# PLATINUM INTERNATIONAL HEALTH CARE FUND



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## PERFORMANCE

The Platinum International Health Care Fund achieved a return of 9% for the quarter, ahead of the MSCI World Health Care Index of 4%.

Several of our investments were part of broader news events last quarter and despite it generally being considered a quiet quarter for the health care sector, the past three months had plenty to offer. The potential of a bird flu pandemic as well as the need to be appropriately prepared for the next flu season saw GlaxoSmithKline expand its manufacturing and technology capabilities and enter into contracts with a number of governments including the US and Germany. The World Health Organisation (WHO) has been vigorously encouraging numerous governments to purchase the flu drug Tamiflu (from Roche) and to a lesser extent Relenza (from GlaxoSmithKline) as a part of preparation plans for dealing with any virulent outbreaks.

Acquisitions, as well as large partnership deals were also a highlight in the biotech sector, mainly with a focus on accelerating development plans with an eye on achieving earlier profitability. Many biotechnology companies are reaching an interesting stage of their corporate development. Using the exuberant funding obtained in the late nineties, significant progress has been made in research and clinical development. In an attempt to better manage their destiny, many smaller companies are choosing to align themselves more creatively, choosing other biotechnology companies rather than the previously more common path of licensing potential drugs to a large pharmaceutical company. This is providing us with some interesting opportunities.

| DISPOSITION OF ASSETS   |          |          |
|-------------------------|----------|----------|
| REGION                  | SEP 2005 | JUN 2005 |
| NORTH AMERICA           | 57%      | 63%      |
| EUROPE                  | 25%      | 25%      |
| JAPAN                   | 4%       | 2%       |
| OTHER ASIA (INCL KOREA) | 2%       | 3%       |
| CASH                    | 12%      | 7%       |
| SHORTS                  | 1%       | 1%       |
| Source: Platinum        |          |          |



The US regulatory agency (Food and Drug Administration, FDA) was also active. Despite the recent intense scrutiny on the safety profiles of many drugs, several new products received positive recommendations. Another event involving the FDA and with possible implications for the sector, was the surprise resignation of the head of the FDA. The new acting commissioner, Andrew von Eschenbach, is well known to cancer researchers as he also leads the National Cancer Institute, encouraging many to believe that more of a focus on the molecular science of treatments will ensue.

Finally, the US industry giants Pfizer and Merck continue to be encumbered by legal battles; Pfizer with patent challenges on their major drug Lipitor and Merck with patient lawsuits over the adverse safety effects of their drug Vioxx. The developments of both cases will have repercussions across the industry.

# CHANGES TO THE PORTFOLIO

Last quarter we sold some of our small to midstage biotech investments as valuations, as well as their risk profiles, increased. We have seen better opportunities in some of the large European pharmaceutical companies and in those companies providing tools and services. As a consequence of recent developments in the industry there is a much greater focus and demand by researchers to elucidate the efficacy and safety parameters of their drug candidates much earlier. Potential drugs are being characterised in the labs more fully with a trend towards earlier testing in people.

This is yielding opportunities for the tool and life science service and supply companies to assist the drug developers in improving the efficiency as well as quality of the R&D processes. Overall this leads to better decisions about the fate of a potential new drug molecule. We have been investigating a number of emerging technologies that leading laboratories are adopting.

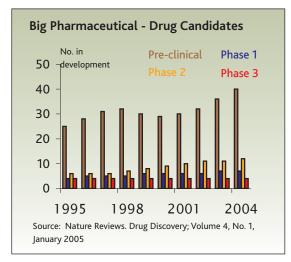
### COMMENTARY

Continuing with our theme on the influence of new technologies on drug discovery and development, we are exploring the adoption and application of some of the interesting new tools. In particular the strong focus on targeted therapy or personalised medicine is ever more evident and will demand the utilisation of new technologies during drug development and in diagnosing patients.

Working towards understanding the molecular basis of a disease, such as looking at the genetics or the changes in protein-protein interactions, has a vital influence on identifying new drugs. The idea that some patients can respond better or worse to drugs based on their genetic makeup or the subtle changes between diseased cells and healthy cells has allowed researchers to develop new treatments.

Over the past ten years a large number of new tools have become standard in a lab, with some scientists even referring to these advances as a revolution of drug development. Researchers are now able to identify new "drug targets" which are molecules that malfunction and thus contribute to a disease. Designing chemical or biological molecules against these "culprits" offers a targeted approach to treatment with hopefully a better side effect profile. These activities and investments in finding and validating new drug targets has significantly benefited the early stages of drug discovery which is illustrated by the number of potential drugs in pre-clinical and phase 1 development (in the attached graph over).

The continuous flow of compounds into clinical development as well as the strong activity in early drug discovery should have a long-term impact on the current pipeline drought widely experienced by the major companies. However, along with these well-filled early stage pipelines come new challenges and questions about the efficiency of clinical development. With the potential for an unprecedented number of



potential drug development programs to choose from, the issue of which one to progress (commercial potential balanced against development and failure risks) as well as the cost of development are an ongoing debate.

Development of a drug is a long endeavour and can take up to 15 years. A majority of the costs is associated with late stage development and consequently a drug failing in late stage testing is a significant event as a lot of resources, financial as well as human, have been allocated. A constant debate on how to get a clear efficacy profile of a drug early on in development is evident. The reasons for failure and pipeline attrition are several fold. Since the early nineties a lot of progress has been made in optimising a drugs metabolic profile; how the drug is absorbed or processed in humans. Through these activities late stage attrition due to these variables has been significantly reduced. Given this success, efforts are now underway to look at other parameters that have influenced attrition in the past.

The main challenge is the complexity of the human system and the poor predictive nature of current animal models. However, the tools available today as well as the detailed knowledge about the drug-target molecular relationship, gained during the discovery phase, have opened new possibilities of identifying "efficacy", "toxicity" as well as "patient responder" markers. These types of markers are already used to guide the discovery process in the laboratory and the trend is to "simply" transition them into early clinical development and use in patients.

The improvements to drug metabolism have reduced attrition rates and we would expect the inclusion of these 'markers' in studies to have an effect in the years to come. This concept of "transitional research", also called "experimental medicine" has already had a significant impact

| Drug Development Phase |                                       |  |  |                      |                                       |  |
|------------------------|---------------------------------------|--|--|----------------------|---------------------------------------|--|
| 1-3 years              | 2-10 years                            |  | > 1 year   |                      |                                       |  |
|                        |                                       |  |  |                      |                                       |  |
|                        | 15 months                             | 18 months                              | 18 months  |                      |                                       |  |
| Pre-clinical           | Phase 1                               | Phase 2                                | Phase 3  | Review               | Phase 4                               |  |
| Animal Models          | 20-80 patients<br>Safety, side effect | 100-300 patients<br>Safety<br>Efficacy | 1,000-3,000 patients<br>Confirm efficacy<br>Monitor safety | Regulatory<br>agency | Post-marketing<br>Safety surveillance |  |
| Source: FDA            |                                       | -                                      | -  |                      |                                       |  |

on R&D and is being supported by regulatory agencies as well as funding authorities such as the National Health Institute in the US. Many alliances and collaborations between large pharmaceutical companies, biotech companies as well as academics have been established to hunt for these "markers" and validate their predictive nature. Experimental medicine divisions have been formed at companies focusing on developing and validating these markers but perhaps more interesting are the tool, technology and service providers.

Several companies have developed technologies that are able to rapidly analyse multiple samples for the activity of these markers. Others offer services to assist in identifying new markers and subsequently validate them. In recent months there have been acquisitions within this area, not only by tool companies but also by clinical research organisations (CRO) and companies already engaged in supplying patient diagnostic products.

These activities acknowledge the strong interest in a more modern and perhaps less serendipitous approach to early clinical development. It is early days and currently there are only a few markers considered "valid" by regulatory agencies but this is likely to change quite rapidly.

Currently companies have their own sets of markers but a recent document by the FDA has indicated its desire to share and learn, asking companies to include exploratory information in their drug submissions. Some comment, and we would agree, that it is "no better time than now to turn to the potential of translational research".

#### OUTLOOK

The next quarter is historically considered very busy with companies releasing the results of clinical trials at a multitude of scientific conferences. Not without coincidence, many companies also attend investment community conferences and have their own 'R&D Day' to showcase their progress. We may also see decisions in the Merck and Pfizer cases before the courts, which have the potential of far more widespread ramifications across the industry.

We will continue with our theme of exploring opportunities in the providers of tools and technologies.

#### NOTES

1. The investment returns are calculated using the Fund's unit price and represent the combined income and capital return for the specific period. They are net of fees and costs (excluding the buy-sell spread and any investment performance fee payable), are pre-tax and assume the reinvestment of distributions. The investment returns shown are historical and no warranty can be given for future performance. You should be aware that past performance is not a reliable indicator of future performance. Due to the volatility of underlying assets of the Funds and other risk factors associated with investing, investment returns can be negative (particularly in the short-term).

2. The investment returns depicted in the graphs are cumulative on A\$10,000 invested in the relevant Fund since inception relative to their Index (in A\$) as per below:

Platinum International Fund: Inception 1 May 1995, MSCI All Country World Net Index

Platinum Asia Fund: Inception 3 March 2003, MSCI All Country Asia ex Japan Net Index

Platinum European Fund: Inception 1 July 1998, MSCI All Country Europe Net Index

Platinum Japan Fund: Inception 1 July 1998, MSCI Japan Net Index

Platinum International Brands Fund: Inception 18 May 2000, MSCI All Country World Net Index

Platinum International Health Care Fund: Inception 10 November 2003, MSCI All Country World Health Care Net Index

Platinum International Technology Fund: Inception 18 May 2000, MSCI All Country World Information Technology Index

(nb. the gross MSCI Index was used prior to 31 December 1998 as the net MSCI Index did not exist).

The investment returns are calculated using the Fund's unit price. They are net of fees and costs (excluding the buy-sell spread and any investment performance fee payable), pre-tax and assume the reinvestment of distributions. It should be noted that Platinum does not invest by reference to the weightings of the Index. Underlying assets are chosen through Platinum's individual stock selection process and as a result holdings will vary considerably to the make-up of the Index. The Index is provided as a reference only.

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