

# Maturing Public Biotech Companies in the Australian Context

I have been asked to talk on “Maturing Public Biotech Companies in the Australian Context”. I have, however, taken the liberty to slightly amending the title of my talk, to include some overseas experiences also.

By “maturing” biotech companies, I am referring to those biotech companies that are involved in research and development and have also commercialisation activities.

In reviewing the achievements of biotechnology in the 26 years or so since the industry was founded in the US, in early 1976, I am inspired by the stunning scientific accomplishments and dynamic growth of this industry both here and in the rest of the world, as evidenced by scientific breakthroughs, therapeutic firsts and financial successes.

The US industry currently includes over 350 public and over 1,000 private companies. There are over 75 Biotech companies listed on the ASX with a total market capitalisation, as at the beginning of August 2002, of nearly AUS\$ 12 billion.

Of the biotech companies listed on the ASX barely five have recurring revenue streams and even fewer can remotely project profits within the next couple of years. The industry is, therefore, in Australia, at its infancy.

At last count, about 140 biotech products approved by the US Food and Drug Administration were on the market and more than 350 active biotech projects were in late stage clinical trials.

It is important to remember that this growth and success have not come inexpensively. The Australian biotech industry spent AUS\$ 159 million on R&D in 1999/2000. While the US biotech industry spent nearly US\$ 14 billion annually on research and development. The cost associated with bringing a drug to market has been estimated to be approximately US\$ 500 million. It still takes approximately 10 years to bring a drug to market from research through approval.

Although the FDA has dramatically decreased approval times over the past five years, this has not translated into faster drug development. This is due partly to the fact that the FDA often requires more protracted, larger Phase II or Phase III studies, which, while, making submissions more straightforward, add to the cost and time of drug development cycles.

My review is overshadowed by the dark clouds of depression that has descended upon, not only in the biotech sector, but virtually over the whole stock market. This has caused untold funding problems to most Biotech entities in Australia.

When Internet and telecommunication companies went over the Niagra Falls in a barrel, venture capital companies scrambled for a lifeboat. Some have found one in the health-care and biotechnology sectors, which began to receive another look from

venture capitalists after getting scant attention during the Internet craze in the late 1990s.

Money began pouring into the biotechnology sector when the technology bubble burst.

Statistics on the healthcare and biotech sectors in Australia over the period 1996-2001 showed that from almost no investment five years ago, now, 7% of Australia's 250 biotech companies receive some sort of venture funding. Venture capital investment in the healthcare and biotech sectors has risen from \$26 million in 1996/7 to \$116 million in 2000/1, the majority in biotechnology. Venture capital investments in 2001 is second to private placement – a vast improvement compared to 1998 where venture investments came behind private placement, secondary offering, IPOs and other sources.

The number of start-ups in biotech sector then grew dramatically. As can be seen from the amount invested by venture capitalists, capital was available for investment. Only the impatience for funding is met with the increasingly conservative assessments by venture capitalists in their investment decision policies.

Recently, however, the money started to slow down and public companies were starting to feel the downturn.

Statistics from the US showed that funds raised by biotech companies, by way of public offering, in the US for the eight months ended August 2002 amounted to approximately US\$ 980 million compared to US\$ 2.8 billion for the same period last year.

Finally, the death nail was planted when confidence in the stock market started to erode through the plummeting fortunes of companies like Enron and ImClone and WorldCom that affected the entire stock market.

Relations with venture capitalists have become difficult. Suddenly the language spoken by scientists and venture capitalists is as divergent as English is to Chinese. This is unfortunate as the number of start-ups in the biotech sector has grown dramatically and the urgency of funding appears to have outstripped the supply of venture capital.

According to an industry report, the UK venture capital industry has suffered a sharp decline in the second quarter of the year. From the beginning of April to the end of June, there were only 44 venture capital deals worth a total of US\$327 million. This compares with 99 deals worth a total of about US\$ 485 million for the same period last year. A spokesman for VentureOne said that at the peak in the first half of 2000, seed and first round companies received 58% of all investment, against 25% today.

The biotechs who want money desperately blame the venture capitalists for holding money back and the venture capitalists trying to ease the concerns of the scientists now claim that they need to understand the science before disbursement.

Can we recall that it was, after all, just a couple of years ago, when entrepreneurs who were barely old enough to vote were deciding which venture capitalist they would condescend to accept money from.

And, do you remember that their rallying cry was, "Profits are for wimps". Nobody says that any more. Nobody would now say that amazon.com was a good buy at US\$ 300 a share.

Yes, things have changed! Things have changed for most of us. Money is harder to find.

In Australia, there was a range of reasons why investors are not willing to put in the dollars. For instance, investors had been disappointed by negative clinical trial results from companies, such as experienced recently by a Melbourne and an Adelaide-based biotech company, and this had impacted on their psychology.

Also, there was a lack of new products in the pipeline and investors began to become weary of "the blue sky syndrome".

Commentators on the Australian biotechnology industry question how all of the new companies being established will thrive and grow. With a tiny domesticated market and vast distances to major international markets, only companies with a vision to target customers outside Australia will ever have the scale to invest in the required R&D that are needed.

Fewer than 20 companies in 1998 spent more than 5% of their revenues on R&D and a very low number of companies, around 3,000, registered for the 125% tax concession for R&D in that year.

Apart from natural resources, the other competitive advantages that Australia has are world competitive science skills and one on the lowest cost R&D capabilities in the world.

The stark reality is that most of these new companies will not survive.

One very powerful solution to this problem will be for Australian biotechs to pool their resources and make the most of their considerable expertise available.

Another way is to enter into partnership relations with international biotechs. After all, Australia's reputation as churning out world class scientists is acknowledged internationally.

The largest pharmaceutical companies are presently suffering from a crisis of stalled R&D productivity. As a result, many of them are having trouble coping with investor expectations of fast profits and sales growth.

Biotechnology companies are finding it easier to give over some of the rights to their products on increasingly favourable terms. In return they benefit from the larger groups' huge sales forces and scientific development expertise.

A typical arrangement would be for the biotech to receive an up-front payment and further payments based on development milestones and regulatory approval.

Some examples of these arrangements are:

Amrad - has developed a number of collaborative alliances with internationally recognised partners, as well as leading Australian research institutes, to develop treatments for infectious diseases, neurological conditions, and allergy and inflammation, two preclinical research projects, AM132 (with Gencell) and IVF (with Serono).

CSL – peptic ulcer late stage research with AstraZeneca and Genital warts in clinical development with Merck.

Norwood Abbey Ltd – has entered into a new agreement with Monash University covering research on Thymic function and improved immune function.

Peptech Ltd – Peptech in addition to acquiring over one-third of Domantis, has also entered into a research collaboration where Domantis will develop four targets for Peptech against front end research and development payments over three years and royalties from sales of the products.

Remember burn-rates? The words that once struck fear into the hearts of dot-com investors are back – only this time biotechnology investors are growing nervous. The NASDAQ biotechnology index is down by nearly half since the beginning of the year, a decline that makes it all but impossible for cash-hungry biotech firms to raise money in the stock market this year. Many sceptics doubt that next year will be much better. The public-financing window, in my view, "is closed and triple-locked" at least for the foreseeable future.

That puts many publicly traded biotechs and their expensive R&D programs in a bind. So, for the first time in years, biotech investors are again measuring firms by their "survival indices", or how long it will take a company to burn through its cash on hand.

This year, PPL Therapeutics, the company that created Dolly the sheep, said it would put up for sale the technology it used to clone piglets, because it could not fund further research. Recently, the company's shares sank to an all-time low of 13½¢, from a peak of 409.1p in 1996, when investors enthused over the birth of Dolly.

And Pharming, the group that created Herman, the cloned bull, delisted its shares in May after failing to secure funding.

On the flip side, the current bleak scenario places biotech with adequate financial resources in an enviable position and gives them a great opportunity to expand through acquisition.

Searching to expand product pipeline is one of the major pre-occupation of most biotech companies that are already cashflow positive. One of the principal responsibilities of a CEO is to ensure that shareholder value continues to be created.

The difficulty that we have encountered in Peptech is finding these projects to add on to our pipeline. Judging from the number of proposals we receive virtually daily, it confirms to us that there are many biotechs out there that are in need of working capital. A great majority of proposals reviewed have no issued patents to protect their platform technology and most of the proposals are very early stage discovery projects and clearly ones that Peptech cannot get involved with.

The temptation is therefore to conclude that overseas projects are the more relevant ones.

Looking at the overseas experience, the drug industry has been shaped by a string of mega mergers through the 1990s to today, with Pfizer's deal to acquire Pharmacia the latest.

GlaxoSmithKline, of London, has gone through so many mergers during the past decade that its name resembles a law firm's. But Glaxo is suffering right along with the rest of the drug industry and has all the signs of suffering through, what commentators are expecting, a difficult 2003.

Given the example of Glaxo, why, then, has [Pfizer Inc.](#) decided to buy [Pharmacia Corp.](#)? Will the rest of the industry follow its lead? Pfizer's bid of US\$ 60 billion for Pharmacia is worth almost as much as the entire value of pharmaceutical deals completed in 2001. So let's spend a few minutes to examine the possible reasons for the deal.

To answer those questions requires an understanding of the fundamental issue facing the drug industry - the drought in new-drug development. This drought threatens the financial health of drug makers, and forces consolidation -- even though consolidation doesn't seem to help drug-company labs create more drugs.

After falling for five years, new-drug applications to the Food and Drug Administration are expected this year to slide further. Through the first five months of 2002, the FDA had received just two new applications. Last year, total new-drug applications dropped to 24, less than half the 53 received in 1996.

The Pfizer/ Pharmacia deal can thus be viewed as being a marriage of convenience.

As mentioned in my delivery earlier, the cost of developing a drug is not only extremely costly but it is also time consuming. By acquiring Pharmacia, Pfizer would benefit from Pharmacia's three new approval filings this year and a cardiovascular drug that could add to Pfizer's hypertension franchise and exploit the lucrative market for drugs to treat congestive heart failure.

Equally significant is the addition of Pharmacia's portfolio of new drugs, with few patent problems until nearly the next decade. Timothy Anderson, analyst at Prudential Securities, said Pharmacia would also bring a few late-stage drugs in clinical

development. The lack of a new pipeline was from Pfizer's view the major reason for the deal.

Observers believe that arising from the crisis of "stalled R&D productivity" instead of paying such huge sums in acquiring these pipeline products, large pharmas could well enter into partnering arrangements with biotechs. I can envisage cross-border partnership relationships happening in the Australian biotech/pharma scene as the local sectors mature and as the larger overseas entities realise the low-cost resources available in Australia.

I tend to agree with the conclusion of Ernst & Young, contained in their global industry report, *Beyond Borders: The Global Biotechnology Report 2002*, that the challenge for Australia is "to improve commercial exploitation of its biotech R&D, where the bulk of fundamental research is undertaken in Australia, and to develop companies through local, multinational or overseas partnerships."

Effective patent protection is an essential reward for the tremendous investment in research and development of new asset be it technology or drugs.

On the intellectual property front, there have been several key developments within the past few years that have raised the bar of our industry and will lead to more effective drug development. The decision of the Festo case comes to mind. I do not propose to get into the case which, I think, should best be left to patent attorneys for their interpretation.

Let me turn very briefly now to the recent developments concerning public listed companies generally. Critics have been hammering at the quality and time-lines of when and how soon after the financial year-end the financials should be released for investors' consumption.

Since the debacle that was Enron et al, there is rising demand for increased disclosure. Everyone from the SEC, in the US, and George W. Bush has demanded that investors be given more information. And faster. The SEC has proposed cutting the time allotted for filing quarterly reports to 30 days after the end of the period – down from 45 days. Annual reports have to be mailed in 60 days, down from 90. Our Australian politicians have joined the same bandwagon, as have other regulators. While outraged politicians and regulators demand more, one vital point goes ignored. Investors don't want just more information, and faster at that, they want better information. Too much disclosure may indeed prove to be a very bad thing, if the ton of chaff makes it impossible to find the kernels of truth. The best hope for investors is that the current uproar will provide fuel for a second phase of reform, one in which disclosure is fundamentally restructured to make it more useful.

In requiring Australian companies to expense share options, the share option scene in Australia has been painted with the same brush with that of the US. This is not right. Our share option plans are much more similar to plans in the UK than in the US. In both the UK and Australia, the majority of plans have clearly stated performance hurdles. In the US share options do not utilise performance hurdles. Therefore a very important ingredient is missing from the majority of the share plans in the US. As a consequence of possibly having to expense share options, most companies would

probably reduce the issuance of these incentives as part of the long-term portion of remuneration packages, which are designed to attract, motivate and retain executives.

In conclusion, I would summarise that the criteria for biotech investment have changed.

Right now, investors are more likely to back companies with product candidates further along the development process. A partner from a prominent US Venture fund is quoted as saying "You get a later-stage product, a company that's already public with liquidity, and in some cases already has a significant profile with the investment community. If you can get them at your valuation, then why not commit to investing in it?"

My advice is therefore simple. Focus on reaching your milestones. We are a privileged lot in being involved in an industry that will improve the health and well being of people and this by itself is a noble calling.

For the biotech companies listed on the ASX, I would add that biotechnology is a long-term business that is best measured in decades rather than months. People involved with these companies should, therefore, not focus on the share price movements alone as the stock market will decide it for you – you don't have the power to control the share price movements.

It was an honour to speak to you. I wish every one of you the best of luck.