

# BAILLIE GIFFORD

## *Baillie Gifford Health Innovation Fund*

30 June 2022

### Baillie Gifford Update

<b>Philosophy</b>	Long-term investment horizon A growth bias Bottom-up portfolio construction High active share
<b>Partnership</b>	100% owned by 51 partners with average 19 years' service Ownership aligns our interests with those of our clients Enables us to take a thoughtful, long-term view in all that we do Stability, quality and consistency

### Investment Proposition

The Fund aims to produce capital growth over the long term. The investment policy is to invest mainly in global equities selected from companies involved in the healthcare industry and which are innovative in their focus. The Fund will not be restricted to equity securities in the healthcare sector as defined by any particular index. Investment will be concentrated by the number of stocks held but diversified across a range of healthcare themes.

### Fund Facts

Fund Launch Date	15 December 2020
Fund Size	£75.1m
IA Sector	Healthcare
Active Share	99%*
Current Annual Turnover	21%
Current number of stocks	39
Stocks (guideline range)	25-50

\*Relative to MSCI ACWI Index. Source: Baillie Gifford & Co, MSCI.

### Health Innovation Team

Name	Years' Experience
Julia Angeles*	14
Marina Record	14
Rose Nguyen	9

\*Partner

## Fund Objective

To outperform (after deduction of costs) the MSCI ACWI Index, as stated in sterling, by at least 2.5% per annum over rolling five-year periods.

The manager believes this is an appropriate target given the investment policy of the Fund and the approach taken by the manager when investing. In addition, the manager believes an appropriate performance comparison for this Fund is the Investment Association Specialist Sector.

There is no guarantee that this objective will be achieved over any time period and actual investment returns may differ from this objective, particularly over shorter time periods.

## Periodic Performance

	3 Months	1 Year	3 Years (p.a.)	Since Inception (p.a.)†
Class B-Acc (%)	-13.3	-41.4	N/A	-23.7
Index (%)*	-8.4	-3.7	N/A	4.6
Target (%)**	-7.9	-1.3	N/A	7.3
Sector Average (%)***	-4.9	-4.7	N/A	1.8

Performance source: FE, StatPro, MSCI, total return in sterling.

†15/12/2020

\*MSCI ACWI Index.

\*\*Target refers to Target Benchmark: MSCI ACWI Index (in sterling) plus at least 2.5% per annum over rolling five-year periods.

\*\*\*IA Healthcare Sector.

## Discrete Performance

	30/06/17- 30/06/18	30/06/18- 30/06/19	30/06/19- 30/06/20	30/06/20- 30/06/21	30/06/21- 30/06/22
Class B-Acc (%)	N/A	N/A	N/A	N/A	-41.4
Index (%)*	N/A	N/A	N/A	N/A	-3.7
Target (%)**	N/A	N/A	N/A	N/A	-1.3
Sector Average (%)***	N/A	N/A	N/A	N/A	-4.7

Performance source: FE, StatPro, MSCI, total return in sterling.

\*MSCI ACWI Index.

\*\*Target refers to Target Benchmark: MSCI ACWI Index (in sterling) plus at least 2.5% per annum over rolling five-year periods.

\*\*\*IA Healthcare Sector.

## Stock Level Attribution

## Top and Bottom Ten Contributors to Relative Performance

## Quarter to 30 June 2022

Stock Name	Contribution (%)
argenx	2.7
Wuxi Biologics Cayman Inc	1.0
ShockWave Medical Inc	0.9
Amazon.com*	0.5
Recursion Pharmaceuticals Inc	0.4
Tesla Inc*	0.4
Ionis Pharmaceuticals	0.4
NVIDIA*	0.4
Alnylam Pharmaceuticals	0.3
Apple*	0.3
Illumina	-2.4
10X Genomics Inc Class A	-1.4
Teladoc	-1.4
Dexcom Inc	-1.2
Ambu	-0.9
Exact Sciences	-0.6
Health Catalyst Inc	-0.5
M3	-0.4
Relay Therapeutics Inc	-0.4
Sartorius Pref	-0.4

## One Year to 30 June 2022

Stock Name	Contribution (%)
argenx	3.0
ShockWave Medical Inc	1.9
Amazon.com*	0.6
Meta Platforms Inc*	0.6
Ionis Pharmaceuticals	0.4
Paypal Holdings Inc*	0.4
Moderna Inc	0.3
Alibaba*	0.3
Netflix Inc*	0.2
Alnylam Pharmaceuticals	0.2
10X Genomics Inc Class A	-5.7
Ambu	-4.9
M3	-4.0
Illumina	-3.7
Teladoc	-3.6
BridgeBio Pharma Inc	-2.7
Berkeley Lights Inc	-2.5
Novocure Ltd	-2.3
Recursion Pharmaceuticals Inc	-2.3
Health Catalyst Inc	-1.9

Source: StatPro, MSCI. Baillie Gifford Health Innovation Fund relative to MSCI ACWI Index.

Some stocks may have been held part period.

\*Stocks not held in the portfolio.

## Market environment

Market conditions continue to be volatile; compounding uncertainty has continued to affect the market and the sector this quarter. It will end, it always does, but when, and how much lower are still unclear. We believe that in periods of great uncertainty similar to those which we are currently enduring, it is vital that as stewards of your capital we stick to our fundamentals. We have now met with every company in the portfolio and examined their positioning and strategy in a changed macro environment and maintain our conviction that we hold the best in class companies that are well financed to continue growth, with a well-balanced resilient portfolio with ~60% of holdings generating positive free cash flows.

We also feel in sticking to our process it is important to stay close to our eco-system. The team have been busy visiting new companies and institutions around the world as we look to build upon our investment hypothesis, explore current and future trends transforming healthcare, and meet leading industry experts and thinkers. The companies in which we invest are solving some of the biggest problems facing humanity, both in the most vexing diseases, and in repairing a health care system which isn't serving patient's needs. These trends will not go away, and the incumbent players are ripe to be disrupted.

## Performance

The fund slightly underperformed the benchmark this quarter, driven largely by the continued sell off across growth equities, and the broader trend in markets. The main contribution to performance has been led by Argenx a Belgian company that develops antibody-based drugs for rare auto-immune diseases and cancer following earnings which beat analyst expectations. Currently they have seven wholly owned product candidates and four co-developed and partnered product candidates. Our investment hypothesis in Argenx is built on their special management culture, that closely ties in advances in academia, the scalability of their platform, and their ability to iterate on success which has seen their first drug approved in the last 6 months, and another three-neering commercialisation.

Our second largest contributor to performance is WuXi Biologics a Chinese contract development and manufacturing organisation. Shares jumped following indications that it would soon be removed from US unverified lists, as inspectors will soon be able to visit the factories in China, following an inability to do so during Covid lock downs. Their business model allows a biotech company to bring their drug design to WuXi, then have it produced, trialled, and commercialised in exchange for a royalty. WuXi currently accounts for 40% of new biologic assets globally. We think that this CDMO model is highly compelling in terms of its

ability to disrupt big Pharma as well as bring innovation to patients more cheaply and far quicker.

The third top contributor to performance has been Shockwave Medical, a California based pioneer of intravascular lithotripsy (IVL), an innovative technology that treats calcified blood vessels using sonic pressure waves. Shockwave has aggressively reinvested revenues in R&D doubling the size of the team in the last year and expects to have six commercialised products in 2026. Management is forecasting 71-79% revenue growth this year, and entry to the Chinese market with their products. At the end of last year Shockwave attained a permanent reimbursement code from the Centres for Medicare and Medicaid Services (CMS), which paves the way for increased market share, allowing physicians to fund treatment from Medicaid and Medicare (US government funded healthcare provision). This essentially doubles the payments hospitals receive and levels the economic playing field with the incumbent treatments. Coupled with an expected reimbursement upgrade for coronary devices removes any reimbursement uncertainty, which has been the largest barrier to adoption, for this faster, simpler, and safer procedure in removing arterial blockages.

Our bottom contributor to performance this month has been Illumina, the world leader in gene-sequencing technology. They provide the foundational technology which could help to usher in a new standard of personalised healthcare and a whole new suite of therapies. Illumina's machines have helped to drive down the cost of human genome sequencing from ~\$2 bn in 2001 to ~\$500 now. They think they can get below \$100. Its NGS technology is six times faster than the previous generation of genetic sequencing. The biggest news item weighing on the shares continues to be the attempted acquisition of the liquid biopsy company GRAIL (which Illumina spun out of its own business a little over 5 years ago). If completed it could accelerate the adoption of routine cancer screening via blood samples at much lower costs and accuracy to the healthcare systems, as well as screening for 50 cancers at once, including 45 hard to detect types. At the end of May there was also an announcement from Ultima Genomics, a private company who came out of stealth mode with claims that they will be able to sequence a full genome for c.100 USD, although there has yet to be any publishing of proof-of-concept data, and it won't be ready for commercial deployment until 2023 at earliest.

10X Genomics, a US company that builds the tools to understand and manipulate the genome at the single cell level, has been the second bottom detractor to performance this quarter. Shares in the company were volatile, but this appears largely driven by market sentiment rather than company fundamentals. We maintain our view that 10X Genomics' technology is a crucial pillar in the shift to personalised medicines.

Their tools and software allow scientists to compare healthy and diseased cells to understand the drivers of disease and provide the infrastructure with which to develop many cell and gene therapies. The continued operational progress and the excellent culture and management team further strengthens our conviction.

The third bottom contributor has been Teladoc, the US based telemedicine provider. Recent news from Teladoc has disappointed following a relatively strong 2021. During FY (fiscal year) 2021 revenue grew 86% (to over \$2billion) and total visits increased by 38% to 15.4m which exceeded guidance. Operating cash flow improved significantly to \$194m from negative \$53m the previous year. Growth in revenue, visits and utilisation has all continued to trend upwards this year, however, the recent disappointment came from the lower FY guidance by 7%. They are now expecting 18-23% FY revenue growth and 10% adjusted EBITDA (Earnings before interest, taxes, depreciation and amortization) margin compared to previous guidance of 13%. Management pointed to several factors including a lower return than expected on the D2C mental health business, an elongated sales cycle for the chronic care business and more competition from point solution providers (Teladoc is a whole person solution rather than a one-point solution). There is much to admire about Teladoc's operational progress over the past few years: it is at the fulcrum of US healthcare digitisation. However, there are clearly evolving aspects around competition, which we continue to monitor.

### **Stewardship**

This quarter we met with Ambu, a manufacturer of airway and imaging devices about their environmental impact, and projects they have launched to reduce water and chemical use. We also engaged extensively with Moderna following a shareholder resolution around technology transfer and drug pricing, this has led to us initiating a drug pricing conference later in the year co-chaired by Cambridge university.

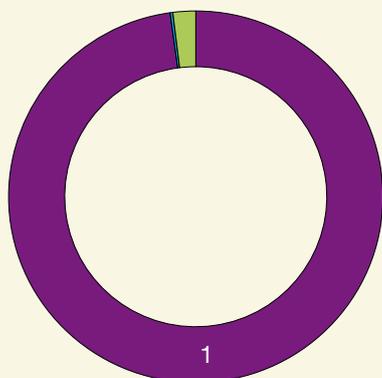
### **Notable transactions**

There have been no transactions this quarter.

There were no new purchases during the period.

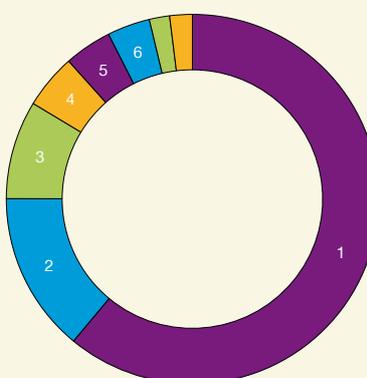
There were no complete sales during the period.

**Sector Exposure**



		%
1	Health Care	97.8
2	Financials	0.2
3	Cash	2.0

**Geographic Exposure**



		%
1	United States	61.0
2	Denmark	14.0
3	Netherlands	8.6
4	Germany	4.8
5	Japan	4.1
6	Cayman Islands	3.7
7	Others	1.8
8	Cash	2.0

**Top Ten Holdings**

Stock Name	Description of Business	% of Portfolio
Argenx	Biotech company that develops antibody based therapies for autoimmune diseases and cancer.	8.6
ShockWave Medical	Medical devices manufacturer	8.0
Moderna	A clinical stage biotechnology company	6.3
Genmab	Antibody based drug development	6.1
Alnylam Pharmaceuticals	Drug developer focussed on harnessing gene silencing technology	4.8
Sartorius Group	Biopharmaceutical and laboratory equipment supplier	4.8
Edwards Lifesciences	Services to treat late-stage cardiovascular disease	4.4
M3	Online medical services	4.1
Illumina	Gene sequencing equipment and consumables	3.8
WuXi Biologics	A pharmaceutical company	3.7
<b>Total</b>		<b>54.6</b>

Voting Activity

Votes Cast in Favour		Votes Cast Against		Votes Abstained/Withheld	
Companies	33	Companies	6	Companies	2
Resolutions	258	Resolutions	7	Resolutions	2

Company Engagement

Engagement Type	Company
Corporate Governance	M3, Inc., Moderna, Inc., Sartorius Aktiengesellschaft
Environmental/Social	Alector, Inc., BridgeBio Pharma, Inc., Lyell Immunopharma, Inc., M3, Inc., Moderna, Inc.
AGM or EGM Proposals	Ascendis Pharma A/S, Butterfly Network, Inc., Edwards Lifesciences Corporation, Moderna, Inc., Relay Therapeutics, Inc., Sage Therapeutics, Inc.

Asset Name	Fund %
Argenx	8.6
ShockWave Medical	8.0
Moderna	6.3
Genmab	6.1
Alnylam Pharmaceuticals	4.8
Sartorius Group	4.8
Edwards Lifesciences	4.4
M3	4.1
Illumina	3.8
WuXi Biologics	3.7
10x Genomics	3.5
Alk-Abello	3.4
ResMed	2.9
Ambu	2.9
Dexcom	2.7
Abiomed	2.6
Novocure	2.4
Masimo	2.2
Ionis Pharmaceuticals	2.2
Denali Therapeutics	1.8
Teladoc	1.7
Ascendis Pharma	1.6
Veeva Systems	1.5
Recursion Pharmaceuticals	1.2
Exact Sciences	1.1
Health Catalyst	1.1
Zai Lab	0.9
Lyell Immunopharma	0.9
BridgeBio	0.9
Exscientia	0.8
Vir Biotechnology	0.8
Butterfly Network	0.8
Relay Therapeutics	0.7
Alector	0.7
Berkeley Lights	0.7
Sage Therapeutics	0.5
Amwell	0.5
Oscar Health	0.2
Sana Biotechnology	0.2
Cash	2.0
<b>Total</b>	<b>100.0</b>

Please note the fund information contained within this document is confidential, proprietary information and should be maintained as such and not disseminated. The content is intended for information purposes only and should not be disclosed to other third parties or used for the purposes of market timing or seeking to gain an unfair advantage.

Share Class	Share Class Inception Date	ISIN	SEDOL	Annual Management Fee (%)	Ongoing Charge Figure (%)
Class B-Acc	15 December 2020	GB00BMVLY038	BMVLY03	0.50	0.53*
Class B-Inc	15 December 2020	GB00BMVLY145	BMVLY14	0.50	0.53*

Charges will reduce the value of your investment. Please refer to the Prospectus and Key Investor Information Document for further details.

\*Estimated

MSCI Source: MSCI. MSCI makes no express or implied warranties or representations and shall have no liability whatsoever with respect to any MSCI data contained herein. The MSCI data may not be further redistributed or used as a basis for other indexes or any securities or financial products. This report is not approved, endorsed, reviewed or produced by MSCI. None of the MSCI data is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such.

This document contains information on investments which does not constitute independent investment research. Accordingly, it is not subject to the protections afforded to independent research and Baillie Gifford and its staff may have dealt in the investments concerned. Investment markets and conditions can change rapidly and as such the views expressed should not be taken as statements of fact nor should reliance be placed on these views when making investment decisions.

This document is issued by Baillie Gifford & Co Limited, Calton Square, 1 Greenside Row, Edinburgh EH1 3AN, a company which is authorised and regulated by the Financial Conduct Authority, Financial Services Register No. 119179, and is a member of The Investment Association. Baillie Gifford & Co Limited is wholly owned by Baillie Gifford & Co, which is authorised and regulated by the Financial Conduct Authority. Baillie Gifford Overseas Limited is wholly owned by Baillie Gifford & Co. Baillie Gifford Overseas Limited provides investment management and advisory services to non-UK clients. Both are authorised and regulated by the Financial Conduct Authority.

#### **Additional Geographical Location Information**

**Israel:** This Report, as well as investment in the Fund described herein, is directed at and intended for Investors that fall within at least one category in each of: (1) the First Schedule of the Israeli Securities Law, 1968 (“Sophisticated Investors”); and (2) the First Schedule of the Investment Advice Law (“Qualified Clients”).

The Fund’s share price can be volatile due to movements in the prices of the underlying holdings and the basis on which the Fund is priced.

As with any investment, the clients’ capital is at risk. Past performance is not a guide to future returns.

Throughout the report all figures are rounded, so any totals may not sum. Not all stocks mentioned may be held by the portfolio.

All information as at 30 June 2022 and source is Baillie Gifford & Co unless otherwise stated.