

Diabetes giant's



Lars Rebien
Sørensen,
president
and CEO

2010 PRODUCT SALES* (first 9 months)

Total sales:
\$7,875M (+17%)

Diabetes care:
\$5,893M (+20%)

Insulin analogs:
\$3,434M (+24%)

Victoza:
\$240M (NA)

Biopharmaceuticals:
\$1,982M (+11%)

Source: Novo Nordisk Q3
2010 results
*Converted to US dollars
from Danish krone

It seems fitting that Novo Nordisk's logo features that blue bull, which happens to be the embodiment of an ancient Egyptian god of science and art but could just as well be a stand-in for Wall Street's taurine animal totem. With operating profit up 24% for the first nine months of 2010, this fusty 85-year-old Danish firm, owned by a nonprofit foundation and known mainly for producing a type of medicine invented 90 years back, has become one of the hottest stocks in the pharma sector.

Novo Nordisk's steady focus on diabetes has made it a fast-growing powerhouse, posting jaw-dropping sales figures and hiring as the rest of the sector downsizes. Sales of Novo Nordisk's analog insulins, accounting for 42% of overall sales, have more than tripled in the past five years, and the company now boasts half of the global market for insulins.

Last year, it launched Victoza, a GLP-1 drug that swiftly bested rival Byetta, from Lilly and Amylin.

Novo Nordisk now expects Victoza to become a blockbuster in 2012 and, with FDA encouragement, restarted clinical trials for a possible obesity indication.

If that weren't audacious enough, obesity being a kind of pharmacological graveyard of empires, the firm is also working on stem cells toward treatments they hope could lead to a cure.

"We try to understand the needs of the people with diabetes and, based on that, how we can develop our products and administer our products in a way that makes their lives more easy,"

focus pays off

Once-daily Victoza® Help grab type 2 diabetes by the roots.

Indications and usage
Victoza® is indicated as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus. Because of the exceptional relevance of the rodent thyroid C-cell tumor findings to humans, prescribe Victoza® only to patients for whom the potential benefits are considered to outweigh the potential risk. Victoza® is not recommended as first-line therapy for patients who have inadequate glycemic control on diet and exercise. In clinical trials of Victoza®, there were more cases of pancreatitis with Victoza than with comparators. Victoza® has not been studied specifically in patients with a history of pancreatitis to determine whether these patients are at increased risk for pancreatitis while using Victoza®. Use with caution in patients with a history of pancreatitis.

Important safety information
Liraglutide causes dose-dependent and treatment-duration-dependent thyroid C-cell tumors at clinically relevant exposures in both genders of rats and mice. It is unknown whether Victoza® causes thyroid C-cell tumors, including medullary thyroid carcinoma (MTC), in humans, as human relevance could not be ruled out by clinical or preclinical studies. Victoza® is contraindicated in patients with a personal or family history of MTC and in patients with Multiple Endocrine Neoplasia syndrome type 2 (MEN 2). Based on the findings in rodents, monitoring with serum calcitonin or thyroid ultrasound was performed during clinical trials, but this may have increased the number of unnecessary thyroid surgeries. It is unknown whether monitoring with serum calcitonin or thyroid ultrasound will mitigate human risk of thyroid C-cell tumors. Patients should be counseled regarding the risk and symptoms of thyroid tumor.

VICTOZA®
liraglutide (rDNA origin) injection

Please see accompanying Prescribing Information and additional important safety information, including boxed warning, throughout and on pages 14 and 15.

FlexPen®
Insulin delivery that's going places, just like you

In a restaurant, at work, even at home, FlexPen® follows.
A discreet, prefilled, dial-a-dose insulin pen.

Needles are sold separately and may require a prescription in some states. Needles and FlexPen® must not be shared.

Please see important safety information inside. Please see enclosed Levemir®, NovoLog®, and NovoLog® Mix 70/30 Prescribing Information.

Levemir® FlexPen® **NovoLog® FlexPen®** **NovoLog® Mix 70/30 FlexPen®**

Novo Nordisk

Above left: Novo Nordisk expects Victoza to become a blockbuster next year; above right, FlexPen, the latest from the inventors of the insulin pen; below: Charlie Kimball Tweets their virtues

says president and CEO Lars Rebieen Sørensen. “And as we’ve been working on it for almost 90 years we’ve been practicing a lot.”

That might sound like standard customer relationship management boilerplate, but consider that Novo Nordisk introduced NovoPen, the first insulin pen, in 1985, and popularized pens in the US.

“It’s very personal to the person with diabetes because they use it sometimes three or four times a day, so administration becomes a barrier, a convenience issue,” says Sørensen. “That’s why we invented the pen systems, so that instead of having a product that looked like a very medicinal type of therapy with a vial and a syringe, you put a pen in your pocket

DIABETES DOMINANCE

- Share of global insulin market:** 51%
- Share of US insulin market:** 42%
- Share of global insulin analogs:** 46%

Source: Novo Nordisk Q3 2010 results

and you could have your insulin with your meal and you wouldn’t have to feel socially excluded.”

Though renown for clever marketing efforts making great use of digital channels—racer Charlie Kimball’s Twitter feed, for example, or the WhereHaveYouFlexed contest for FlexPen—the company’s advertising budget is a shadow of those boasted by competitors like Lilly and Sanofi-Aventis. “Marketing is obviously extremely important in terms of getting across the virtues of

our products,” says Sørensen. “But in reality, what we’d like to convey is credibility and trust in our products. We’re dealing with chronic disease, so we’re building lifelong relationships with our customers. They use our products for life and their lives depend on them. So, it’s not savvy marketing or gimmicks but very serious messages we’re trying to convey. But we also realize that to get that across you have to cut through a lot of noise, so it has to be combined with some stopping power and novelty.”

While they may go easy on the advertising, the company boasts a world-class sales force—one which has played a large role in helping it carve out a 42% share of the US insulin market. Novo Nordisk ramped up its sales force rapidly starting in 2000, when it had a mere 165 US reps, to compete with Lilly.

“We started saying, ‘This is not going to work. We have to either partner or expand our sales force.’ So, we moved rapidly to 1,000 and then moved on from there.”

At around the same time, says Sørensen, Lilly shifted focus away from the diabetes market in favor of its suddenly lucrative CNS portfolio.

“Obviously it was important for us to get a better foothold in the US, but we struggled for years, because Lilly was a very important player here and had very good relationships with and educated most of the endocrinologists,” says Sørensen.



2010 Media spend by brand

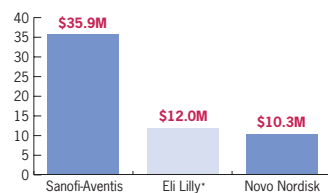
12 months ending Aug. 31, 2010

Brand	Journal spend	DTC spend	% Total media spend
Levemir FlexPen	\$4.46M	-	43.5%
Victoza	\$2.89M	\$0.01M	28.1%
NovoLog FlexPen	\$1.43M	\$0.28M	16.5%
Vagifem	\$0.89M	-	8.7%
Activella	\$0.23M	-	2.2%
NovoLog Mix FlexPen	\$0.12M	-	1.1%
NovoLog Mix 70/30	\$0.09M	-	0.9%
Disease state (diabetes)	\$0.07M	\$0.76M	8.1%
Disease state (hemophilia)	\$0.04M	-	0.4%
Novoseven RT	\$0.04M	-	0.4%
Levemir	-	\$0.21M	2.1%
Multiple products	-	\$0.16M	1.5%
Non-product specific	-	\$0.01M	<0.1%

Source: SDI & Kantar Media

Potent advertiser

Despite owning a 42% share of the US insulin market, Novo Nordisk spends far less on advertising than its rivals (Sanofi-Aventis, Eli Lilly) in the diabetes space



Note: Includes DTC and journal spend for products approved to treat type 1 or type 2 diabetes, as well as ads for this disease state
 * Includes media spend for co-marketed product, Byetta
 Source: SDI & Kantar Media data



Sørensen tells **MM&M** he's hopeful his company will produce a cure for diabetes by 2025

“So, their products had tremendous brand loyalty. They became very successful in the CNS area with Prozac and later Zyprexa, and that created a vacuum that allowed us and Sanofi-Aventis to enter into the market, with a combination of the right people, the right leadership and an expansion of sales and marketing. And now we’re not going to give it up again.”

The company saw sales increase 25% in 2009 for North America, which, in contrast to most disease categories, is a huge growth market for diabetes care. In 2008, Novo Nordisk announced an expansion of its LEED Silver-certified US headquarters in Princeton to accommodate a 150% increase in employees based there over the previous five years, and this year the firm said it would invest \$73 million in a Clayton, NC manufacturing plant to meet demand for its insulin delivery systems, creating 205 jobs in the process. The scale of diabetes’ advance in the US, while great for sales of Novo Nordisk’s products, is daunting.

“In my view, it’s the biggest public health problem we’ve ever faced in the world,” he says, and faced with numbers like that, it’s hard to dismiss it as hyperbole. There are, he notes, more legs lost to diabetes in India—40,000 a year—than to landmines all over the world each year. There are 23 million people in the US with diabetes, according to the American Dia-

2010 HIGHLIGHTS

- Sales up 17% for first nine months of 2010 on Victoza, NovoLog and Levemir growth
- Restarted clinical trials for Victoza obesity indication while pursuing Victoza-plus-insulin indications
- Moved up projected Victoza sales of \$1 billion two years to 2012
- Launched Victoza and FlexPen DTC campaigns
- Announced \$73 million expansion of US manufacturing facility on increased sales of insulin delivery devices

betes Association, and about 90% of those cases are type 2 diabetes, which is caused by a combination of genetic predisposition and diet (another 57 million Americans are pre-diabetic).

“But we have to realize that there is a group of individuals that, regardless, continues to put on weight seriously, so much that at a certain point it’s irreversible and for health reasons they need intervention,” says Sørensen. Right now, he adds, their only real option is bariatric surgery. That group—around 20 million people in the US with a body mass index of 35 or more, dyslipidemia and hypertension—is the group Novo Nordisk would target for an obesity indication for Victoza, which is already marketed with language suggesting that it “may help lower your weight.”

Sørensen, who cycles 10 miles to work in suburban Copenhagen, is qualified to talk about the lifestyle changes needed to head off such grim forecasts for diabetes, and he’s hopeful that we can change our unhealthy ways, but he also sees hope in the science. When he took over as CEO 10 years ago, Sørensen vowed that the company would find a cure in his time at the helm. He now concedes that was a bit premature. “I think it’s still 10, 15 years into the future,” he says, pointing to the company’s work with embryonic stem cells to understand how they become insulin-producing cells. “It’s not inconceivable.” —*Matthew Arnold*