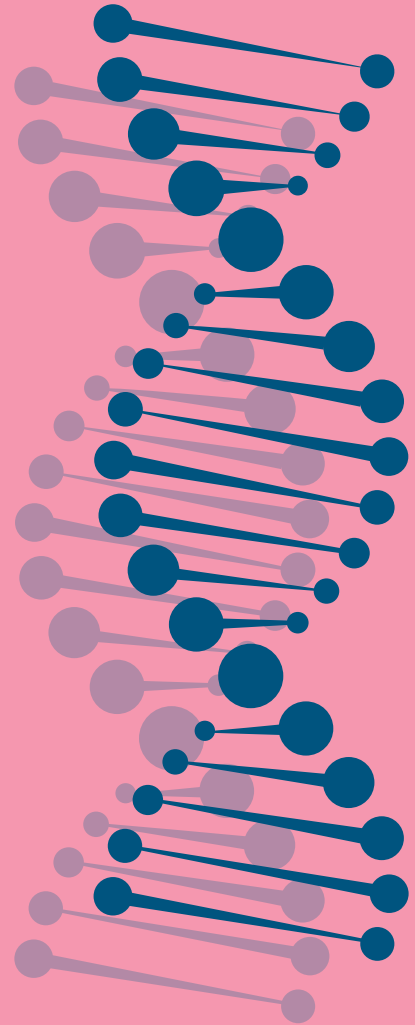


GERM™

PORTFOLIO UPDATE

Focusing on companies developing infectious disease vaccines, treatments and testing.

This research note covers the companies in the battle against infectious diseases, and whose stocks are components of the Prime Treatments, Testing and Advancements Index (PGERM). PGERM is the only index that tracks the performance of an emerging growth area within the broader life sciences sector: infectious disease vaccines, treatments and testing. The index includes companies engaged in research, development, and commercialization of: 1) treatments or vaccines for infectious diseases, and 2) biological testing for discovering infectious diseases.



February 2022

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Company	Symbol	Category	PGERM Weight*
Arcturus Therapeutics	ARCT	Treatments	0.51%
Pfizer	PFE	Treatments	0.92%
BioNTech	BNTX	Treatments	4.05%
Hologic	HOLX	Testing	0.94%
ImmunityBio	IBRX	Treatments	2.19%
LabCorp	LH	Testing	7.51%
Moderna	MRNA	Treatments	4.15%
Novavax	NVAX	Treatments	2.97%
Ocugen	OCGN	Treatments	0.61%
Orasure Technologies	OSUR	Testing	0.50%
Quest Diagnostics	DGX	Testing	4.68%
SAB BioTherapeutics	SABS	Treatments	0.18%
Sanofi	SNY	Treatments	1.09%
Vir Biotechnology	VIR	Treatments	3.31%

February newsflow for infectious diseases companies was dominated by Covid-19 updates for either vaccines or treatments; however, some companies are also making important progress in other infectious diseases like HIV, Lyme’s disease and Malaria.

San Diego, California-based **Arcturus Therapeutics** (Ticker ARCT; PGERM Weight 0.51%) announced new data for its Phase I/II booster trial for two potential vaccine candidates ARCT-154 and ARCT-165 in late January. Data showed that after a low dose was administered 5 months after Pfizer’s vaccine, there was around a 50-fold increase of neutralizing antibodies against the omicron variant. These findings are a boon for the company’s pursuit of vaccines and booster candidates for different variants of

concern. The company said these results also increase the platform’s potential to address Covid-19 in its endemic phase as well as other infectious diseases.

Pfizer (Ticker PFE; PGERM Weight 0.92%) and **BioNTech** (Ticker BNTX; PGERM Weight 4.05%) continue to pursue age expansions for their mRNA Covid-19 vaccine Comirnaty as Pfizer initiated a rolling submission in late January to get the vaccine a US emergency use authorization in children aged 4 years down to 6 months. Additionally, Pfizer announced it was studying an Omicron-based vaccine candidate in healthy adults aged 18-55, which could determine the future potential of variant-based vaccines. As reported in its full year 2021 earnings, Pfizer made \$81.3 billion,** of which \$37 billion were Comirnaty sales, so further vaccine pursuits will be an important part of its 2022 revenue story. Aside from Covid, the company also announced positive Phase II data for Lyme’s disease on February 1st – an illness that the industry has failed to address in the past – and plans to start a Phase III trial in 2022.

Hologic (Ticker HOLX; PGERM Weight 0.94%) released its first quarter fiscal 2022 earnings on February 2nd and overall revenues of \$1.47 billion*** decreased 8.6% due to the lower sales of its Covid-19 assays compared to 2020. However, the company grew 9% when Covid-19 revenues were excluded. The company has guided to full fiscal 2022 revenues increasing by \$600 million as it expects some upside for Covid-19 testing along with organic growth from its base diagnostic and surgical businesses.

Culver City, California-based **ImmunityBio** (Ticker IBRX; PGERM Weight 2.19%) announced positive clinical data towards a HIV cure, with its IL-15 superagonist Anktiva which adopts a “kick” and “kill” approach to HIV infected cells by activating CD4+, CD8+ T cells and natural killer cells. HIV is still seen as a huge healthcare

*Index holdings and weight subject to change without notice. **Source: [pharmaceutical-technology.com](https://www.pharmaceutical-technology.com) ***Source: [businesswire.com](https://www.businesswire.com)



burden with an estimated 38 million people around the globe living with HIV, and requiring a costly annual supply of antiretrovirals. The data is still early, but multiple studies are ongoing in Phase I and II, giving it a better chance of succeeding either alone or in combination therapy.

Burlington North Carolina-based **Labcorp** (Ticker LH; PGERM Weight 7.51%) announced a comprehensive

TOP NEWS

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strategic partnership with non-profit health system Ascension to manage its hospital-based laboratories in 10 states and purchase select assets of the health system’s outreach laboratory business. This is a significant expansion of LabCorp’s clinical laboratory services. The arrangement covers Alabama, Florida, Kansas, Maryland, Michigan, New York, Oklahoma, Tennessee, Texas and Wisconsin.

Boston, Massachusetts-based **Moderna** (Ticker MRNA; PGERM Weight: 4.15%) received the coveted full FDA approval of its Covid-19 vaccine on January 31st after the agency reviewed a comprehensive package showing safety and efficacy six months after the second dose. The vaccine can now be marketed as Spikevax and the officially approved label could be a meaningful boost to

sales considering its vaccine has a slightly stronger efficacy profile over Pfizer’s mRNA vaccine. The company also announced that its Phase II study of its omicron-specific booster candidate had enrolled its first patient.

Gaithersburg, Maryland-based biotech **Novavax** (Ticker NVAX; PGERM Weight 2.97%) has made significant strides in expanding its authorisations for its widely anticipated protein-based Covid-19 vaccine. It received an authorization in Australia on 19 January and both the UK and New Zealand on February 3rd. A submission was made to the US FDA on January 31st and should it win an authorization, strong uptake is possible among the unvaccinated or those needing a booster dose. It’s more established vaccine mechanism is appealing from both a safety and efficacy durability standpoint. An advanced purchase agreement from Israel on January 28th, for 5 million doses, is an indication of the demand for this type of vaccine even in countries with a high saturation of first-generation vaccines.

Malver, Pennsylvania-based **Ocugen** (Ticker OCGN; PGERM Weight: 0.61%) signed a letter of intent with Canadian company Liminal BioSciences to acquire its manufacturing site in Ontario for an undisclosed amount. This purchase expands Ocugen’s manufacturing and R&D capabilities for its pipeline which includes manufacturing inactivated vaccine Covaxin – originally developed by India’s Bharat Biotech. Covaxin was submitted to Health Canada for regulatory review and is waiting to enter a Phase III trial in the US. This vaccine would add another more established vaccine modality to the Covid-19 vaccine armamentarium, which is currently dominated by the novel mRNA vaccines.

Bethlehem, Pennsylvania-based home diagnostic testing firm **Orasure Technologies** (Ticker OSUR; PGERM Weight: 0.50%) announced in late January that

it launched an oral at-home test for HIV-1 and HIV-2 in Europe and will be available in six European countries. Its OraQuick test is the world’s first at-home ‘oral’ HIV Test, which offers a pain-free relief to other finger-prick HIV self tests. Orasure’s stock rose 8% following the news.

Secaucus, New Jersey-based **Quest Diagnostics** (Ticker DGX; PGERM Weight: 4.68%) reported its 2021 earnings on February 4th and the company hit a record year of revenues driven by Covid-19 testing. Full year revenues were \$10.8 billion which was up 14% from 2020. While Covid-19 revenues were \$2.77 billion in 2021* (a 1.7% increase from 2020) the company expects Covid-19 testing revenues to drop dramatically in 2022, as much as 75% to \$0.7 billion. That is assuming the pandemic will start to settle after the recent omicron wave. However, base business revenues also experienced a record year and are expected to grow 3.5-6% in 2022.

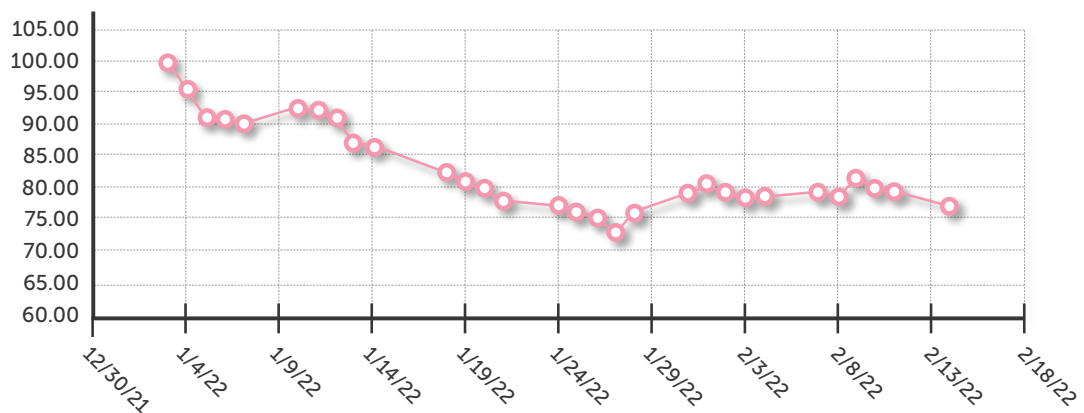
Sioux Falls, South Dakota-based biotech SAB **BioTherapeutics** (Ticker SABS; PGERM Weight 0.18%) announced positive Phase II data for its treatment SAB-185 for high-risk patients with mild-moderate Covid-19. The study showed impressive viral load reductions in trial participants which now needs confirmation in a Phase III trial. Led by the US NIH,

a Phase III study in high-risk patients is more than 50% enrolled (out of a total 1200), comparing SAB-185 directly with monoclonal antibody treatment for patients at risk of hospitalization.

French multinational pharma company **Sanofi** (Ticker SNY; PGERM Weight 1.09%) said on its February 4th earnings call that preliminary results from its clinical trial investigating its recombinant adjuvanted Covid-19 vaccine as a single booster showed strong immune responses regardless of the primary vaccine received, and the Phase III results are expected in Q1 2022. Success of this vaccine could be a game changer for the vaccine hesitant with the vaccine’s traditional protein-based mechanism combined with Sanofi’s strong track record in vaccine development.

San Francisco-based biotech **Vir Biotechnology** (Ticker VIR; PGERM Weight 3.31%) continues to make tracks in expanding antibody treatment sotrovimab for Covid-19 with its partner GSK. However, aside from Covid-19, Virrecently expanded its existing partnership with the Bill and Melinda Gates Foundation to advance platform technologies for the treatment and cure of HIV and prevention of malaria. Vir also recently announced it will gain ex-Biogen executive Johanna Friedl-Naderer as its new Chief Business Officer as of March 2nd 2022.

PGERM INDEX RETURN**



*Source: newsroom.questdiagnostics.com

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