

29 Nov 2023 | Interviews

The New Challenge For The Architect Of Wegovy

by Kevin Grogan

Mads Krogsgaard Thomsen, CEO of the Novo Nordisk Foundation and the man who supervised the development of semaglutide, describes the unprecedented growth of the obesity market and what might come next for Novo.

Few people are better placed to comment on the phenomenon that is [Novo Nordisk A/S](#)'s stunning growth in the past couple years with Ozempic and Wegovy than Mads Krogsgaard Thomsen, the man who supervised the development of the diabetes and obesity blockbusters and is now the CEO of the foundation that controls the Danish drugmaker.

Thomsen, who served over 20 years as chief scientific officer at the Copenhagen-based group, was appointed as CEO of the Novo Nordisk Foundation in March 2021. Speaking at a recent international press event held at the foundation's headquarters in the Danish capital, he said that in particular "nobody would have expected" such a successful launch for the obesity drug Wegovy (semaglutide injection 2.4mg), noting that a classical marketing model had not been necessary because the GLP-1 agonist "is just being pulled off the shelf."

He added that the company could be forgiven for not predicting such an impact as Wegovy was the first entrant into "a market that didn't exist," given that previously the only clinical option for obese people was bariatric surgery. "It's been a big surprise that certain people are talking about a \$100bn market and it has happened almost overnight," he added.

Whether that \$100bn forecast proves to be fanciful remains to be seen but what is certain is that the fortunes of the Novo Nordisk Foundation are going to be transformed by the spectacular commercial success of the weight loss blockbuster, notwithstanding the manufacturing issues Novo Nordisk is addressing for the drug.

Thomsen noted that the windfall coming from Ozempic and Wegovy has given Novo Nordisk "much more ability to do more transformative things" in the M&A area, noting the recent EU approval of Rivfloza (nedosiran), the lead product from its late 2021 acquisition of Dicerna

Pharmaceuticals, for primary hyperoxaluria. (Also see "[RNAi Returns To Spotlight As Novo Nordisk Swoops For Dicerna](#)" - Scrip, 18 Nov, 2021.) He said that by using its considerable funds on innovative deals, the company "has many more horses to bet on." In the last couple of months, Novo Nordisk has been expanding its presence in the obesity field with the acquisitions of Inversago Pharma and Embark Biotech. (Also see "[Deal Watch: Novo Nordisk Builds On Metabolic Strength Acquiring Partner Embark](#)" - Scrip, 30 Aug, 2023.)

"It's been a big surprise that certain people are talking about a \$100bn market and it has happened almost overnight."

These types of deals will help Novo Nordisk prepare for a time when semaglutide will not be such a cash cow, Thomsen noted, giving the example of AbbVie's ability to replenish its pipeline while skilfully managing the life cycle of the \$20bn mega-blockbuster Humira (adalimumab). He is also excited about the prospects of label expansions for semaglutide, highlighting the recent full set of stellar data from the SELECT cardiovascular outcomes trial (a study he helped initiate in 2018) and has particularly high hopes for the drug's potential in obese patients with heart failure with preserved ejection fraction. (Also see "[The FLOW Of Novo Nordisk's Semaglutide Success Rolls Into Kidney Disease](#)" - Scrip, 11 Oct, 2023.)

He pointed out that Novo Nordisk and fellow metabolic disease giant [Eli Lilly and Company](#), which has just got US approval for its GIP/GLP-1 drug Zepbound (tirzepatide), "are investing as if there were no tomorrow" to meet demand for their products. His old employer is spending more than DKK42bn (\$6bn) to expand its existing manufacturing facilities in Kalundborg, Denmark, and Thomsen said that being able to produce high yields at lower cost will mean that access will be improved in the major markets and elsewhere; once the next generation of obesity drugs have been developed, the capacity will then be in place for Novo Nordisk to offer its older GLP-1 analogues to the world's poorest countries "at dirt cheap prices."

Novo's Philanthropic Mission

The company will not have any significant earnings from those poorer countries "and it can make profits from the new generation of products in Europe, the US and countries that can afford it. This shows that there is actually indirectly an affordability benefit for low-income countries in us pursuing innovation," Thomsen said.

While Novo Nordisk has tried to demonstrate that societal responsibility and profit can go together, the foundation that Thomsen now heads also has a three-pronged philanthropic mission. He has been instrumental in setting the direction for how the foundation wishes to

contribute to society towards 2030 and has helped identify the three areas for its grant-awarding activities, namely sustainability, the life sciences ecosystem and health with, unsurprisingly, a focus on the prevention and treatment of cardiometabolic and infectious diseases.

"There is actually indirectly an affordability benefit for low-income countries in us pursuing innovation."

Denmark is a focal point for most of the foundation's grants but one partnership that Thomsen is especially enthusiastic about is the Novo Nordisk Foundation Center for Genomic Mechanisms of Disease, an initiative with the Broad Institute in Cambridge, MA, and supported by a grant of up to \$47.5m. A key activity of the center is to facilitate close collaborations between the Broad and researchers at Danish universities, with an initial focus on understanding type 2 diabetes and obesity and mapping human gene regulation.

Thomsen said that at the foundation's Center for Basic Metabolic Research at the University of Copenhagen, "we have really got to grips with a lot of things for more than a decade but we didn't quite understand how it all relates to the genes in our body." Citing Broad's pioneering role in the Human Genome Project, he said that "the idea was to team up with the best in the world and get the best out of them. They had the same feeling about us, that we were strong on the biochemistry front and what was happening inside cells, so it is a happy marriage."

He quipped that when he asked minister of finance Nicolai Wammen "what was his feeling about us taking DKK300m out of Denmark and giving it to Boston, he just smiled and said, 'That's absolutely fine because it will also strengthen the Danish ecosystem'."

Taking A Wider View

In addition to cardiometabolic diseases, the foundation is also focusing on epidemic preparedness and the board is expected to sign off shortly on the €200m Initiative for Vaccines and Immunity which hopes to generate knowledge on a variety of technologies and translate it into vaccines that provide broad immunity against respiratory pathogens. Its mission also involves fighting inequality in health and Thomsen noted that the Wegovy windfall means more funds for the food programs the foundation runs in Rwanda and Uganda among other places, "providing healthy school meals and supporting the local farmers that produce them, creating a whole ecosystem."

Although there are certain elements about his time as Novo Nordisk R&D chief that he misses (Thomsen got wistful talking about the excitement of being among the first people to hear positive results from major pivotal trials), the broader goals of the foundation and moving

beyond human into planetary health holds great appeal for the 62-year-old Dane. He is equally enthusiastic talking about the foundation's efforts to fight the impact of climate change and its quantum computing programs in collaboration with the Niels Bohr Institute as he is outlining initiatives to promote healthy weight in teenagers.

Thomsen is also enjoying his blooming friendship with Bill Gates. "The first thing he said when he met me was 'All I know about your foundation is that your company makes Wegovy' and I had to educate him a bit that we are much more than Wegovy," he recalled, and now there are a number of projects up and running with the Bill & Melinda Gates Foundation.

The foundations recently joined forces to set up a two-year \$29m R&D project aimed at creating a sustainable source of protein for human food derived from CO₂. The Gates Foundation has also awarded a grant to launch an initiative focused on women's health care to the Danish foundation's BioInnovation Institute and the two are also working together with Open Philanthropy on the Pandemic Antiviral Drug Discovery initiative.

"We meet quite a lot and there are so many smart people in his foundation. With the sheer amount of brains he's been able to put together, as we also have done in our foundation, it produces a lot of creativity when you're sitting for two or three days together, breaking out into workshop sessions and discussing what could be done," Thomsen concluded.