis's revenue base over this period, rather than provide impetus for significant sales growth.



In turn, however, Sanofi-Aventis's exposure to generic competition—and the company's strategic rationale to move away from an associated 'blockbuster growth' model—are sufficient justification for its pursuit of the industry's leading niche market player. What Sanofi-Aventis is banking on, is that in addition to plugging its medium term revenue decline,

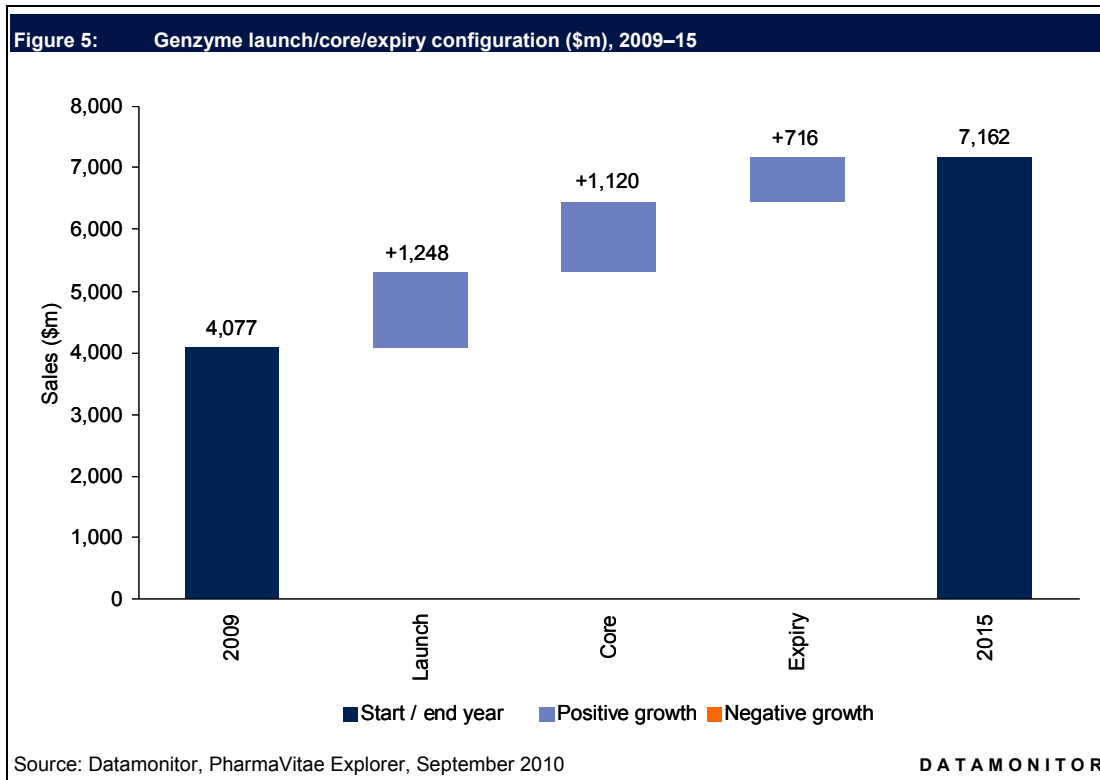
Genzyme will act as a platform for robust and sustainable sales growth in the long term via its status as the industry's leading Orphan Drug specialist.

For those Big Pharma companies—like Sanofi-Aventis—that face flat/negative sales growth over the next five years due to generic exposure, there is no viable fix that will trigger an immediate return to robust revenue expansion. There is no doubt that the industry's leading players are amidst a period of transition caused by exposure to the 'patent cliff', which in turn has necessitated management to rethink core growth strategies. A number of companies have once again chosen to utilize large-scale M&A activity in a bid to counter these increasingly challenging market conditions (Pfizer & Merck & Co.), however, Sanofi-Aventis's move to acquire Genzyme is clearly in opposition to this strategy and would instead represent the latest in a series of 'bolt-on' acquisitions designed to reshape the company's business.

Christopher Viehbacher has spoken out against large-scale M&A on a number of occasions and has also suggested that the accompanying blockbuster growth model has become rapidly outdated and unsustainable. Instead, he is seeking to develop Sanofi-Aventis's presence in segments of the pharmaceutical market that are not so singularly dependent on intellectual property (IP). With this in mind, it is easy to identify the strategic synergy of Genzyme with Mr Viehbacher's over-arching strategy of diversification and his goal of developing and marketing products which have greater insulation from competitive threat (generic or otherwise).

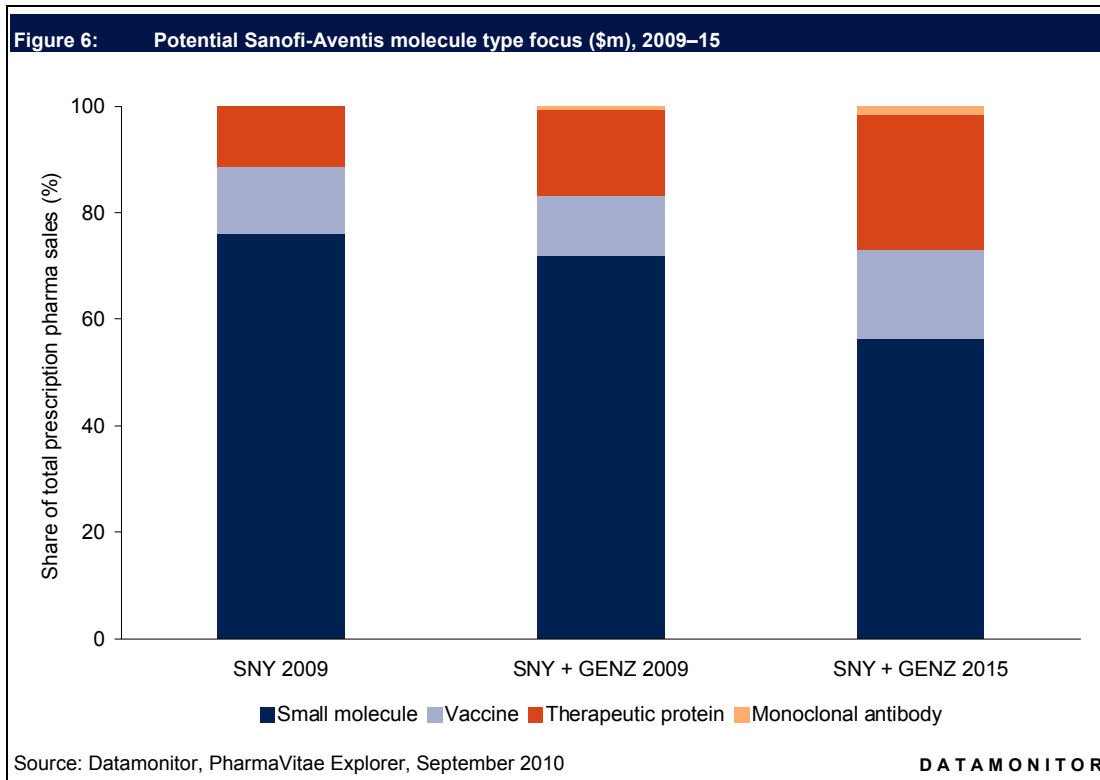
Via its strong focus on rare genetic diseases, key products in Genzyme's portfolio are naturally aligned to a much reduced risk of competitive threat via the potential designation of Orphan Drug status (providing a period of ten years exclusivity in the EU and seven years in the US). Not only does Orphan Drug status allow Genzyme to operate in a competition free market, but has also allowed the company to establish very strong (and necessary) relationships with patients, physicians and health insurance companies on a global scale, thereby enhancing Genzyme's entrenched position in a specific niche disease market prior to the entry of any future competition. Furthermore, Datamonitor attaches a very low risk factor to the likelihood of companies with biosimilar capabilities launching biosimilar versions of Genzyme's lysosomal storage disorder enzyme replacement therapies (LSDs), given the entrenched position of Genzyme brands, the small size of market and highly specialized sales force to support commercialization.

The reduced competitive threat faced by key Genzyme brands therefore allows for the effective extension of a product's lifecycle, mirroring a trend witnessed across other segments of the biologics market and illustrated by the respective revenue contributions from Sanofi-Aventis's (predominantly small molecule) expiry portfolio and Genzyme's expiry portfolio: while Sanofi-Aventis's expiry portfolio is forecast to deliver an absolute decline in sales of -\$7.9 billion between 2009 and 2015 (see Figure 1), Genzyme's expiry portfolio will actually deliver growth of +\$716m over the same period (Figure 5).



It is evident that the acquisition of Genzyme would support Mr Viehbacher’s strategy of developing a product portfolio less exposed to typical generic and/or branded competitor threat, as has Sanofi-Aventis’s continued expansion in vaccines (where it is one of the leading global players) and the spate of recent bolt on acquisitions that have boosted Sanofi-Aventis’s presence in the consumer, generics and animal health markets.

There are a number of additional factors that also support pursuit of Genzyme. In addition to underscoring a strong niche market growth strategy, Genzyme’s portfolio of enzyme replacement therapies (and its other non-small molecule products) would support a definitive move by Sanofi-Aventis into the biologics segment, where it has had a limited presence to date concentrated on two insulin-based diabetes treatments (one of which being the hugely successful Lantus brand). Indeed, Mr Viehbacher was quoted in 2009 as saying that his company had ‘missed the boat’ in terms of diversification into biologics. With robust sales growth forecast across its therapeutic proteins portfolio and an emergent revenue stream via its monoclonal antibody (MAb) offering, Genzyme would represent an opportunity for Mr Viehbacher to correct this strategic lapse. Figure 6 (below) demonstrates how the integration of Genzyme would have an immediate impact on Sanofi-Aventis’s molecule type focus—reducing small molecule dependency, boosting therapeutic protein exposure and introducing MAb revenues—with the column on the far right of Figure 6 demonstrating that further diversification would be achieved by 2015 (albeit with small molecule focus declining partly as a result of Sanofi-Aventis’s exposure to generic competition).



Another positive factor for Sanofi-Aventis is that despite a lack of obvious overlapping business areas that would facilitate significant cost savings, Datamonitor forecasts that Genzyme’s operating profit will increase significantly over the next six years, increasing its margin by +25.9 percentage points, making Genzyme an almost 40% margin business by 2015 (37.0%).

Genzyme’s business model has a true global presence (due to the geographic spread of its rare genetic disorders franchise) and its position in the specialist healthcare community offers unrivalled streamlining opportunities, both in growing newly launched products as well as already marketed products and in return increasing the profitability of these therapies. The expansion of Genzyme’s rare genetic disorders franchise exemplifies these growing economies of scale perfectly. Genzyme’s four key genetic disorder therapies (Cerezyme, Fabrazyme, Aldurazyme and Myozyme) are forecast to generate over \$2.8 billion in sales by 2015, accounting for 40.0% of the company’s total forecast prescription pharmaceutical sales in that year. By developing and launching four therapies that target the rare genetic lysosomal storage disorders of Gaucher, Fabry’s, MPS I and Pompe disease, the obvious business synergies are clear, the most obvious being the manufacture and sales and marketing support of these brands.

All four of Genzyme’s LSDs therapies are manufactured in the same plant, this fact has helped control Genzyme’s historical COGS figure. Additionally, this focus on four, very similar products, will help contribute to the forecast lowering of the company’s overall COGS (as a percentage of sales) over the next six years – with a 2009-15 percentage point decrease of -7.6 forecast by Datamonitor. On the flip side, the contamination problems faced by Genzyme have been accentuated by its usage of one plant to manufacture its key LSD products.

## **Outlook**

Datamonitor is confident that Sanofi-Aventis will reach an agreement to acquire Genzyme over the coming weeks or months, driven in part by Mr Viehbacher's wish to move into market segments better insulated against competitive threat and pressure from Genzyme shareholders to support a deal given the right price. It is worth noting, however, that given the specialist nature of Genzyme's business there remains scope for a rival Big Pharma company to emerge as a 'white knight' bidder.

What is clear is that the majority of Big Pharma players are seeking to diversify away from the historical precedent of a blockbuster-centric growth model with specialist niche markets representing just one area where investment from Big Pharma is set to increase. The sector's leading player—US-based Pfizer—which is often integral to shaping strategic industry trends has already established a specialist care unit focused on niche diseases and announced the acquisition in September 2010 of FoldRX a privately held specialty drug developer targeting protein misfolding. Acquisition of Genzyme would certainly position Sanofi-Aventis at the forefront of this important market.