

Platinum International Health Care Fund



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Portfolio Manager

Performance

(compound p.a.⁺, to 30 September 2020)

	QUARTER	1YR	3YRS	5YRS	SINCE INCEPTION
Platinum Int'l HC Fund*	-2%	29%	16%	12%	11%
MSCI AC World HC Index [^]	1%	14%	14%	9%	10%

⁺ Excludes quarterly returns.

* C Class – standard fee option. Inception date: 10 November 2003.

After fees and costs, before tax, and assuming reinvestment of distributions.

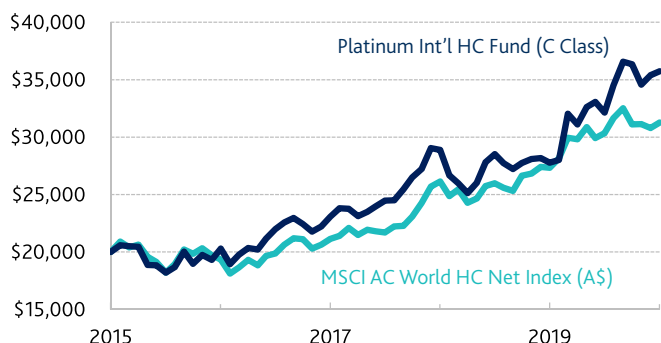
[^] Index returns are those of the MSCI All Country World Health Care Net Index in AUD. Source: Platinum Investment Management Limited, FactSet Research Systems.

Historical performance is not a reliable indicator of future performance.

See note 1, page 4. Numerical figures have been subject to rounding.

Value of \$20,000 Invested Over Five Years

30 September 2015 to 30 September 2020



After fees and costs, before tax, and assuming reinvestment of distributions.

Historical performance is not a reliable indicator of future performance.

Source: Platinum Investment Management Limited, FactSet Research Systems. See notes 1 & 2, page 4.

While the world is glued to the vaccine race and manufacturing companies are gearing up to fulfil future vaccine orders, biotech executives are making sure their pipelines are robust for years to come. During the quarter, Sanofi acquired its partner, Principia Biopharma, a San Francisco-based biotech firm, to gain full access to Principia's BTK inhibitor.¹ This makes life easier for Sanofi to develop the molecule across many disease indications, including neurology and inflammatory ailments. CEO, Paul Hudson and his team at Sanofi have been very decisive and clear in what pipeline assets are a priority and most importantly, their reasoning behind their decisions. For now, the market remains hesitant, which we see as a solid long-term opportunity.

Gilead Sciences took the "outbid everyone" approach and wrote a rather large cheque to buy Immunomedics, a biotech that recently received approval by the US Food and Drug Association (FDA) of its antibody drug conjugate, Trodelvy for late-stage triple-negative breast cancer (TNBC). It is no secret that Gilead is pivoting to oncology. Trodelvy has good potential but the acquisition price is not to our liking. Johnson & Johnson (JNJ) also went shopping, buying Momenta Pharmaceuticals and gaining a neonatal Fc receptor (FcRn) inhibitor, which will expand JNJ's anti-inflammatory divisions. This class of drugs has the potential to change the dynamic of multiple immune system-related disorders.

Biotechs continue to strengthen their balance sheets either via equity offerings or alliances. **Denali Therapeutics** (+48% for the quarter)² entered into an alliance with Biogen, Roche licensed a drug from **Blueprint Medicines** (+19%), while **Assembly Biosciences** (-30%) licensed Chinese rights of its hepatitis B virus (HBV) core inhibitor to BeiGene. New biotech listings continue, particularly in the US and China. Despite a flurry of activity, the small broad biotech index, XBI fell 0.5% over the quarter.³

1 Bruton tyrosine kinase (BTK) is a protein important for both normal B cell development and the proliferation of lymphomas, which are B cell cancers.

2 References to returns and performance contributions (excluding individual stock returns) in this Platinum International Health Care Fund report are in AUD terms. Individual stock returns are quoted in local currency terms and sourced from FactSet Research Systems, unless otherwise specified.

3 SPDR S&P Biotech ETF (XBI), local currency. Source: FactSet Research Systems.

Our Australian biotech holdings progressed nicely this quarter. The FDA granted various designations for **Kazia Therapeutic's** paxalisib that will allow close communication with the FDA as well as a speedier approval assessment by the regulator (Kazia advanced 100% in the quarter). **Telix Pharmaceutical** (+30%) entered into an alliance with Varian (soon to be part of Siemens Healthineers) and submitted its dossier for approval of its prostate imaging agent to the FDA. Finally, similar to Kazia, **Antisense Therapeutics** (+100%) was also granted a Rare Paediatric Disease Designation (RPDD) for its lead asset. This means they may qualify for a voucher that can be redeemed to receive a priority review of a subsequent marketing application for a different product.

Setbacks are part of Biotech. During the quarter, filgotinib, a JAK inhibitor used in the treatment of rheumatoid arthritis developed by **Gilead Sciences** (-18%) and its partner **Galapagos** (-31%) received a complete response letter from the FDA asking for more data. Delay of approval in rheumatoid arthritis in the US is a setback, but interestingly, during the quarter, Japan and Europe granted approval. There is never a dull moment in biotech.

During the quarter, we trimmed a number of our holdings and redistributed the money to companies that had a setback or simply were left behind due to lack of newsflow. We also added new companies to the portfolio that we had been watching for some time. In addition, we increased our short exposure, with the dominant short being the biotech index.

Commentary

Biotech is the next tech, with engineering being at the centre of this evolution (or perhaps revolution). In recent years, the convergence between genomics, molecular biology and proteomics (study of proteins) has been taking shape. Key ingredients to enable this convergence include new laboratory tools as well as computational prowess and most importantly, people who are not confined to their initial university degree. Today, the lines between genomics, proteomics and molecular biology are blurred and the common denominator is engineering, be that the aim to engineer a better antibody therapeutic that carries various warheads at a precise antibody to warhead ratio, or be that a genetics buff looking to introduce various edits into a cell hoping to make the cell a more powerful anticancer agent. Then there are the geneticists that are looking to detect all the genetic variants, requiring cheap and accurate sequencing as well as computational tools. The ramification of all this activity will result in better diagnostic approaches, vast improvements in our understanding of disease pathologies and ultimately a next-generation approach to healthcare. This is what really gets us excited.

Disposition of Assets

REGION	30 SEP 2020	30 JUN 2020	30 SEP 2019
North America	35%	39%	30%
Europe	29%	27%	27%
Oceania	13%	11%	14%
Asia	8%	6%	5%
Japan	6%	7%	6%
Cash	10%	10%	18%
Shorts	-7%	0%	-4%

See note 3, page 4. Numerical figures have been subject to rounding.
Source: Platinum Investment Management Limited.

Net Sector Exposures

SECTOR	30 SEP 2020	30 JUN 2020	30 SEP 2019
Biotechnology	49%	51%	44%
Pharmaceuticals	26%	26%	30%
Life Sciences Tools & Services	9%	9%	6%
Health Care Providers & Serv	1%	1%	0%
Health Care Technology	-1%	0%	0%
Health Care Equip & Supplies	-1%	2%	1%
Industrials	1%	0%	0%
Other	-1%	0%	0%
TOTAL NET EXPOSURE	83%	89%	80

See note 4, page 4. Numerical figures have been subject to rounding.
Source: Platinum Investment Management Limited.

Net Currency Exposures

CURRENCY	30 SEP 2020	30 JUN 2020	30 SEP 2019
Euro (EUR)	32%	26%	14%
US dollar (USD)	25%	38%	40%
Australian dollar (AUD)	23%	12%	4%
Chinese yuan (CNY)	6%	5%	4%
Japanese yen (JPY)	4%	7%	18%
British pound (GBP)	3%	3%	7%
Swiss franc (CHF)	2%	2%	7%
Swedish krona (SEK)	1%	1%	1%
Danish krone (DKK)	1%	1%	1%
Hong Kong dollar (HKD)	1%	3%	0%
Canadian dollar (CAD)	1%	1%	0%
New Zealand dollar (NZD)	1%	0%	0%
Norwegian krone (NOK)	0%	0%	2%

See note 5, page 4. Numerical figures have been subject to rounding.
Source: Platinum Investment Management Limited.

For further details of the Fund's invested positions, including country and industry breakdowns and currency exposures, updated monthly, please visit <https://www.platinum.com.au/our-products/pihcf>.

Since the inception of the Fund in 2003, we have been investing in new technologies that scientists use in basic research or drug development. Several of those investments have been acquired by larger peers, while others have become successful independently. **Pacific Biosciences of California (PACB)** is one of those investments. It sells genetic sequencing equipment and consumables based on so-called long-read technology. Over the years, PACB had its fair share of acquirers but ultimately, no deal came to fruition. Illumina, the company that dominates short-read sequencing (or next-generation sequencing, NGS), was hoping to acquire PACB in late 2018, but due to competition concerns, the deal was abandoned in January this year. We started to build a position in PACB late last year, when everyone was worried about the deal collapsing. To us, PACB's long-read sequencing technology (or third-generation sequencing) had come a long way and will be important in years to come.

Sequencing is a cornerstone of next-generation healthcare, and common perception is that Illumina will dominate. The human genome is too long to be sequenced as one continuous string, comprising over three billion DNA base pairs in length and containing many repetitive stretches of genetic code. Sequencing is done by cutting the genomic sample into pieces (or reads) and then reassembling them like a jigsaw to form a continuous genomic sequence. Long reads, as the name implies, essentially turn samples into a puzzle with fewer pieces. Each approach has their advantages and disadvantages. Short-read sequencing is currently inexpensive, has high throughput (i.e. production rates) and

many bioinformatics tools (which are used to piece together the reads) are available. However, assembly of these short fragments can be challenging when it comes to complex genomes for example. Often highly variable structures make short-read assembly difficult and that is where long-read technology comes in. There is a belief in the industry that personalised medicine or rare diseases makes long-read sequencing a necessity, but the issue has been accuracy, throughput and cost. This is changing, however, with PACB's recent new Sequel II machine (introduced in April 2019) along with a new version of chemistry (introduced in October 2019), highlighting why Illumina would have liked to own PACB ahead of the Sequel II launch.

Since the termination of the Illumina-PACB merger, PACB has stepped up to the challenge, raised money and is gradually expanding its sales force. Since mid-September 2020, Christian Henry has taken over as CEO following two years on the board of PACB. Christian Henry is very familiar with sequencing, having been at Illumina for 12 years, where part of that time he was the Chief Financial Officer and Chief Commercial Officer.

There is great potential for long-read sequencing not only in research but also in diagnostics. Technologies have to mature and PACB has gone through a maturation stage. While Roche was a diagnostic partner in 2015, the technology was not ready. In the end, several pieces have to fall into place. The leadership transition from being principally led by a research and development (R&D) team to a commercially experienced team is smart given where the technology is today.

Top 10 Holdings

COMPANY	COUNTRY	INDUSTRY	WEIGHT
SpeedX Pty Ltd	Australia	Biotechnology	4.5%
Sanofi SA	France	Pharmaceuticals	4.1%
Takeda Pharma Co	Japan	Pharmaceuticals	3.7%
Bayer AG	Germany	Pharmaceuticals	2.8%
Pacific Biosciences	US	Life Sciences Tools	2.5%
Kazia Therapeutics	Australia	Biotechnology	2.1%
Zai Lab Ltd ADR	China	Biotechnology	2.1%
Telix Pharmaceutical	Australia	Biotechnology	2.1%
Gilead Sciences Inc	US	Biotechnology	2.1%
Quanterix Corp	US	Life Sciences Tools	2.0%

As at 30 September 2020. See note 6, page 4.
Source: Platinum Investment Management Limited.

Outlook

There is no lack of newsflow in the coming months. The US election and data from vaccine trials will be watched closely, as will SARS-CoV-2 case numbers in the northern hemisphere given winter is fast approaching. Deploying a vaccine is not an overnight exercise and to us, simply signals the next phase of this pandemic. We are watching the therapeutics pipeline carefully, as in the end, to combat the virus we will need both vaccines and therapeutics. The biotech sector has recovered at a rapid speed since March and is taking some time to consolidate.

We remain steadfast and focused on the long-term opportunities within this sector. Biotechs are generally very well-funded, pharma companies continue to add to their pipelines and similar to investors, they are looking for growth opportunities. China's biotech industry is progressing and for now, it is a market in its infancy that offers some very interesting investment opportunities.

Notes

Unless otherwise specified, all references to "Platinum" in this report are references to Platinum Investment Management Limited (ABN 25 063 565 006, AFSL 221935).

Some numerical figures in this publication have been subject to rounding adjustments. References to individual stock or index performance are in local currency terms, unless otherwise specified.

1. Fund returns are calculated by Platinum using the net asset value unit price (i.e. excluding the buy/sell spread) of the stated unit class and represent the combined income and capital returns over the specified period. Fund returns are net of fees and costs, pre-tax, and assume the reinvestment of distributions. The MSCI index returns are in AUD, are inclusive of net official dividends, but do not reflect fees or expenses. MSCI index returns are sourced from FactSet Research Systems. Platinum does not invest by reference to the weightings of the specified MSCI index. As a result, the Fund's holdings may vary considerably to the make-up of the specified MSCI index. MSCI index returns are provided as a reference only. The investment returns shown are historical and no warranty is given for future performance. Historical performance is not a reliable indicator of future performance. Due to the volatility in the Fund's underlying assets and other risk factors associated with investing, investment returns can be negative, particularly in the short term.
2. The investment returns depicted in the graph are cumulative on A\$20,000 invested in C Class (standard fee option) of the Fund over the specified period relative to the specified MSCI index in AUD.
3. The geographic disposition of assets (i.e. other than "cash" and "shorts") shows the Fund's exposures to the relevant countries/regions through its long securities positions and long securities/index derivative positions, as a percentage of its portfolio market value. With effect from 31 May 2020, country classifications for securities were updated to reflect Bloomberg's "country of risk" designations and the changes were backdated to prior periods. "Shorts" show the Fund's exposure to its short securities positions and short securities/index derivative positions, as a percentage of its portfolio market value. "Cash" in this table includes cash at bank, cash payables and receivables and cash exposures through derivative transactions.
4. The table shows the Fund's net exposures to the relevant sectors through its long and short securities positions and long and short securities/index derivative positions, as a percentage of its portfolio market value. Index positions (whether through ETFs or derivatives) are only included under the relevant sector if they are sector specific, otherwise they are included under "Other".
5. The table shows the Fund's net exposures to the relevant currencies through its long and short securities positions, cash at bank, cash payables and receivables, currency forwards and long and short securities/index derivative positions, as a percentage of its portfolio market value. Currency classifications for securities reflect the relevant local currencies of the relevant Bloomberg country classifications. The table may not exhaustively list all of the Fund's currency exposures and may omit some minor exposures.
6. The table shows the Fund's top ten positions as a percentage of its portfolio market value taking into account its long securities positions and long securities derivative positions.

Disclaimers

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