

Changing of the guard

*Hannah Kuchler & Leila Abboud: The Financial Times,
16 February 2021*

As Pharmaceutical companies raced to develop Covid-19 vaccines, crossing the finishing line in record time, the world's three biggest vaccine makers were also-rans. GlaxoSmithKline, Merck and Sanofi are now left playing catch-up, after upstarts including Moderna and BioNTech demonstrated their mastery of new technologies that will shape the industry for years to come. Merck & Co recently dropped its vaccine development programme completely, while Paris-based Sanofi and the UK's GSK are having to redo an early-stage trial of the jab they are jointly developing, after a dosing mistake. According to Zain Rizvi, a medicine access researcher at advocacy group Public Citizen, the "immense scarcity" of vaccines around the world is directly connected to these big pharma groups being "missing in action". The vaccine market already looks completely different this year - and depending on variants in the virus that causes Covid-19 and the need for boosters, some of the changes could stick.

Dominated

In 2020, GSK, Sanofi, Merck and Pfizer dominated the market with best-selling vaccines for flu, pneumonia, HPV and shingles. Among the top vaccine makers, only Pfizer has a successful Covid-19 vaccine, developed with German company BioNTech. This year, life sciences data platform Airfinity forecasts Pfizer will triple its vaccine revenue thanks to its Covid-19 vaccine, while vaccine sales at Novavax and Moderna will overtake those at Merck, GSK and Sanofi.

Even the cheaper vaccines from AstraZeneca and Johnson & Johnson means they are forecast to generate more vaccine sales in 2021 than some of the top four did in 2020. The share prices reflect this dramatic change.

Since the start of 2020 Novavax has rocketed more than 6 400 percent, Moderna is up over 850 percent and BioNTech more than 190 percent. GSK, Merck and Sanofi shares have fallen between 13 percent and 30 percent.

New technology

It is the new messenger RNA technology - which instructs the body to make part of the virus to provoke an immune response - used by BioNTech/Pfizer and Moderna that has ripped up conventional timelines and allowed them to produce trial vaccines for testing within weeks. But their success was far from assured: before the pandemic, no mRNA vaccine had ever been approved and in May, Ken Frazier, Merck's CEO, said the idea of producing a new vaccine in 12 to 18 months was "very aggressive". Less than a year on, mRNA vaccines look likely to change the industry forever. For the interlopers, the crisis was an opportunity. Peter Hotez, a vaccine expert at the Baylor College of Medicine, said they had more to gain, so pushed hard for regulatory acceptance and financial support from governments.

Some suspect the big three vaccine makers may have also been wary of being distracted from their core businesses by wholeheartedly pursuing a Covid-19 vaccine. Previous epidemics, including Sars and Mers, had run their course before a vaccine was ready or pharma groups had even been able to complete trials.

'Once bitten, twice shy'

Rizvi said the failure of three of the largest vaccine producers in the world to take a crisis seriously and respond with an all-hands-on-deck response is indicative of the larger failure in the industry business model to prioritise public health needs. Hotez said it may have been a case of "once bitten, twice shy".

Sanofi spent more than a decade developing a dengue fever vaccine, but it flopped after it raised the risk of the disease in some children. GSK invented the first malaria vaccine - but it took 30 years. Merck's Ebola vaccine had been a "humanitarian triumph" - but it was not a money-maker. Dan Mahony, who co-leads the healthcare business at Polar Capital, said that until about 15 years ago, vaccines had been a "backwater". New growth products such as Merck's Gardasil, for HPV, and GSK's Shingrix, for shingles, "broke the mould", he said, but they were not enough to entice companies to pour money into development. When pharma companies were retrenching 10 years ago, he suspects early-stage vaccine programmes were among those cut. Instead, drug makers have invested in blockbuster drugs to treat cancer and rare diseases, where technological leaps have fuelled demand and higher prices. Even a year ago, vaccines were still seen as "stable, good businesses" but "unsexy", said Laura Sutcliffe, an analyst at UBS. That has all changed and investors are paying more attention, she said.