



Early-stage drug discovery is heavily reliant on venture capital given relatively scarce corporate funding. (UBS)

# Biotech: The Human Genome Project turns 20

14 April 2023, 1:21 pm CEST, written by UBS Editorial Team

**Twenty years ago today, pioneering scientists announced the first-ever successful mapping of a complete human genome, helping usher in a new era of genetic research and collaborative science.**

This was a Herculean task in its day, costing an estimated USD 2.7bn and taking years of manual effort. Two decades later, your genome can be mapped out in an afternoon for as little as USD 200.

In the last year, rising interest rates have hurt biotech valuations, like other growth stocks, and the recent banking turmoil has dented confidence in the venture capital industry, which provides capital to the sector's startups. We currently view the healthcare sector as least preferred on a tactical investment horizon, in part due to relative valuations. But the long-term investment case for biotech remains intact and is worth considering:

**COVID-19 is just one of many viral diseases that need to be addressed.** The efficacy and speed of mRNA vaccine development came into full view during the pandemic, greatly improving health outcomes. But viral diseases go well beyond the coronavirus; other infections are in wide circulation today, posing significant mortality and morbidity risks. For example, respiratory syncytial virus (RSV) infections have quietly surged after the pandemic, causing more than 177,000 hospitalizations and 14,000 deaths a year in the US alone. Biotech could offer important treatments to address these risks, with positive impact to human life and health systems.

**Biotech can offer investors binary outcomes.** In most cases, biotech companies that do not pass clinical trials and testing will fail and swiftly go out of business. Those that succeed can establish demand more quickly than startups in other sectors, since the market fit typically is more obvious. For this reason, diversification across multiple companies in the industry is important. Biotech end-markets also tend to be less cyclical, as individual health needs are not directly linked to economic or market swings, although the funding cycle for unprofitable companies is important in driving sentiment toward and the performance of listed assets.

**Private investors continue to fund promising research.** Early-stage drug discovery is heavily reliant on venture capital given relatively scarce corporate funding. Despite rising headwinds, biotech fundraising has held up relatively well over the last year. According to Pitchbook, biotech and pharma raised around USD 31bn in venture capital in the US last year, down 21% from 2021, but a smaller decline than the 38% for fintech and 54% for consumer tech. At the same time, assets in impact investing strategies surpassed USD 1tr in 2022, a large portion of which was in venture capital and social themes.

So, while there are near-term risks to consider, we see opportunities in early-stage virology treatments and genetic therapies, especially given recent pressure on valuations. Many of these opportunities can best be accessed via private markets, though we recommend selectivity within venture capital and growth equity, and consideration of fund managers' approaches to active venture building. Pressure on valuations remains a short-term risk, in our view, but also an attractive long-term opportunity to enter the market. In addition, many of these ventures seek to address diseases with no current treatments, offering investors a chance to align their portfolio with purpose and impact. Investors need to consider that private markets come with certain drawbacks, including the risk of an illiquid market, and those interested need to be willing and able to lock up capital for longer.

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**Content is a product of the Chief Investment Office (CIO).**

Original report - [Biotech: The Human Genome Project turns 20, 14 April 2023.](#)

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