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Can determination and persistence lead to market growth?

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What would you like to grow?

Strong growth reflects market confidence

The Life Sciences Index strongly outperformed the ASX All Ords during the second quarter of 2011, reversing the trend of the previous quarter to post growth of 12.8 per cent.

The Life Sciences Index ex majors was a major contributor to the sector's revival, increasing by 30.9 per cent, driven by emergence of two companies with more than $16m market capitalisation; Mesoblast and Sunshine Heart.

The broader Life Sciences Index grew by 25 per cent annually in stark contrast to the All Ordinaries Index, which contracted by 0.7 per cent.

"The growth which the Life Sciences sector experienced in the December quarter reflects the quiet confidence the market has in this often patchy but determined sector," said PwC's Australian Life Sciences Industry Leader, Craig Lawn. "The message for companies in the sector is to remain focused on their strategy and take advantage of the positive signs being shown."

Sector performance in detail

The Biotech Index ex majors experienced growth of 43.4 per cent. This strong performance was substantially driven by the increase in Mesoblast (152 per cent) which now has a market cap of $1.2 billion. The prior trend of decline in the Medical Devices Index ex majors abated with growth of 10.8 per cent recorded. The ex majors' performance in both these subsectors led to the Biotech Index and Medical Device Index growing by 14.9 per cent and 8.7 per cent respectively.

The Life Sciences Index ex majors performed strongly, with yearly growth of 117.6 per cent on top of its quarterly increase of 30.9 per cent.

IPOs and secondary financing

There were no Australian IPOs in the December quarter, continuing the trend of the previous quarter, but the Australian arm of US-based REVA Medical floated on the ASX. In the US, seven IPOs occurred in the pharma/biotech sector.

There was a resurgence in capital raising during the quarter with growth of $120 million. Secondary financing went from $27 million in Q1 to $147 million in Q2, which indicates a renewed confidence following some consolidation.

The frequency with which companies approached the market to raise funds increased only slightly, from 42 in Q1 to 54 in Q2, but the amounts raised have tripled for both market sectors.

This increase was also driven by a number of larger companies taking advantage of restored market confidence to raise funds, including Antisense, which raised $23.6 million, Unilife, which raised $23 million, and QRx Pharma, which raised $19.7 million.

" The increase in secondary financing is a positive sign, indicating investors are seeking worthwhile opportunities in the sector", said Manoj Santiago, the leader of PwC's Life Science practice in Sydney.

Another three companies were removed from the index during the quarter, reducing the number of companies represented in *BioForum* to 103.

Craig Lawn
PwC Private Clients

Manoj Santiago
PwC Private Clients

pwc.com.au/privateclients

PwC Australia Life Sciences and Innovation Practice contacts

Australian Industry Leaders – Life Sciences

Craig Lawn
Phone: +617 3257 5672
Email: craig.s.lawn@au.pwc.com

Michelle Chiang
Phone: +612 8266 7575
Email: michelle.w.chiang@au.pwc.com

Manoj Santiago
Phone: +612 8266 4494
Email: manoj.santiago@au.pwc.com

Sydney

Assurance

Manoj Santiago
Phone: +612 8266 4494
Email: manoj.santiago@au.pwc.com

Tax

Craig McIlveen
Phone: +612 8266 2261
Email: craig.mcilveen@au.pwc.com

Pharmaceutical Industry Leader

John Cannings
Phone: +612 8266 6410
Email: john.cannings@pwclegal.com.au

R&D Tax

Sandra Mason
Phone: +612 8266 0470
Email: sandra.mason@au.pwc.com

Transactions

Kate Julius
Phone: +612 8266 5835
Email: kate.julius@au.pwc.com

Corporate Finance

Adrian Bunter
Phone: +612 8266 5099
Email: adrian.bunter@au.pwc.com

Licensing and Forensic Accounting

Cassandra Michie
Phone: +612 8266 2774
Email: cassandra.michie@au.pwc.com

Brisbane

Craig Lawn
Phone: +617 3257 5672
Email: craig.s.lawn@au.pwc.com

Troy Morgan
Phone: +617 3257 8934
Email: troy.morgan@au.pwc.com

Newcastle

Stephanie Fabian
Phone: +612 4925 1278
Email: stephanie.fabian@au.pwc.com

Melbourne

Andy Barlow
Phone: +613 8603 4230
Email: andrew.barlow@au.pwc.com

Sam Lobley
Phone: +613 8603 3689
Email: sam.lobley@au.pwc.com

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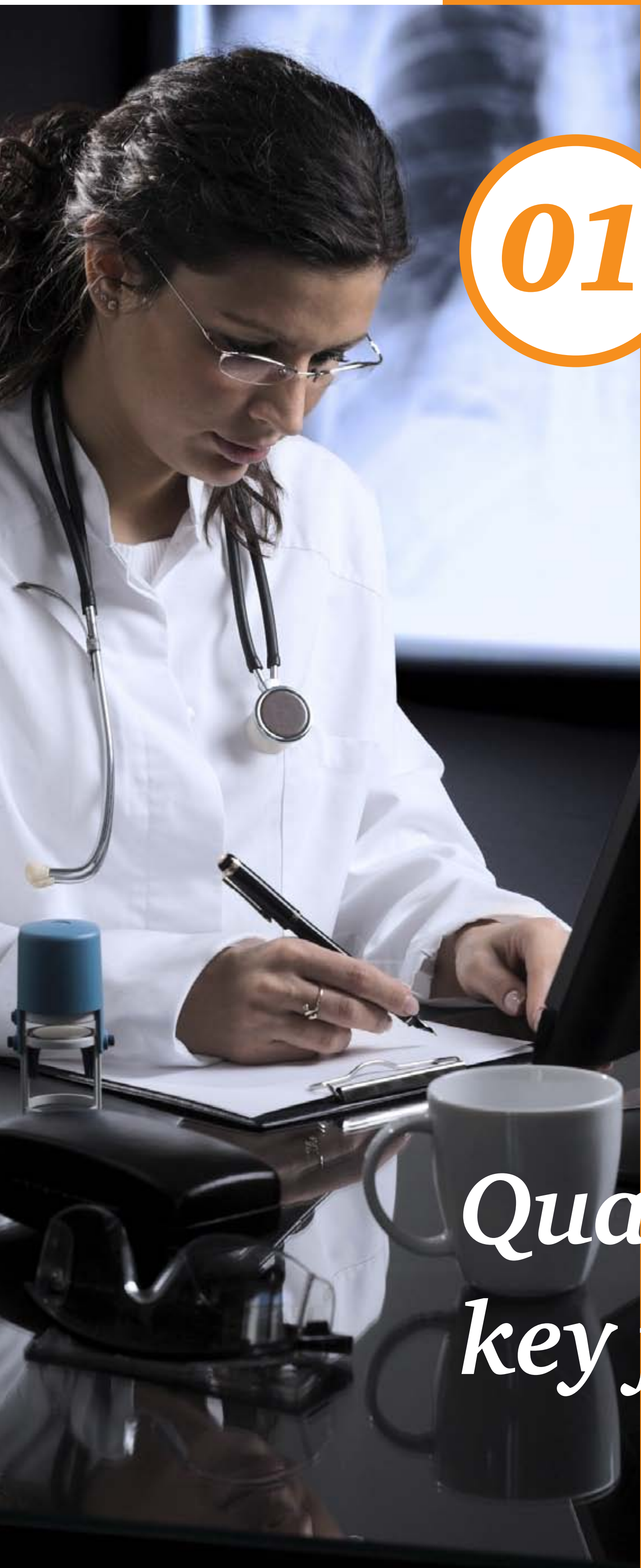


01

Quarterly key findings

Market performance	Q2FY11	Page
Life sciences industry total MCap	A$37,655m	13
Life sciences industry growth	12.8%	
Pharma/biotech subsector total MCap	A$25,228m	15
Pharma/biotech subsector growth	14.9%	
Medical device subsector total MCap	A$12,427m	15
Medical device subsector growth	8.7%	
Individual company performance		
Top individual performer	Anteo Diagnostics Ltd	20
Change in market cap over the past four quarters	1,114%	20
Bottom individual performer	Antisense Therapeutics Ltd	21
Change in market cap over the past four quarters	-87%	21
Financing		
Australian IPO count	-	16
Total raised (A$m)	-	16
US IPO count	7	16
Total raised	A$509m	16
Australian secondary financing count	54	18
Total raised (A$m)	A$147m	18
US secondary financing count	68	18
Total raised	A$2,233	18

	Q2FY11	Page
Announcements – Australia		
Total number of partnerships formed this quarter	34	23
Total number of mergers and acquisitions	16	25
Total announcements for clinical trials	30	26
Total number of regulatory announcements	26	28
Other	136	30

02

Feature articles

Access to medicines a key aspect of PBS reforms

John Cannings
PwC Partner, Pharmaceutical Industry Leader

Ian Thompson
Managing Director, Amgen Australia Pty Ltd

Since the last major price reforms in 2007, spending on the Pharmaceutical Benefits Scheme (PBS) has continued to be under intense scrutiny from the Federal Government. Under the new memorandum of understanding (MOU) signed between Medicines Australia and the Federal Government, further major pricing reforms have been agreed to ensure the viability of the medicines industry, and provide head room for new medicines. PwC's Pharmaceutical Industry Leader, John Cannings, asked Amgen Australia managing director Ian Thompson for his views on the historic deal.

Ian, what benefits do you expect to flow to the industry?

The signing of the MOU was a significant step forward in providing price certainty for the innovative medicines industry, and headroom for new medicines.

One of the ongoing challenges for the industry is that in Australia new medicines are not valued highly by international standards. Overall Australia has historically spent less on pharmaceuticals than the majority of OECD countries both relative to size of economy and as a proportion of total health expenditure. According to the OECD, we pay some of the lowest prices for originator medicines relative to economy wide-prices of all OECD countries, and some of the highest generic prices.

The MOU has been the most collaborative policy approach between the Federal Government and Medicines Australia to date. Essentially it means all drugs in the F2 formulary will now be subject to price disclosure. In addition, from February 2011 price reductions of 16 per cent are being applied to single brand PBS drugs upon the listing of a competitor brand.

The benefit of this arrangement is that for taxpayers and government there will be an estimated saving of $1.9 billion over five years; the price of many medicines will fall by as much as $21 per script and for industry, the benefit of price certainty for the tenure of the agreement (four years). In addition, the MOU contains measures to improve access so that patients should receive faster access to new medicines.

That is why the industry is extremely disappointed and concerned at the Government's recent decision to defer the listings of some medicines on the Pharmaceutical Benefits Scheme (PBS) and to require all new PBS listings with a net cost to Government to be approved by Cabinet. It undermines the key strength of the MoU between the industry and the Commonwealth – a predictable policy environment.

Do you and Amgen have a view about the wider health care reform agenda of the Federal Government?

Amgen has watched with interest the Federal Government's ambitious and costly plan for health reform. As an organisation committed to improving patient lives, we welcome any action that would make the system more effective and efficient.

The question for us is what the role of medicines in the hospital setting will look like. For instance, none of the 123 recommendations outlined in the National Health and Hospital Reform Commission report made reference to medicines.

Uncertainty still remains but what is clear is that industry needs to be at the table with government as discussions continue. The Australian pharmaceutical industry spends more than $1.023 billion on R&D We expect that clinical trials will continue to be the main focus in Australia.

How do you believe we can protect clinical trial investment and what does this mean for Amgen?

On average, the industry conducts 2,000 clinical trials in Australia each year; in fact last year more than 18,000 Australians participated in clinical trials run by the Australian medicines industry.

Clinical trials are vital because ongoing investment means early access for patients, global recognition for our research, retention of our brightest science and medical minds and practical experience for students and researchers.

However, the reality is that our clinical trial activity is under threat. Local trial registrations have dropped by 33 per cent in two years while other destinations such as China, India and Singapore have become increasingly competitive.

We need a number of factors in place to protect clinical trials in this country. The proposed R&D tax credit is a first step. And the Government's recent report in relation to the Clinical Trials Action Group commits it to deliver on many of the improvements which industry has identified as critical to ensuring that we remain competitive.

As we are already recognised as having high quality clinical care and development opportunities, simplifying the regulatory environment around clinical trials – as outlined in the CTAG report - is another opportunity to attract ongoing investment.

In addition, the report addresses key issues around the timeliness of clinical trials approvals; the benefits of e-health for clinical trials; improving patient recruitment and support for clinical trial networks. This will help build and protect clinical trial credentials.

PwC appreciates Ian Thompson taking the time to speak with John about various areas of strategic focus for Amgem and the broader biotechnology and pharmaceutical industries.
www.amgen.com

US fears stem venture capital flow

Venture capitalists were less willing to fund the life sciences in 2010 but the outlook for 2011 is better.

US venture capital funding for the sector fell sharply during the fourth quarter of 2010 and declined in terms of dollars for the full year, according to the *MoneyTree Report* by PwC and the National Venture Capital Association (NVCA), based on data from Thomson Reuters. Annual venture investment for the sector dropped by 2 per cent in value from 2009 but increased 5 per cent in volume, with $6 billion going into 784 deals.

Life sciences and networking and equipment were the only two sectors seeing a decrease in annual investment during 2010. Venture funding for all industries rose 19 per cent annually in dollar value and 12 per cent in volume – the first increase since 2007.

The life sciences' share of total venture capital dollars invested shrank to 28 per cent during 2010 from 33 per cent in 2009. Biotechnology investing grew by 3 per cent in dollar value and 12 per cent in volume, with $3.7 billion going into 460 deals.

The biotechnology industry, which led all industries in 2009 in share of total dollars invested, slipped into second place behind software during 2010. In the fourth quarter, biotechnology investing declined 24 per cent in dollar terms and fell 15 per cent in volume, with $685 million going into 94 deals.

A possible reason for this decline in funding for the life sciences sector was an increasingly challenging regulatory environment. There was uncertainty relating to FDA approvals, which is thought to have affected venture capitalists' outlook. Until there is more clarity on the regulatory approvals process, venture capitalists are expected to remain cautious.

Funding lowest since 2003

Life sciences venture funding in the fourth quarter is down on figures from the fourth quarter of 2009 by 42 per cent and $1.1 billion. This decline marked the largest year-over-year decrease since the first quarter of 2009 and the lowest level of funding for the sector since the first quarter of 2003.

Although funding in the second quarter rose steeply, it dropped off significantly in the third quarter and again in the fourth quarter. This could be attributed to the seasonal slump in the holiday period.

Deal volume was up 4 per cent on an annual level, however for the fourth quarter life sciences deal volume decreased by 21 per cent to 165 when compared with the same quarter of 2009.

When compared with the third quarter of 2010, the number of early stage deals fell 12 per cent and late-stage volume decreased 17 per cent.

The average deal size for the fourth quarter of 2010 decreased by 27 per cent to $6.58 million compared with the fourth quarter in 2009.

Funding for biotechnology and medical devices segments

The investment split in life sciences has remained consistent over the past two years. During the fourth quarter of 2010, biotechnology accounted for 63 per cent of funding, while medical devices claimed 37 per cent. During the fourth quarter of 2009, split was 59 per cent and 41 per cent.

During the fourth quarter of 2010, biotechnology funding decreased 38 per cent to $685 million from the same quarter in 2009. The number of deals decreased by 19 per cent to 94.

Biotechnology funding was up on figures from 2009, showing a 3 per cent year-over-year rise.

The medical device industry saw a 48 per cent reduction in funding in the fourth quarter of 2010 compared with the previous year. The number of deals also declined 24 per cent to 71. Overall in 2010, the medical device industry showed a decrease of 9 per cent in dollars invested compared to the previous year.

Compared with the same quarter in 2009, biotech research, biotech industrial, and biotech animal funding increased by 177 per cent, 35 per cent, and 136 per cent respectively. The four biotechnology subsegments that decreased during the fourth quarter compared to the same quarter in 2009 were biotech human, biotech pharmaceutical, biotech equipment and biosensors.

Funding for all medical device subsegments decreased during the fourth quarter of 2010 compared with the same quarter of 2009.

Life sciences funding by stage

Compared with the same period a year ago, both early-stage and late-stage funding decreased for the fourth quarter of 2010. Early-stage funding decreased 49 per cent to $511 million and late-stage funding decreased 35 per cent to $574 million.

Annual early-stage funding in 2010 declined 9 per cent while late-stage funding increased 7 per cent. This decrease went against the overall venture funding trend for life sciences. Early-stage deal volume decreased 23 per cent to 89 deals during the fourth quarter compared to the same period in 2009, with a smaller deal size of $7.5 million.

Early-stage funding declined by 38 per cent from the fourth quarter of 2009 to $364 million, while late-stage funding contracted by an equal percentage over the same period to $321 million.

Annual early-stage deals for the biotechnology industry rose 6 per cent while late-stage deals remained flat compared to 2009.

For the medical device industry, early-stage funding dropped 64 per cent to $147 million in the fourth quarter of 2010 compared with the previous year, while late-stage funding decreased 32 per cent to $253 million over the same period.

Funding was up in the last quarter by 10 per cent compared to the third quarter while late-stage funding dropped by 43 per cent.

Annually, early-stage funding for the medical device industry declined 34 per cent but late-stage funding increased 14 per cent.

First-time funding and follow-on funding trends

During the fourth quarter of 2010 in the life sciences sector, $194 million went on initial investments, a decrease of 30 per cent year over year. Follow-on funding decreased 44 per cent to $891 million during the same period.

First-time deals in the life sciences sector averaged $5.1 million in 38 deals during the fourth quarter of 2010. This is compared with an average deal of $7 million in 127 deals for follow-on funding.

Industries benefiting the most in dollar terms in first-time financings in 2010 were software, biotechnology, and industrial/energy. Industries with the most first-time deals in 2010 were software, biotechnology, and media/entertainment.

Venture capital outlook

Despite the downward trend in the life sciences sector during the latter half of 2010, the outlook for venture capital investment during 2011 is already trending upwards.

“The medical device industry saw a 48 per cent reduction in funding in the fourth quarter of 2010 compared with the previous year. The number of deals also declined 24 per cent to 71. Overall in 2010, the medical device industry showed a decrease of 9 per cent in dollars invested compared to the previous year.”

Supplying the future: which path will you take?

Pharmaceutical companies must adopt new manufacturing and distribution methods to succeed in a changing market.

The pharmaceutical industry is experiencing major upheavals associated with the need to move to more efficient models for discovery, development and sale of medicines. Companies have responded to these challenges in different ways. However, they've invested relatively little effort in reconfiguring their manufacturing and distribution operations even though a significant amount of the cost base of most bio-pharmaceutical companies is the supply chain. It's the link between the laboratory and the marketplace and includes everything from sourcing raw materials to manufacturing and packaging to inventory warehousing, transportation and distribution.

There is growing demand for more customised products and services, and services are becoming a more complex and increasingly important source of differentiation for makers of medicines. They will figure more prominently in the strategic thinking of industry leaders in coming years.

We believe there are six key trends that are reshaping the environment in which the industry operates and which are dictating the need for a different way for pharmaceutical companies to make and distribute their products.

Emerging trends

The product base will become more diverse. The growth of biologics, bioengineered vaccines and advancements such as stem cell research and nanotechnology are diversifying with products that have a shorter shelf life and which require more distribution processes than conventional small molecule pills.

The current system for assessing, approving and monitoring medicines will be replaced by one in which new therapies are granted 'live licences' or limited label approvals, contingent on further testing to confirm their safety and efficacy in different patient populations. This phased approach means that supply chains need to be flexible and have more adaptable cost structures that preserve gross margins at each stage.

Governments and regulatory agencies are becoming much more demanding, asking for clear evidence that the medicines they buy really are effective. As a result, the industry will not only have to manage companion diagnostics, it'll also have to ensure that patients get the most from the therapies they receive by supplementing products with a wide range of supporting services. The industry will need to consider how it addresses the end-to-end spectrum of delivering and evaluating medicines with patients.

The digitalisation of healthcare, with increasing mobile health applications and remote monitoring, is moving healthcare delivery beyond hospitals and physicians' offices into homes, communities and direct to patients. Pharmaceutical companies will need real distribution networks and demand-driven manufacturing and distribution processes. Where manufacturers get it wrong, the regulators are taking action.

The growing importance of emerging markets demands from pharmaceutical companies a good understanding of the needs of these markets and companies will have to tailor their offerings accordingly.

Finally, the ability to manage risk and compliance will be more crucial than ever before due to more public awareness and more diligent enforcement of regulations. Globalisation, the foreign sourcing and manufacture of regulated products, and an increase in the volume and complexity of imported products have increased the need for supply chain control to identify the risks of contamination and fake medicines.

New technology key

Timely access to various emerging technologies will help to increase the efficiency of the manufacturing and distribution functions. Some of these technologies will enable the industry to build quality into its manufacturing processes, while others will enhance its throughput or facilitate collaboration to realise economies of scale.

From a development perspective, more sophisticated drug delivery techniques will make formulations easier to manufacture. This will enable companies to minimise investment in product and process development until the later stages of the product development lifecycle. Also, computational modelling will enable companies to design and validate manufacturing process virtually. The conventional process of scaling up will be replaced by ‘numbering up’, using micro reactors in parallel arrays, which helps control costs but also parameters to improve yields.

In the manufacturing stages, virtual engineering will facilitate the rapid configuration of existing manufacturing lines for different products.

In the distribution phase, new technologies like cloud computing will provide the information platforms needed to share data securely and economically, analyse it and respond rapidly to demands. Similarly, tracking technologies will enable companies to monitor products from the factory gate to the patient.

‘Patient interface’ technologies will bring improved efficiency by bringing pharmaceutical companies closer to patients. The information they generate will help patients manage their health more effectively and the healthcare providers to monitor compliance in real time.

Technology is not the only answer though. More collaboration between the parties involved in healthcare will make the industry more efficient. The supply chains for designing, manufacturing and distributing pharmaceuticals and medical devices and health services will integrate so that all partners can see the full picture and plan ahead more accurately and cost-effectively.

The successful pharmaceutical companies of the future will be those that integrate all these opportunities and build supply chains with new manufacturing, distribution and service techniques. We outline four potential scenarios. Depending on their product and channel portfolio, most companies will have to manage more than one scenario simultaneously.

Companies that concentrate on specialist therapies might exit from manufacturing altogether and, instead, become a virtual manufacturer, outsourcing the entire supply from production of the earliest clinical batches to full-scale manufacturing, packaging and distribution through a network of integrated supply partners. Alternatively, they might position themselves as service innovators, building supply chains that are capable of manufacturing and distribution and managing multiple suppliers of integrated, valued-added health management services.

Mass-market manufacturers, such as the makers of generics, might position themselves as high-volume, low-cost providers, borrowing lessons in lean manufacturing, strategic pricing and inventory management from the consumer products industry. Another option for mass-market manufacturers is to turn their supply chains into profit centres that combine economic manufacturing and distribution of satellite services, such as direct distribution to hospitals and pharmacies, and then to franchise them as a stand alone offering for both internal and external customers.

“We outline four potential scenarios. Depending on their product and channel portfolio, most companies will have to manage more than one scenario simultaneously.”

03

Market performance

Performance overview

Figure 1: Weekly performance over the quarter of the Australian life sciences sector compared to major indices

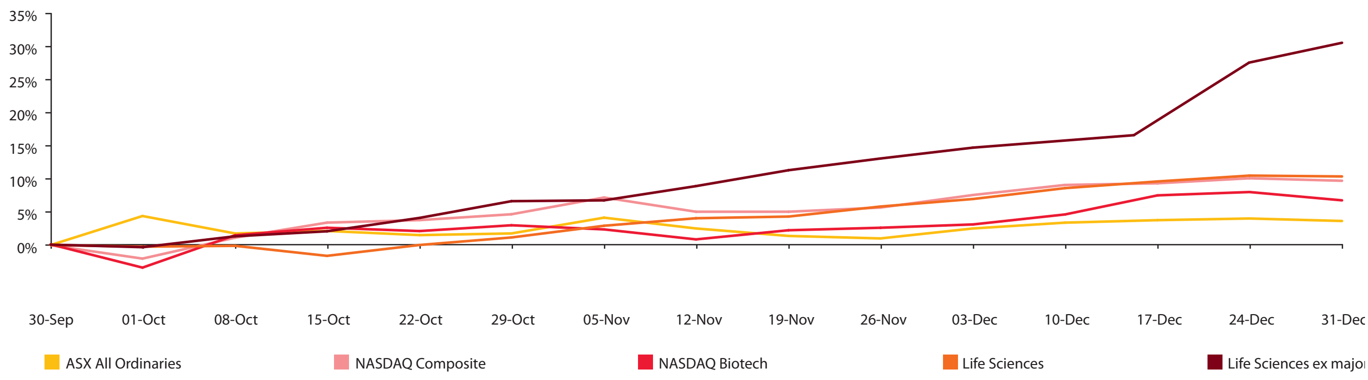


Table 1: Quarterly performance of the Australian life sciences sector compared to major indices

	Value		
	30-Sep-10	31-Dec-10	Change
ASX All Ordinaries (Index)	4,637	4,847	4.5%
NASDAQ Composite (Index)	2,369	2,653	12.0%
NASDAQ Biotech (Index)	895	970	8.4%
Life Sciences (market cap A$m)	33,381	37,655	12.8%
Life Sciences ex majors (market cap A$m)	6,114	8,005	30.9%

Graph 1: Quarterly performance of the Australian life sciences sector compared to major indices

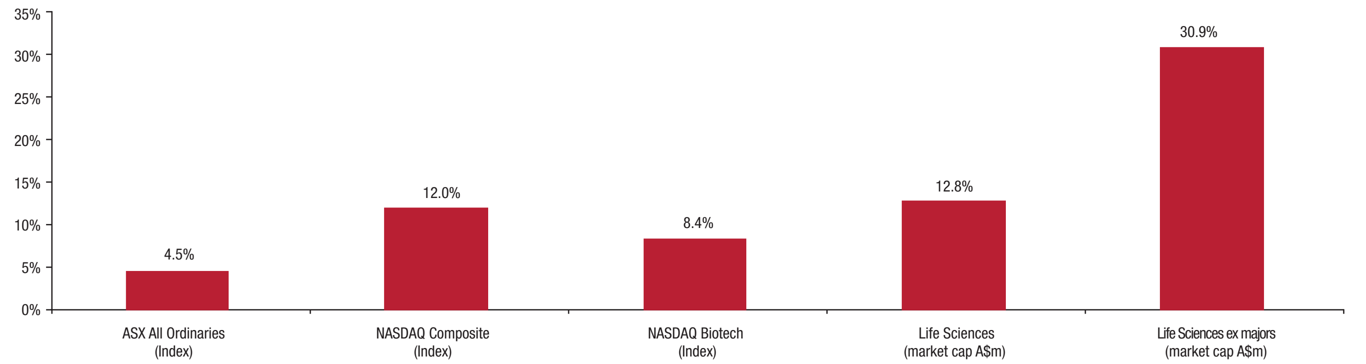
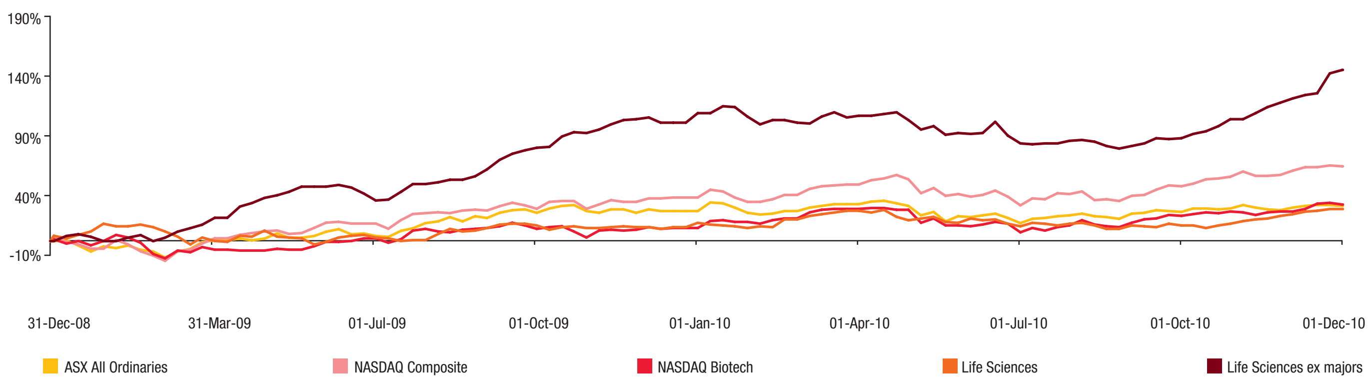


Figure 2: Two-year comparison of the Australian life sciences sector by market capitalisation compared to major indices



Performance overview (cont.)

Table 2: Yearly performance of the Australian life sciences sector by market capitalisation compared to major indices

	Value		
	31-Dec-09	31-Dec-10	Change
ASX All Ordinaries (Index)	4,883	4,847	-0.7%
NASDAQ Composite (Index)	2,269	2,653	16.9%
NASDAQ Biotech (Index)	745	970	30.1%
Life Sciences (market cap A$m)	30,115	37,655	25.0%
Life Sciences ex majors (market cap A$m)	3,678	8,005	117.6%

Graph 2: Yearly performance of the Australian life sciences sector by market capitalisation compared to major indices

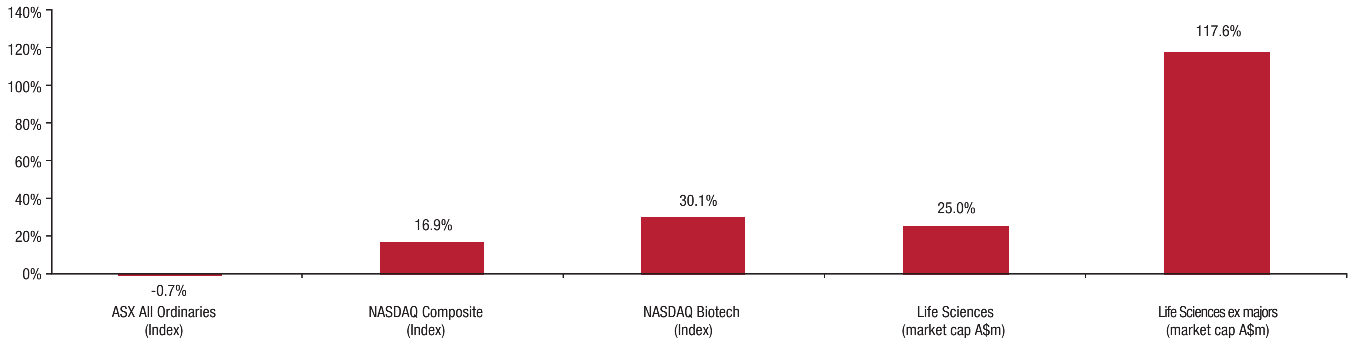


Figure 3: Quarterly performance of the Australian life sciences sector and subsectors

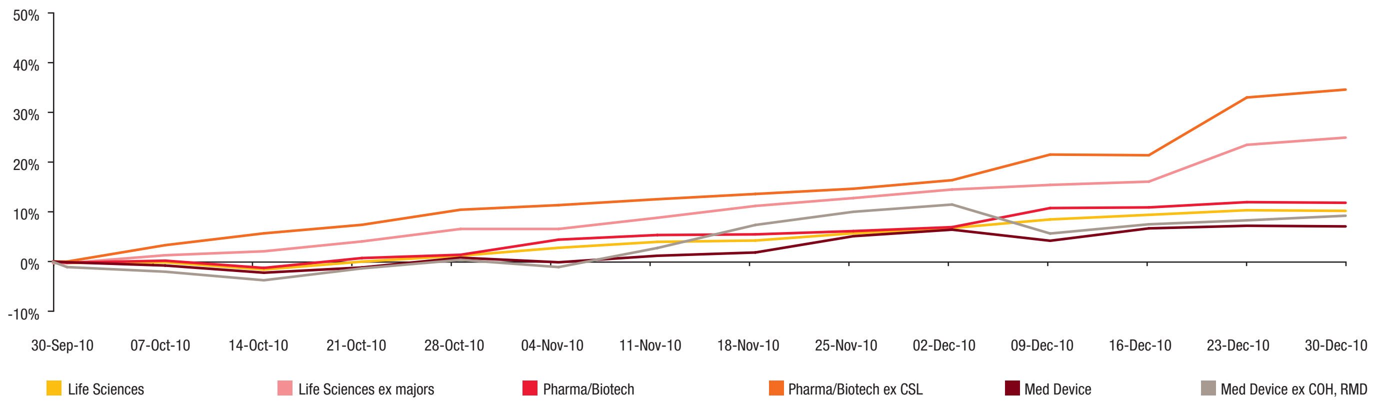


Table 3: Quarterly summary of the Australian life sciences indices' performance

	MCap (A$m)	% of total value	Companies with share price gains	Proportion of subsector up	Companies with share price losses	Proportion of subsector down	Companies with share price flat	Proportion of subsector flat	Total number of companies
Pharma/Biotech	25,228	67%	39	59%	26	39%	1	2%	66
Pharma/Biotech ex CSL	5,412	68%	38	58%	26	40%	1	2%	65
Med Device	12,427	33%	20	54%	15	41%	2	5%	37
Med Device ex COH, RMD	2,593	32%	19	54%	14	40%	2	6%	35
Life Sciences	37,655	100%	59	57%	41	40%	3	3%	103
Life Sciences ex majors	8,005	100%	57	57%	40	40%	3	3%	100

Figure 4: Two-year comparison of the Australian life sciences indices' performance by market cap

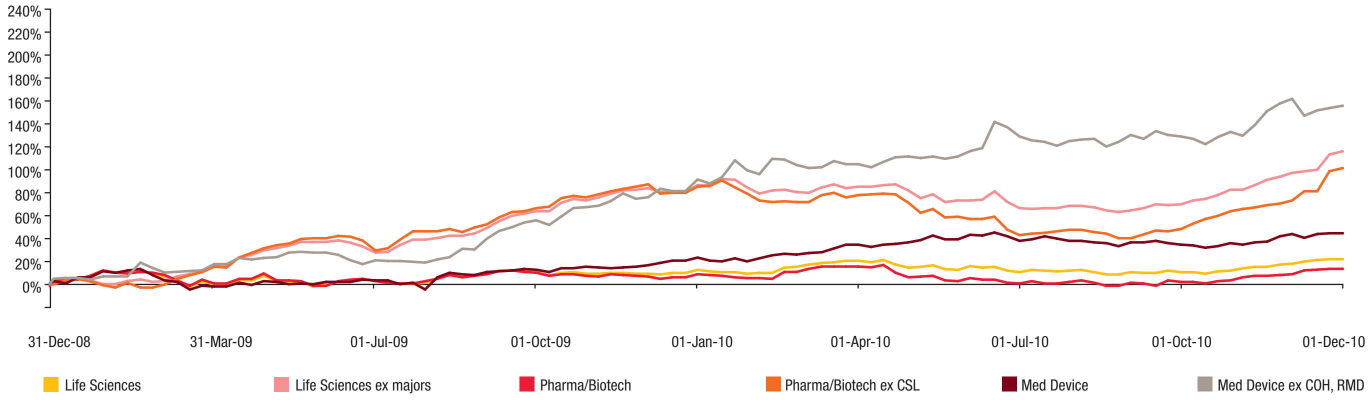
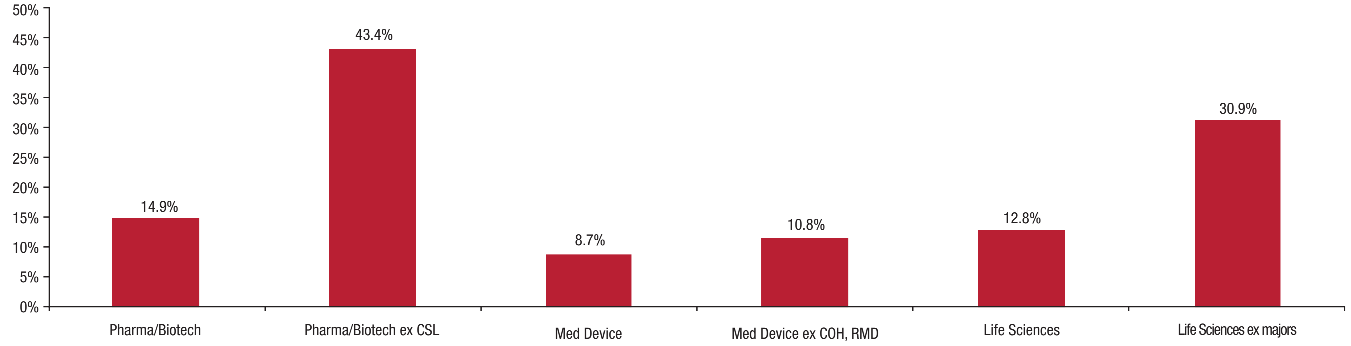


Table 4: Quarterly performance of the Australian life sciences indices

	Market capitalisation (A$m)		
	30-Sep-10	31-Dec-10	Change
Pharma/Biotech	21,950	25,228	14.9%
Pharma/Biotech ex CSL	3,773	5,412	43.4%
Med Device	11,431	12,427	8.7%
Med Device ex COH, RMD	2,341	2,593	10.8%
Life Sciences	33,381	37,655	12.8%
Life Sciences ex majors	6,114	8,005	30.9%

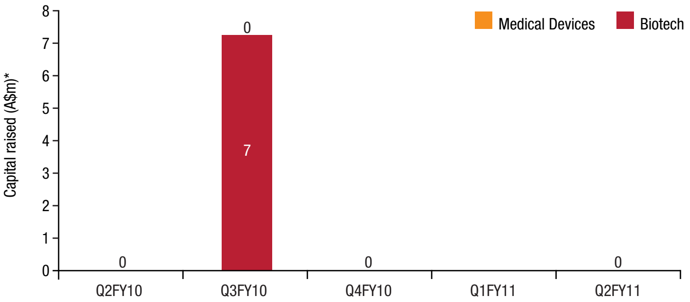
Graph 3: Quarterly performance of the Australian life sciences sector and subsectors by market cap



IPO financing

Quarterly financing

Figure 5: Quarterly comparison of IPOs in Australia



** Amount shown is total market cap addition to the Life Sciences Index from IPOs on first day of trading*

Table 5: Number of quarterly Australian IPO listings

	Biotech	Med Devices	ASX
Q2FY11	0	0	50
Q1FY11	0	0	19
Q4FY10	0	0	16
Q3FY10	1	0	7
Q2FY10	0	0	27

Figure 6: Quarterly comparison of IPOs in the US

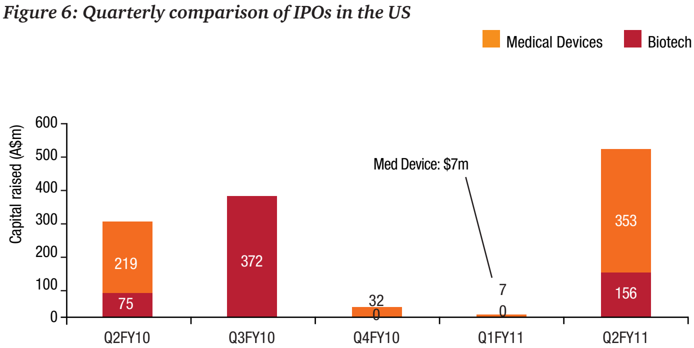


Table 6: Number of quarterly US IPO listings

	Biotech	Med Devices
Q2FY11	3	4
Q1FY11	0	1
Q4FY10	0	1
Q3FY10	4	0
Q2FY10	1	1

Table 7: Total of quarterly US IPO listings

Company	Listing date	Capital raised (A$m)
Pacific Biosciences of CA	26/10/10	196.36
Complete Genomics	10/11/10	51.68
Anacor Pharmaceuticals	23/11/10	57.42
Ventrus Biosciences	16/12/10	17.60
Aegerion Pharmaceuticals	22/10/10	46.64
Zogenix	22/11/10	53.59
Reva Medical	21/12/10	85.77
Total		509.06

Yearly financing

Figure 7: Annual comparison of IPOs in Australia

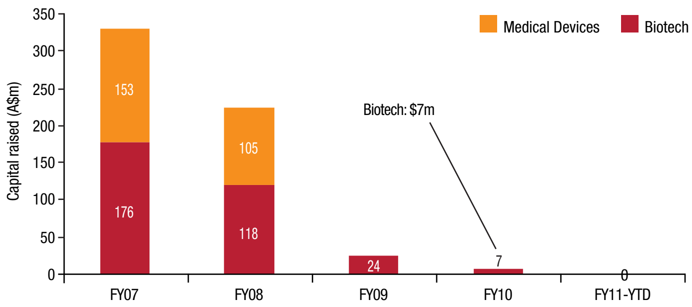


Table 8: Number of IPO listings (AU)

	Biotech	Med Devices	ASX
FY11 – YTD	0	0	69
FY10	1	0	53
FY09	1	0	24
FY08	4	3	79
FY07	6	7	245

Figure 8: Annual comparison of IPOs in the US

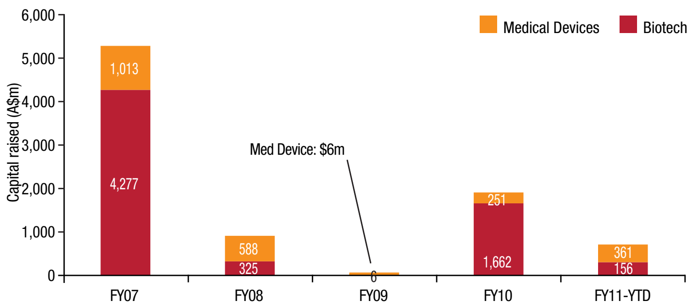


Table 9: Number of IPO listings (US)

	Biotech	Med Devices
FY11 – YTD	3	4
FY10	7	2
FY09	0	1
FY08	8	8
FY07	42	12

Secondary finance market

Quarterly financing

Figure 9: Quarterly comparison of secondary financing in Australia

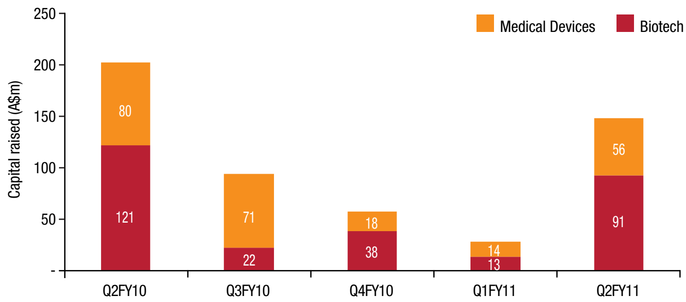


Table 10: Number of Australian secondary raisings (quarterly)

	Biotech	Avg. amount raised ($m)	Med Devices	Avg. amount raised ($m)
Q2FY11	41	2.2	13	4.3
Q1FY11	31	0.4	11	1.3
Q4FY10	26	1.5	6	3.0
Q3FY10	18	1.2	4	17.9
Q2FY10	33	3.7	18	4.4

Figure 10: Quarterly comparison of secondary financing in the US

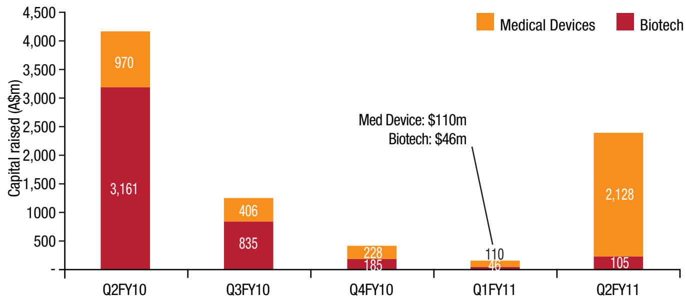


Table 11: Number of US secondary raisings (quarterly)

	Biotech	Med Devices
Q2FY11	17	51
Q1FY11	2	9
Q4FY10	6	11
Q3FY10	47	13
Q2FY10	29	16

Yearly financing

Figure 11: Annual comparison of secondary financing in Australia

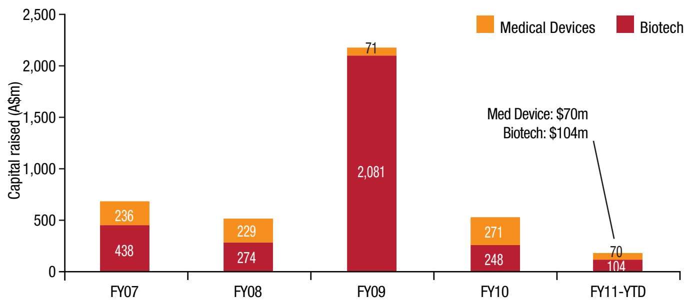


Table 12: Number of Australian secondary raisings (annual)

	Biotech	Med Devices
FY11 – YTD	72	24
FY10	107	39
FY09	87	41
FY08	99	66
FY07	98	75

Figure 12: Annual comparison of secondary financing in the US

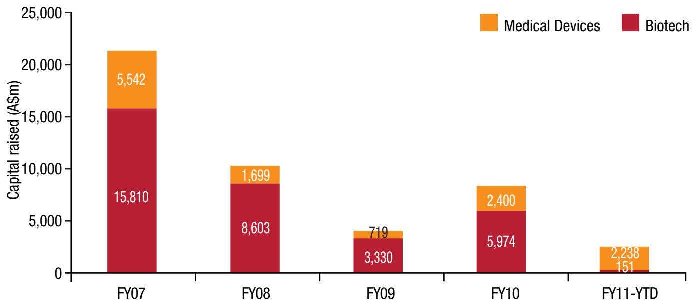
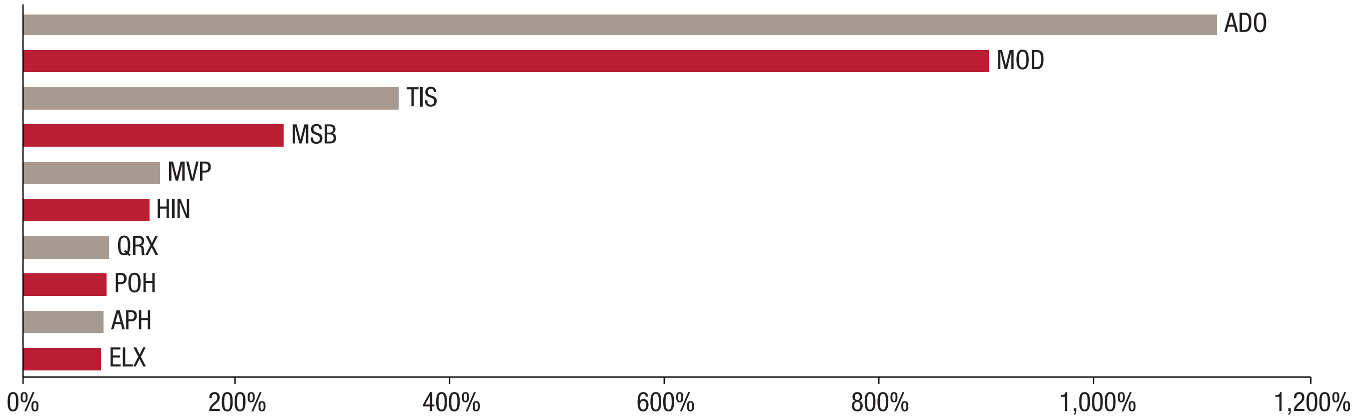


Table 13: Number of US secondary raisings (annual)

	Biotech	Med Devices
FY11 – YTD	19	60
FY10	122	57
FY09	48	24
FY08	80	29
FY07	258	59

Top 10

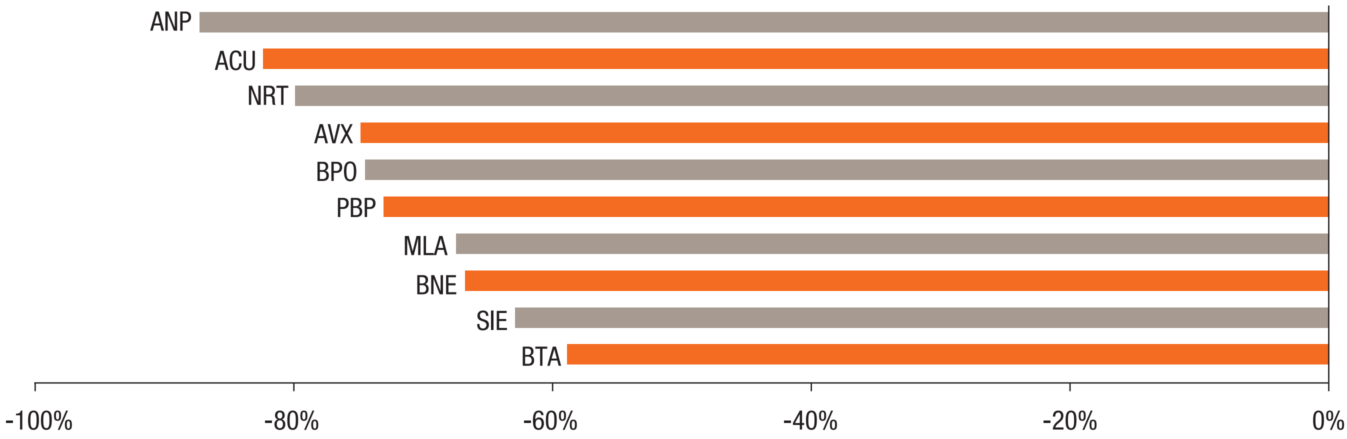
Performers over past four quarters



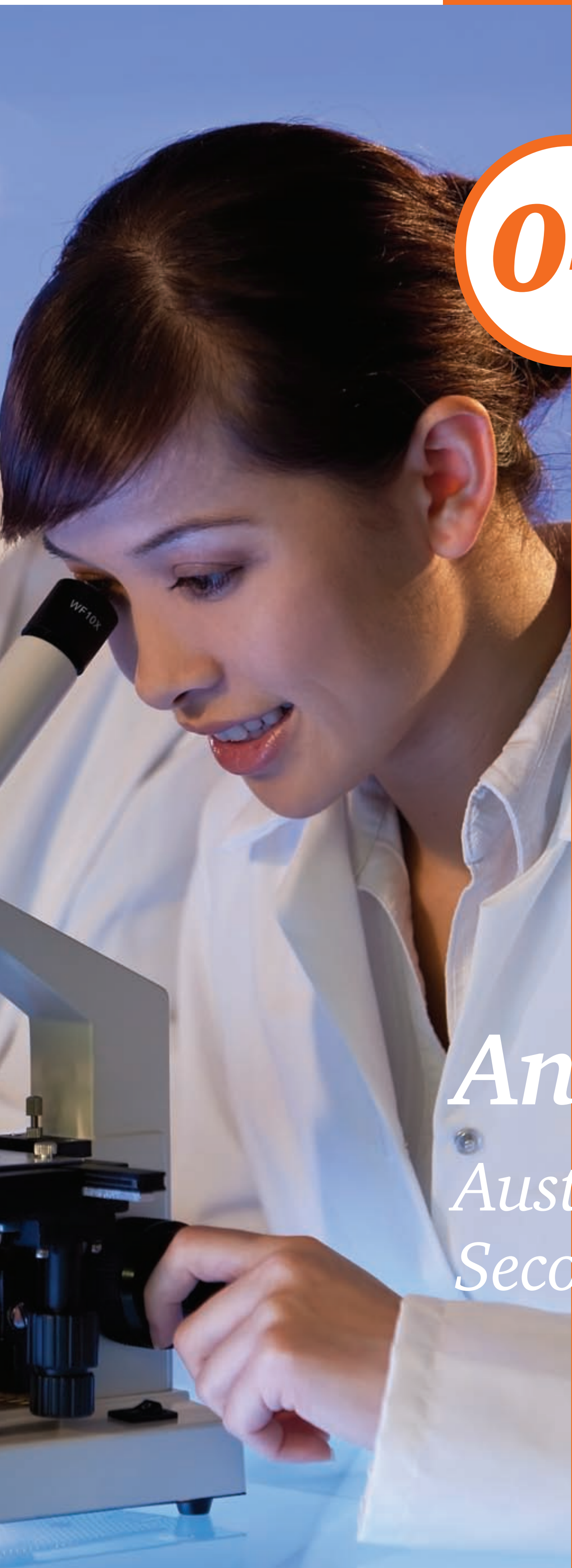
01 ANTEO DIAGNOSTICS LIMITED (ADO)	Return: 1,114% Closing price: $0.09 MCap: A$56.85m	Anteo Diagnostics held an annual general meeting where its latest results and progress with product development were discussed.
02 MEDICAL CORPORATION AUSTRALASIA LIMITED (MOD)	Return: 900% Closing price: $0.20 MCap: A$49.82m	Medical Corporation made a conditional purchase of Amphion International in addition to a share placement of up to $2.8m as part of a proposed move into the resource sector.
03 TISSUE THERAPIES LIMITED (TIS)	Return: 350% Closing price: $0.72 MCap: A$99.58m	The company announced that the third core patent in the VitroGro IP family has been granted in the United States and the Deed of Letters Patent received from the US Patent and Trademark Office.
04 MESOBLAST LIMITED (MSB)	Return: 243% Closing price: $4.67 MCap: A$1,179.85m	The shareholders of Angioblast approved its acquisition by Mesoblast. This will increase Mesoblast's ownership to 100% while also broadening its product pipeline across a wide range of clinical indication areas.
05 MEDICAL DEVELOPMENTS INTERNATIONAL LIMITED (MVP)	Return: 129% Closing price: $0.40 MCap: A$22.79m	The company announced approval at the AGM for the buyback of ordinary shares on a one-for-one basis.
06 HEARTWARE INTERNATIONAL, INC (HIN)	Return: 117% Closing price: $2.43 MCap: A$1,152.82m	HeartWare announced third quarter 2010 revenue of $13.8m compared to $7.5m in the same quarter in 2009. The company has filed a Pre-Market Approval application with the US FDA for the HeartWare Ventricular Assist System as a bridge to heart transplantation for patients with end-stage heart failure.
07 QRXPHARMA LIMITED (QRX)	Return: 79% Closing price: $1.40 MCap: A$176.08m	The company announced the successful completion of its share purchase plan (SPP) to existing shareholders, raising A$5.8m. The SPP follows the company's recent placement to institutional investors raising A$14m (announced on 1 October 2010), bringing the total proceeds to A$19.8m.
08 PHOSPHAGENICS LIMITED (POH)	Return: 76% Closing price: $0.12 MCap: A$88.76m	Phosphagenics announced that it has signed a consultancy agreement, being the first stage of the commercial development of its oxycodone patch, with multi-billion dollar global corporation 3M in a move to advance the development of its oxycodone pain patch.
09 ASCENT PHARMAHEALTH LTD (APH)	Return: 76% Closing price: $0.37 MCap: A$92.29m	Ascent Pharmahealth and Strides Arcolab have entered into an agreement under which Linkace Investments, a subsidiary of Strides, will acquire the outstanding minority shares in Ascent via a scheme of arrangement. This proposed acquisition is subject to a number of conditions.
10 ELLEX MEDICAL LASERS LIMITED (ELX)	Return: 72% Closing price: $0.31 MCap: A$25.90m	Ellex Medical Lasers has entered into an exclusive distribution agreement with Italian-based CenterVue to market and distribute the MAIA fundus perimetry system in the US and Australia.

Bottom 10

Performers over past four quarters



01	ANTISENSE THERAPEUTICS LIMITED (ANP)	Return: -87% Closing price: $0.01 MCap: A$6.22m	The company announced a renounceable rights issue to raise approximately $2.4m. The issue offers one new share for every two shares held as at 10 November, at a price of 0.8 cents per share, with a theoretical ex-rights price of 1.2 cents per share. One free attaching option (with an exercise price of 1.1 cents and expiring on 31 July 2012) will be issued with every five new shares issued.
02	ACUVAX LIMITED (ACU)	Return: -82% Closing price: $0.0 MCap: A$5.72m	The company announced that a further 36m shares totalling $720,000 have been placed to RM Corporate Finance under the shortfall facility from the recently completed rights issue.
03	NOVOGEN LIMITED (NRT)	Return: -80% Closing price: $0.12 MCap: A$12.26m	Novogen subsidiary Marshall Edwards announced that it has received a non-compliance notice from NASDAQ in relation to the minimum $10m stockholder equity requirement for continued listing.
04	AVEXA LIMITED (AVX)	Return: -75% Closing price: $0.04 MCap: A$33.06m	The company announced that Calzada has sold its 17% shareholding in Avexa.
05	BIOPROSPECT LIMITED (BPO)	Return: -74% Closing price: $0.01 MCap: A$9.68m	The Federal Court of Australia dismissed an interim injunction application brought by BioProspect Limited against Solagran Limited. At the same time, the court discharged a previous temporary order made on 7 September 2010 that restrained Solagran from selling part of its shareholding in BioProspect.
06	PROBIOTEC LIMITED (PBP)	Return: -73% Closing price: $0.67 MCap: A$36.89m	The company issued 150,229 fully paid ordinary shares under the Probiotec Ltd DPR for the final dividend for the year ended 30 June 2010 for the purpose of dividend reinvestment.
07	MEDICAL AUSTRALIA LIMITED (MLA)	Return: -68% Closing price: $0.01 MCap: A$4.98m	MLA's board decided that raising additional capital would be too dilutive for shareholders and that it would not to pursue the Care Essentials transaction.
08	BONE MEDICAL LIMITED (BNE)	Return: -67% Closing price: $0.05 MCap: A$4.14m	The company announced that it has executed a convertible note funding agreement with La Jolla Cove Investors Inc for US$6m at an interest rate of 4.75 % per annum payable monthly in cash or fully paid ordinary shares with maturity of 3 years.
09	SCIGEN LIMITED (SIE)	Return: -63% Closing price: $0.13 MCap: A$71.80m	Sciegen released a quarterly report announcing net operating cash flows deficient of $1.2m. This was offset by positive cash flow from asset sales and loans from the holding company to produce an increase of cash held of $982m.
10	BIOTA HOLDINGS LIMITED (BTA)	Return: -59% Closing price: $0.99 MCap: A$179m	The company announced the issue of 114,188 ordinary shares at nil consideration in relation to its employee option plan and as part of the remuneration packages of staff.



04

Announcements

Australia
Second quarter FY11

Partnerships

Company	Pharma/biotech partner	Application	Value (A$m)	Comments
Biotechnology			**Total**	**17**
Ascent Pharmahealth (APH)	Strides Arcolab	Acquisition	$0.40 in cash per share	Ascent Pharmahealth and Strides Arcolab agreed Linkace Investments, a subsidiary of Strides, will acquire the outstanding minority shares in Ascent via a scheme of arrangement. This proposed acquisition is subject to a number of conditions.
Avexa (AVX)	Valevia Pharmaceuticals	To fund Avexa's pre-clinical antibacterial drug program	US$65m plus royalties	Avexa announced that it has entered into a licence agreement with Valevia Pharmaceuticals whereby Valevia will fund all future development of Avexa's pre-clinical antibacterial drug program while Avexa will retain control of managing the intellectual property.
BioProspect (BPO)	Solagran	Partnership termination	N/A	The parties have agreed to terminate their development agreement and pursue their business strategies separately.
Calzada (CZD)	Phosphagenics	To commercialise Calzada's AOD9604 using TPM technology	N/A	Calzada announced that it has signed a licensing deal with Phosphagenics Ltd to launch a cosmeceutical product containing Calzada's anti-obesity peptide, known as AOD9604, in combination with Phosphagenics' TPM technology.
Circadian Technologies (CIR)	Cincinnati Children's Hospital Medical Centre	To develop and market a blood test for the lung disease lymphangioleiomyomatosis (LAM) using vascular endothelial growth factor D (VEGF – D)	N/A	Circadian Technologies and Cincinnati Children's Hospital Medical entered into a partnership as there is a market for specific VEGF- D diagnostics, particularly for those enabling physicians to potentially tailor and better monitor patients undergoing certain types of cancer therapy.
Genetic Technologies (GTG)	Laboratories Reunis Luxembourg	Granting of licence to Laboratories Reunis Luxembourg	N/A	Genetic Technologies grants licence to Laboratoires Réunis. Genetic Technologies further reports that it is now engaged in settlement discussions with a number of other parties in Europe and in USA, each relating to their use of GTG's non-coding DNA technology.
Genetic Technologies (GTG)	Qiagen	Granting licence to Qiagen	N/A	Genetic Technologies granted Qiagen non-exclusive rights to a number of GTG patents, including non-coding analysis, gene mapping and internal standards.
HealthLinx (HTX)	Seoul Clinical Laboratories	Commercial distribution deal	Not disclosed	HealthLinx and Seoul Clinical Laboratories have signed a deal for the distribution of OvPlex in South Korea pending approval from the South Korea Food and Drug Administration.
Holista CollTech (HCT)	Universiti Sains Malaysia (USM)	Research and sale agreements	N/A	Holista CollTech Limited, with operations in Malaysia and Australia, signed two landmark agreements to conduct advanced research and commence sales of the world's first halal food-grade sheep collagen.
Imugene (IMU)	Novartis Animal Health	Global agreement to commercialise vaccines for pigs and poultry	Not disclosed	Global agreement giving Novartis Animal Health exclusive rights to all of Imugene's technologies and intellectual properties, including its vaccines and productivity enhancers.
Living Cell Technology (LCT)	SpringTree Special Opportunities Fund, LP (SpringTree)	Commercialisation agreement	$5.75m	Agreement to fund further development and commercialisation of LCT's lead product Diabecell and general operations.
Mesoblast (MSB)	Cephalon	Strategic alliance for commercialisation	US$130m upfront and up to US$1.7b in milestone payments	Strategic alliance to commercialise novel therapeutic products for degenerative neurologic and cardiovascular conditions. Cephalon will acquire a stake in Mesoblast at a 45% premium.
Phosphagenics (POH)	3M	Development of pain patch	Not disclosed	Signed an agreement with 3M for commercial development of its oxycodone pain patch.
Phylogica (PYC)	Roche	To identify novel cell-penetrating peptides	N/A	Phylogica announced that the first stage of its partnership with Roche has been completed and the next will depend on Roche's review of its data.
Phylogica (PYC)	MedImmune	Licensing agreement	US$1.5m	Agreement with MedImmune to evaluate Phylogica's proprietary Phylomer peptide library for novel antimicrobial peptides.

Company	Pharma/biotech partner	Application	Value (A$m)	Comments
Phylogica (PYC)	Pfizer	Licensing deal	Not disclosed	Phylogica entered agreement with Pfizer to discover novel peptide-based vaccines using its proprietary Phylomer drug discovery platform.
Virax Holdings (VHL)	Leading international biopharmaceutical company	Licensing agreement for skin cancer treatment	Not disclosed	Virax Holdings has signed a deal with an international biopharma company to develop a novel, proprietary skin cancer treatment.
Medical Devices			**Total**	**17**
Advanced Surgical Design and Manufacture (AMT)	Arthrosurface	Distribution agreement	Not disclosed	The company announced that it has entered into a new distribution agreement with specialist US orthopaedic company Arthrosurface.
Advanced Surgical Design and Manufacture (AMT)	Permedica	Distribution agreement	Not disclosed	The new distribution agreement with Permedica is to deliver a full range of implantable orthopaedics devices. The new product will leverage ASDM's well established sales and marketing resources in Australia.
Advanced Surgical Design and Manufacture (AMT)	Parcus Medical	Exclusive Australian distribution agreement	Not disclosed	The new distribution agreement with Parcus Medical will help in increasing sales and profitability. As Parcus Medical provides sports injury solutions, it fits AMT's business strategy and will add to its product range.
AtCor Medical (ACG)	Existing AtCor customer (name not disclosed)	To supply SphygmoCor systems and clinical trial support services	US$0.8m	The company announced that it has signed a new contract with a major pharmaceutical company.
AtCor Medical (ACG)	Not disclosed	Supply agreement	US$1.1m	Agreement to supply SphygmoCor systems and clinical trial support services to a global pharmaceutical company.
AtCor Medical (ACG)	Not disclosed	Supply agreement	US$1.28m	Agreement to supply SphygmoCor systems and clinical trial support services to a global pharmaceutical company.
Compumedics (CMP)	Beike Digital Medical Technology (Beike)	Purchase contract	Approx $1.25m	Agreement with Beike for the purchase of DWL products in 2011. This milestone underpins the Compumedics Group's growing presence in China.
Ellex Medical Lasers (ELX)	CenterVue	Exclusive distribution agreement	N/A	Exclusive distribution agreement with Italian-based CenterVue to market and distribute the MAIA fundus perimetry system in the US and Australia.
Ellex Medical Lasers (ELX)	CenterVue	Distribution deal	Not disclosed	Distribution deal with CenterVue to market the DRS retinal camera in the US.
Fluorotechnics (FLS)	Serva Electrophoresis	Appointment of sales marketing partner	$150k	Appointed Serva Electrophoresis GmbH as its global sales and marketing partner for its electrophoresis gels and hardware product lines.
KarmelSonix (KSX)	Belateam in France, Maribo Medica in Denmark, Somnivest in Sweden and Spira OY in Finland	Distribution agreement	Not disclosed	Various agreements with distributors in France, Sweden, Finland, Denmark and Norway.
Medical Australia Limited (MLA)	Terumo Medical Corporation	Manufacturing deal	Not disclosed	Three-year agreement with Terumo Medical Corporation of Japan to manufacture a broad range of Terumo's products.
MediVac (MDV)	Dutchess Capital	Funding facility	A$20m	US-based Dutchess Capital will fund working capital of up to A$20m over three years.
OBJ (OBJ)	GlaxoSmithKline	Product development program	N/A	GlaxoSmithKline agreed to proceed with an FIM development program in a major consumer healthcare sector.
Optiscan (OIL)	Carl Zeiss	Expansion activities	Not disclosed	Agreement to build on successful neurosurgery trials at The Barrow Neurological Institute in Phoenix, US.
SomnoMed (SOM)	SleepQuest	Clinical support	N/A	Strategic agreement with SleepQuest to provide clinical support for dentists and patients across the US. SleepQuest will also distribute SomnoMed's products.
SomnoMed (SOM)	Zephyr Sleep Technologies	Distribution agreement	Not disclosed	Exclusive global distribution agreement.

Mergers, acquisitions and divestments

Dominant company	Target company	Type of deal	Value (A$m)	Comments
Biotechnology			**Total**	**11**
Avexa (AVX)	Allied Medical	Strategic investment	$1.5m	Avexa agreed to acquire a 24% stake in Allied Medical.
Bionomics (BNO)	Major shareholder, Start-up Australia Ventures	Divestment update	Not disclosed	Start-up Australia Ventures has lodged an invitation to tender for its 27.76% shareholding in Bionomics.
Cellmid (CDY)	Advangen International	Launch of a new subsidiary	N/A	Wholly owned subsidiary Advangen International will develop and sell lifestyle products, initially for treatment of hair loss.
Calzada (CZD)	Avexa	Divestment	$4.0m	The company announced the sale of its 17% share holding in Avexa Limited.
Mesoblast (MSB)	Angioblast Systems	Acquisition	90.8m ordinary shares	The company has completed the acquisition of Angioblast Systems.
Novogen (NRT)	Marshall Edwards	Assets sale agreement	US$4m	Marshall Edwards will acquire Novogen's isoflavone-based intellectual property portfolio.
NuSep (NSP)	SingaPharm	Investment	US$4m	NuSep announced that it has acquired a 38% stake in Singapore-based blood fractionation business SingaPharm.
Progen Pharmaceuticals (PGL)	The company's US office and assets	Divestment	Not disclosed	The company will close its California office and is actively planning to divest the assets acquired in the Cellgate transaction in Feb 2008.
Reckitt Benckiser	SSL International	Acquisition	$2.5b	Reckitt Benckiser acquired Starpharma Holdings partner SSL.
Stirling Products (STI)	Halcion	Acquisition withdrawn	NA	Stirling Products will not proceed with the acquisition of Halcion following proposed changes of structure by the vendors.
Xceed (XCD)	Focus Coal Investments	Acquisition and divestment	Acquisition: $15m Divestment: $1.5m	Agreed to acquire 100% of the issued capital of Focus Coal Investments and to sell its wholly owned subsidiary Boron Molecular.
Medical Devices			**Total**	**5**
ATOS Wellness (ATW)	N/A	Divestment	N/A	The company sold 51% of its interest in Body Contours and plans to divest its 100% interest in Singapore assets ATOS Wellness, Inner Harmony and their related entities.
Fluorotechnics (FLS)	Gel Company	Divestment	US$150k	The company confirmed the sale of its US subsidiary Gel Company.
Medic Vision (MVH)	mConnect Group	Acquisition	$3m cash, 100m shares and 10m options	MVH entered into a binding agreement to acquire mConnect group.
Medic Vision (MVH	2moro mobile	Acquisition	$2.5m	MVH entered into a binding agreement to acquire all the shares in 2moro mobile pty ltd.
Medical Corporation Australasia (MOD)	Amphion International	Acquisition	Not disclosed	MOD signed a binding agreement to buy 100% of Amphion's shares.

Clinical trials

Company	Drug/product	Application	Comments
Pre-clinical		**Total**	**3**
Living Cell Technologies (LCT)	NTCell	Parkinson's disease	The company announced positive trial results showing that NTCell improved motor activity in animal models and restored brain cell numbers in affected areas.
Mesoblast (MSB)	Proprietary allogeneic stem cells	Heart failure	Positive pre-clinical trial results showed the company's proprietary allogeneic stem cells can be injected simply, safely, and effectively into the coronary arteries after a heart attack to prevent heart failure.
Novogen (NRT)	NV-128	Ovarian cancer	New data showed for the first time that targeting the mitochondrial induces caspase-independent cell death in otherwise chemotherapy-resistant ovarian cancer cells.
Phase I		**Total**	**5**
Bionomics (BNO)	BNC210	Anxiety and depression	The company has obtained European regulatory approval for two phase Ib clinical trials of its BNC210 compound.
Eastland Medical Systems (EMS)	ArTiMist	Malaria	The company has begun dosing the first of its 150 paediatric patients in Rwanda with ArTiMist.
Neuren Pharmaceuticals (NEU)	NNZ-2566	Traumatic brain injury (TBI)	The company announced that an additional phase I safety study for NNZ-2566 indicated it appears to be safe and well-tolerated. It has begun developing an oral form of NNZ-2566.
Patrys (PAB)	PAT-SM6	Cancers including melanoma	The company completed treatment of the first group of patients in a melanoma clinical trial of PAT-SM6 and received approval to progress its trial based on safety data.
Viralytics (VLA)	Cavatak	Cancer	The independent Data Safety Monitoring Committee approved a higher level of dosing of Cavatak in a new trial.
Phase II		**Total**	**7**
Biotron (BIT)	BIT225	Hepatitis C virus	The company has commenced a phase IIa clinical trial of BIT225 designed to assess its safety and efficacy.
Halcygen Pharmaceuticals (MYX formerly known as HGN)	Subacap	Onychomycosis	A US-based phase II clinical study of 175 patients with localised fungal infection of the toenail (onychomycosis) met all primary and secondary endpoints.
Immuron (IMC)	IMM 124E	NASH and aspects of metabolic syndrome	Reported successful results in a phase I/II clinical trial of its hyperimmune bovine colostrums product IMM 124E for the treatment of NASH and aspects of metabolic syndrome.
Living Cell Technologies (LCT)	Diabecell	Diabetes	Regulators approved the addition of two patients to the New Zealand phase II clinical trial in addition to the 12 patients already approved to receive Diabecell implants. The company also announced continuing positive results from the New Zealand phase II clinical trial in insulin-dependent diabetes patients.
Mesoblast (MSB)	NeoFuse	Spinal fusion surgery	Announced positive results from a phase 2 lumber fusion trial.
Pharmaxis (PXS)	ASM8	Allergic asthma	Pharmaxis has enrolled the first subjects into a phase II clinical trial of the drug in patients with allergic asthma.
Viralytics (VLA)	Cavatak	Late stage melanoma	Viralytics lodged an initial Investigational New Drug Application (IND) for a planned phase II trial.
Phase III		**Total**	**1**
Pharmaxis (PXS)	Bronchitol (inhaled mannitol)	Cystic fibrosis	The company announced positive combined phase 3 Cystics fibrosis trial results.

Other

Company	Drug/product	Application	Comments
Other		**Total**	**14**
Actinogen (ACW)	Biodegradable nappy	Infant hygiene	The company is planning to develop a new biodegradable nappy and a range of other products.
Advanced Surgical Design and Manufacture (AMT)	PAD	Reperfusion of limbs and treatment of chronic peripheral artery disease	The company announced positive interim results for the first five patients enrolled in its PAD clinical trial.
Benitec (BLT)	RNAi product	Chronic intractable pain associated with diseases such as cancer and HIV	Benitec has commenced an R&D program to develop an expressed RNAi product.
Bionomics (BNO)	BNC210	Acute anxiety including panic attacks	The company released data demonstrating that BNC210 is highly effective in pre-clinical models of drug-induced anxiety.
Compumedics (CMP)	Somté PSG portable sleep-testing systems	Sleep disorders and cardio-vascular disease	Compumedics's home sleep testing system has been selected for use in a US Institute of Health sponsored sleep study.
Ellex Medical Lasers (ELX)	Ellex 2RT	Degenerative retinal diseases	The company previewed a prototype of its new Retinal Regeneration Therapy (Ellex 2RT) laser at an ophthalmology conference in Adelaide.
HealthLinx (HTX)	AGR2 and HTX010 biomaker	Diagnosing ovarian cancer	The company announced that a second study for OvPlex has returned excellent initial data for the two new biomarkers AGR2 and HTX010.
HeartWare International (HIN)	Ventricular Assist System	Advanced heart failure	The company announced that it has achieved a primary endpoint with 92% success in a bridge-to-transplant clinical trial and a secondary endpoint of survival was 94% at six months with 91% projected survival at one-year.
KarmelSonix (KSX)	WheezoMeter	Pulmonology and sleep disorder	The company reinforced the clinical value proposition of its novel products involving over 390 patients.
Mesoblast (MSB)	Adult stem cell product	Cancer	The company announced that it targets broader cancer indications for bone marrow transplant products.
Progen Pharmaceuticals (PGL)	PG545	Cancer	The company has all formal approvals required for the first in-human trial of PG545.
QRxPharma (QRX)	MoxDuo IR	Knee replacement surgery	QRxPharma completed patient enrolment for a phase 3 study.
Solagran (SLA)	Ropren	Liver alcohol cirrhosis	The company announced preliminary results of its Ropren trials indicating statistically significant changes in all main liver parameters including the cirrhosis index.
Universal Biosensors (UBI)	PT/INR strip and meter system	Measuring blood clotting tendency	The company announced positive results in a clinical study assessing the performance of its next major point of care technology, the PT/INR strip and meter system.

Regulatory

Company	Product/News	Application	Comments
Biotechnology		**Total**	**24**
Acrux (ACR)	Axiron	Testosterone deficiency	Eli Lilly and Acrux announced that the US FDA has approved Axiron (testosterone) topical solution CIII for conditions associated with a deficiency of testosterone. Acrux received a US$87m milestone payment from Eli Lilly.
Antisense Therapeutics (ANP)	ATL1103	Blocking growth hormorne receptors	The company obtained a US patent for ATL1103 and a corresponding Australian patent is expected to be granted.
Avexa (AVX)	Apricitabine	HIV	The company secured a meeting with the US FDA to discuss data from the phase II/III trial of its anti-HIV drug Apricitabine.
Benitec (BLT)	Patent	N/A	The company has been notified of an application to revoke its UK Patent no. 2,353,282 and that the US Patent Office will review Patent 6,573,099 covering the use of expressed RNAi in human therapeutic applications.
Benitec (BLT)	Hep C compounds	Hepatitis C	The company has been granted another RNA Interference Patent in Europe. Benitec has licensed the rights to use this patent for Hepatitis C exclusively to Tacere Therapeutics which is working with Pfizer to further develop and commercialise Tacere's Hepatitis C compounds.
BioDiem (BDM)	BDM-I	Anti-infective compound	US and China patents were granted for BioDiem's BDM-I.
ChemGenex Pharmaceuticals (CXS)	Omarpro	Chronic myeloid leukaemia	The company announced that it has completed the pre-NDA meeting with the US FDA concerning Omapro for the treatment chronic myeloid leukaemia and no further clinical trials are required.
Circadian Technologies (CIR)	VEGF inhibitor technology	Cancer	Circadian to be granted significant US and European patents covering VEGF inhibitor technology for the treatment of cancer.
Clinuvel Pharmaceuticals (CUV)	Scenesse	Skin ageing	TGA grants orphan drug designation for Scenesse.
HalcyGen Pharmaceuticals	EU registration	N/A	Mayna Pharma Group submitted a marketing authorisation application (MAA) in Europe for Subacap.
Novogen (NRT)	Marshall Edwards request NASDAQ hearing	N/A	Novogen subsidiary Marshall Edwards announced that it has received a non-compliance notice from NASDAQ in relation to the minimum $10m stockholder's equity requirement for continued listing.
NuSep (NSP)	NUView gels	Biological separations	The company announced that it has lodged two provisional gel patents.
NuSep (NSP)	Law suit	N/A	The company announced that it has lodged a complaint against Expedeon for patent infringement.
Patrys (PAB)	Grant of orphan drug status	Cancer	The company announced that it has received confirmation of orphan medicinal product designation for anti-cancer product PAT-SC1 from the US FDA.
Patrys (PAB)	Patent	N/A	The company filed a US provisional patent application to protect its manufacturing processes for natural human antibodies.
Pharmaxis (PXS)	Aridol	Asthma	The US FDA has approved the Aridol (mannitol inhalation powder) Bronchial Challenge Test Kit for marketing.
Pharmaxis (PXS)	Bronchitol	Cystic fibrosis	The Australian Advisory Committee on Prescription Medicines (ACPM) recommended approval of Bronchitol (inhaled dry powder mannitol) for marketing in Australia for the treatment of cystic fibrosis.
Pharmaxis (PXS)	Bronchitol	Cystic fibrosis	The company announced a pre-NDA meeting with US FDA to discuss a new drug application (NDA) for Bronchitol.

Company	Product/News	Application	Comments
Pharmaxis (PXS)	Bronchitol	N/A	The review of the European marketing application will not conclude as previously advised during Q4 2010.
pSivida (PVA)	Iluvian	Vision	The FDA said the Iluvien NDA cannot be approved in its present form.
Solagran (SLA)	Bioeffective A	Various	Solagran's product registration file for Bioeffective A was submitted to the UAE's Ministry of Health and regulatory approval is expected in the first quarter of 2011.
Stirling Products (STI)	Natural health products	N/A	Canadian subsidiary Stirling Pharma has obtained a licence for the manufacturing, packaging and labelling of natural health products in North Sydney, Nova Scotia.
Tissue Therapies (TIS)	VitroGro family	N/A	A third core patent in the VitroGro IP family has been granted in the US and in Australia. The European Patent Office also intends to grant the core VitroGro patent to the company.
Viralytics (VLA)	Cavatak	Cancer	The company has been granted an Australian patent covering the generation of modified oncolytic viruses.
Medical Devices		**Total**	**2**
Cyclopharm (CYC)	Licence approval	N/A	Cyclopharm's subsidiary Cyclopet received a Good Manufacturing Process licence approval from the Australian Therapeutic Goods Administration for the cyclotron production and research facility. Also the first commercial doses of the radiopharmaceutical compound F18 Flurodeoxyglucose have been sold.
HeartWare International (HIN)	HeartWare Ventricular Assist System	Heart failure	The company has filed a pre-market approval application with the US FDA for the HeartWare Ventricular Assist System as a bridge to heart transplantation for patients with end stage heart failure.

Other news

Company	Product/news	Application	Comments
Biotechnology		**Total**	**85**
Acrux (ACR)	N/A	N/A	The company won Victorian export awards for innovation excellence and service.
Actonigen (ACW)	Rights issue	N/A	The company announced a pro-rata non-renounceable rights issue to raise an estimated $3.18m.
Acuvax (ACU)	Board changes	N/A	Patrick Elliott and Dr Yvonne Foong resigned as directors. Andrew Bursill resigned as joint company secretary. Keong Chan and Ian Murie were appointed as directors, and Lloyd Flint as a director and company secretary.
Acuvax (ACU)	Share issue	N/A	The company announced that a further 360m shares worth $720,000 have been placed to RM Corporate Finance under the shortfall facility from the recently completed rights issue.
Agenix (AGX)	Rights issue and share offer	N/A	The company announced a non-renounceable pro-rata offer to existing eligible shareholders on the basis of 1:13.66 shares at an issue price of $0.025 per share together with 1 free attaching option for every 5 new shares subscribed for. The offer is for a maximum of 48m fully paid ordinary shares which, if fully subscribed, will raise $1.2m.
Agenix (AGX)	New issue	N/A	The company issued 48m ordinary shares and 8m listed options in respect of non-renounceable rights and 48m ordinary shares in respect of share options.
Agenix (AGX)	Appointment	N/A	Dr Danyi Zhang has been appointed to Agenix's China scientific advisory board as product champion for Thromboview.
Agenix (AGX)	Rights issue	N/A	The company announced that it has received, in total, the acceptance and applications of 19,440,235 ordinary shares and 3,888,046 options with a total value of $478,773.
Agenix (AGX)	Conversion of convertible notes	N/A	The company announced that notes totalling $200,000 will be converted into 40m ordinary shares in the company at an issue price of $0.005 cents per share. Shareholder approval for the same was obtained at the 2008 AGM.
Antisense Therapeutics (ANP)	Rights issue	N/A	The company announced a renounceable rights issue to raise approximately $2.4m.
Avexa (AVX)	Board changes	N/A	Board member Steven Crowley resigned following his appointment as executive director at Janssen-Cilag. Chief financial officer and company secretary Stephen Kerr resigned. Allan Tan was appointed as a non-executive director.
Avita Medical (AVH)	ReCell spray-on Skin	Burns and wounds	The company launched its regenerative product ReCell Spray-On Skin in Britain and the Middle East and is marketing it in China.
Avita Medical (AVH)	Renewal of CEO contract	N/A	The company announced the renewal of Dr William Dolphin's contract as CEO and managing director.
Benitec (BLT)	Review of pending US patent application	N/A	The company has reviewed its pending US divisional patent application and has determined a strategy for the continued prosecution of these applications.
Benitec (BLT)	Dividend from licensee	N/A	The company will receive a dividend of US$161,674 from licensee California-based Tacere Therapeutics.
BioDiem (BDM)	Merck – Schering-Plough merger update	N/A	Discussions with Merck about BioDiem's licence with Merck's subsidiary, Nobilon, are continuing.
BioDiem (BDM)	Nasovac vaccine	Swine flu	The company received a royalty payment of US$248,310 from the private market sales of the Nasovac vaccine for H1N1 (swine flu) in India.
Bionomics (BNO)	N/A	N/A	CEO and MD Dr Deborah Rathjen agreed to extend her employment contract for five years from 15 October 2010.
Bionomics (BNO)	Issue of securities	N/A	The company issued 100,000 ordinary shares at 24c each under the Bionomics employee share option plan.

Company	Product/news	Application	Comments
BioProspect (BPO)	Share and rights issue	N/A	The company announced that it has completed the first stage of a $2.28m capital raising program.
BioProspect (BPO)	Update on Solagran issue	N/A	BioProspect has withdrawn its court case against Solagran after mediation and Solagran has withdrawn its cross claim.
BioProspect (BPO)	Completion of rights issue	N/A	The company issued 330,556,782 ordinary shares and 637,113,564 options to fund development of Agripro.
Biota Holdings (BTA)	Royalties	N/A	GlaxoSmithKline said for the three months to 30 September Relenza sales were $29.6m and royalties $2.1m.
Bone Medical (BNE)	Convertible note facility	N/A	The company executed a convertible note funding agreement with La Jolla Cove Investors for US$6m at an interest rate of 4.75% p/a.
Calzada (CZD)	Board appointments	N/A	The company appointed Dr John Chiplin and Bruce Rathie as non-executive directors and Dr Stewart Washer as CEO.
Cbio (CBZ)	Securities issue	N/A	The company issued 6,645,335 ordinary shares and 775,000 options at nil consideration in relation to ordinary shares and share options being released from 12 month voluntary escrow.
Cbio (CBZ)	Repayment of SpringTree loan	N/A	The company has repaid in cash the $150,000 convertible note issued to SpringTree which was due on 15 October.
Cbio (CBZ)	Securities issue	N/A	Issue of A$150,000 convertible note at a consideration of $150,000 cash in relation to the convertible loan agreement.
Cbio (CBZ)	Rights issue shortfall	N/A	The company raised $5.08m from current shareholders under the rights issue which closed on 27 October. Under the offer, eligible shareholders were entitled to 5 new shares for every 7 shares held to raise a maximum of $9.3m.
Cbio (CBZ)	Rights issue allotment	N/A	The company announced that it has completed allotment of 31,740,566 fully paid shares issued as part of the rights issue.
Cbio (CBZ)	Issue of securities	N/A	The company issued a $150,000 convertible note pursuant to its $12m agreement with the SpringTree Special Opportunities fund.
Cbio (CBZ)	Board appointment	N/A	The company announced that Dr Terje Kalland has been appointed a non-executive director.
Cellestis (CST)	Director appointed	N/A	Shareholders approved re-election of director Ron Pitcher.
Cellmid (CDY)	Change of secretary	N/A	Andrew Bursill has resigned as company secretary and financial controller and Nicholas Falzon has been appointed in his place.
Cellmid (CDY)	Resignation of director	N/A	Tokyo based non-executive director Koichiro (Ko) Koike resigned.
ChemGenex Pharmaceuticals (CXS)	Convertible note issued	N/A	Cephalon has agreed to subscribe for up to A$15m of convertible notes.
ChemGenex Pharmaceuticals (CXS)	Receipt of US grant	N/A	US subsidiary ChemGenex Pharmaceuticals has been awarded a US$244,479 grant by the Internal Revenue Service.
Circadian Technologies (CIR)	Reappointment	N/A	Shareholders approved re-election of Carlo Montagner and Don Clarke as directors.
Clinuvel Pharmaceuticals (CUV)	Reappointment	N/A	The shareholders approved re-election of Brenda Shanahan as a director.
CSL (CSL)	Buyback of shares	N/A	The company has bought back a total of 5,410,740 shares between October and December 2010.

Company	Product/news	Application	Comments
Genetic Technologies (GTG)	Settlement of dispute	N/A	Genetic Technologies has settled disputes relating to its non-coding patents with Innogenetics NV and with Pioneer Hi-Bred International.
Giaconda(GIA)	New director	N/A	The shareholders approved the election of Professor Borody as a director.
HalcyGen Pharmaceuticals (MYX formerly known as HGN)	Appointments	N/A	Roger Corbett AO was elected as a non-executive director and Ronald Best re-elected as a director. Mark Cansdale was appointed CFO and company secretary in place of Aaron Finlay.
Halcygen Pharmaceuticals	Change in company name	N/A	Shareholders approved a change of name to Mayne Pharma Group.
HealthLinx (HTX)	Board appointment	N/A	The company announced the resignation of Stephen Copulos as a non-executive director and appointment of John Chiplin as a non-executive director.
Hexima (HXL)	Change in board	N/A	The company announced the retirement of Professor Adrienne Clarke AC as non-executive director and the resignation of Joshua Hofheimer as a director. Steven Skala was reappointed as a director and Ross Dobinson and Professor Marilyn Anderson as directors.
Holista CollTech (HCT)	Appointment	N/A	The company announced the appointment of Dr Stuart Hazell as a non-executive director.
Holista CollTech (HCT)	New development	N/A	The company announced that it has developed the world's first food-grade sheep collagen and plans to build an A$2.7m facility in Malaysia to produce halal collagen.
IDT Australia (IDT)	Appointments	N/A	Roman Najdecki has been appointed as company secretary and CFO. David Williams has been appointed as a non-executive director and Dr Graeme Blackman and Robert Burnet were reappointed as non-executive directors.
Imugene (IMU)	Licensee fees	N/A	IMU announced receipt of fees totalling US$1.5m pursuant to an exclusive agreement.
Immron (IMC)	Publication in peer reviewed journal	N/A	The results of a study demonstrate that IMM 255 could be a valuable addition to, or substitute for, antiviral drugs and vaccines to control influenza with the advantage of eliminating the need for daily administration.
Living Cell Technologies (LCT)	Board changes	N/A	Professor Robert Elliott, LCT's founder and medical director, has been appointed chairman until new board appointments are finalised and David McAuliffe has resigned as non-executive director.
Living Cell Technologies (LCT)	Product registration	N/A	LCT Biomedical has received registration for Diabecell as a marketable medical technology in Russia.
Medical Developments International (MVP)	Share buyback	N/A	The company announced that it has obtained approval for the buyback of 51,357,651 shares.
Mesoblast (MSB)	Grant	N/A	The company's US associate Angioblast Systems has been awarded $1.2m in grants under the Qualifying Therapeutic Discovery Project (QTDP) program.
Mesoblast (MSB)	Director resignation	N/A	Byron McAllister has resigned as company director of Mesoblast Ltd.
Novogen (NRT)	Board changes	N/A	The company announced the appointment of William D. Rueckert, a current non-executive director, as chairman, and Peter Scutt as a new director.
Novogen (NRT)	US grant	N/A	Subsidiary Glycotex was awarded a grant totalling US$244,479 under the US Qualifying Therapeutic Discovery Project (QTDP) program.
NuSep (NSP)	Grant	N/A	The company announced that it has been awarded a NSW Government grant of $30,000 to develop the SpermSep instrument.
NuSep (NSP)	Share placement	N/A	The company completed a $1.9m share placement with the issue of 8.9m shares.
Patrys (PAB)	Buyback	N/A	The company bought back 68,024 shares for $9,795.

Company	Product/news	Application	Comments
Patrys (PAB)	Capital raising	N/A	The company raised $3.2m via a private placement to fund clinical trials.
Patrys (PAB)	Share purchase plan	N/A	The company announced a share purchase plan allowing shareholders to purchase up to $15,000 in fully paid shares at $0.10 per share. The company raised a total of $4.3m by issuing 5,054,000 ordinary shares.
Patrys (PAB)	Receipt of grants	N/A	The company announced that collaborators have been awarded US$475,000 (A$675,000) in grant funding.
Pharmaxis (PXS)	CEO resumes office	N/A	Dr Alan Robertson resumed the role of CEO after a period of medical leave.
Phylogica (PYC)	Executive appointment	N/A	The company announced the appointment of Nick Woolf as CFO and vice-president of corporate development.
Prana Biotechnology (PBT)	Alzheimer's clinical trial	N/A	The government committed $15m to the Mental Health Research Institute (MHRI), Prana Biotechnology's partner in Alzheimer's research, to help further develop lead compound PBT2.
Prima BioMed (PRR)	Appointment of chairman	N/A	Lucy Turnbull was appointed as chairman replacing interim chairman Albert Wong, who will remain on the board as deputy chairman.
Probiomics (PCC)	Registration in New Zealand	N/A	The company has registered its proprietary probiotic strain, Lactobacillus fermentum, in New Zealand for application in companion animals.
Progen Pharmaceuticals (PGL)	Progen receives purchase order	N/A	Medigen Biotechnology Corporation has placed a purchase order for clinical trial materials for a phase III clinical trial in liver cancer patients. Progen's subsidiary PharmaSynth will commence the manufacturing runs required for the trial.
pSivida (PVA)	Receipt of US grant	N/A	The company won two grants totalling US$489,000 under the IRS Qualifying Therapeutic Discovery Project for research into ophthalmic diseases.
pSivida (PVA)	Appointment of vice-president	N/A	The company has filed Form 8-K with the SEC appointing Leonard S. Ross as its vice-president, finance.
QRxPharma (QRX)	Share placement	N/A	The company raised A$14m in an oversubscribed placement.
QRxPharma (QRX)	Share purchase plan	N/A	QRxPharma announced its new share purchase plan allowing subscribers up to $15,000 in QRxPharma ordinary shares, at A$0.85 per share. The company raised a total of A$5.8m through its SPP.
QRxPharma (QRX)	Government grants	N/A	The company won grants totalling US$489,000 for two MoxDuo pain management product candidates and a US$244,479 grant for its TorsinA program.
Select Vaccine (SLT)	Completion of rights issue	N/A	The company has raised a total of $790,708 through its 2:1 non-renounceable right issue by placing a total of 62.5m shares and 31.25m options.
Select Vaccine (SLT)	Placement update	N/A	The company has placed a total of 250m shares at $0.002 per share together with 125m free attaching options exercisable at $0.002 per option on or before 13 July 2013 to raise a total of $500,000 before costs.
Sirtex Medical (SRX)	Update on legal proceeding	N/A	Dr Gray (a party to the UWA proceedings) has filed an appeal against the order of Justice Barker in relation to UWA proceedings in which Sirtex Medical is a party.
Stirling Products (STI)	N/A	N/A	The company announced that it has appointed New York Crucible Capital to raise US$10m for an equity position in the TeleMedCare Group.
Stirling Products (STI)	Appointment	N/A	The company appointed Michael Kean as CFO.

Company	Product/news	Application	Comments
Stirling Products (STI)	Funding update	N/A	The company announced that it is in the process of securing $6m by way of placement to sophisticated investors and a rights issue to shareholders. Further, the current funding initiative for the company's vital sign monitoring has increased the funds to be raised by $5m.
Sun Biomedical (SBN)	Change in board	N/A	Peter King resigned as a non-executive director.
Telesso Technologise (TEO)	Capital raising	N/A	Vascular Pathways (VPI) completed a US$14m raising.
Telesso Technologies (TEO)	Board resignation	N/A	Dr Peter Farrell resigned from the board.
Viralytics (VLA)	Partial conversion of convertible note	N/A	La Jolla Cove Investors converted US$400,571 of a convertible note into 14,938,295 fully paid ordinary shares.
Medical Devices		**Total**	**51**
Anteo Diagnostics (ADO)	Resignation of director	N/A	Dr Robert Gilmour resigned from the board as non-executive director.
AquaCarotene (AQL)	Name change	N/A	Leaf Energy Limited, formerly AquaCarotene Limited, announced shareholders approved a change in the company name to Leaf Energy Limited.
AtCor Medical (ACG)	Capital raising and right issue	N/A	The company completed a share placement to institutional and sophisticated investors, raising $1.02m from 14.55m shares at 7c each.
AtCor Medical (ACG)	US grant	N/A	Atcor's US subsidiary has been awarded a US$135,637 grant under the Internal Revenue Service Code.
AtCor Medical (ACG)	Update on research sale	N/A	AtCor announced that it has received an order, valued at approximately US$250,000, for SphygmoCor systems to be used in a major US diabetes study.
AtCor Medical (ACG)	Non-renounceable rights issue	N/A	The company announced a fully underwritten rights issue of 19,156,944 shares under which its eligible shareholders will be offered 1 fully paid share for every 6 shares held.
Austofix Group (AYX)	Proposed issue of shares	N/A	The company said it proposes a $1.5m share issue. Further, the company announced that $0.79m cash has been received to date, $0.725m of which is a loan that converts to shares upon approval.
BioMD (BOD)	Milestone	N/A	The company announced that the first milestone has been met in its tissue heart valve feasibility study.
Corflife (CBB)	Cleansing notice	N/A	Pursuant to Cordlife's right issue, the company issued 18,825,458 ordinary shares resulting in a shortfall under its rights issue of 17,490,630 shares for which it will be issuing new shares.
Eastland Medical Systems (EMS)	Management and board restructure	N/A	The company announced a restructure to ensure it is equipped with the skills to commercialise its sublingual paediatric malaria treatment ArTiMist.
Eastland Medical Systems (EMS)	Legal update	N/A	Allegations against D. A. Sims and L. Sims in Supreme Court action CIV 3039 of 2009 have been settled, withdrawn and dismissed.
Fluorotechnics (FLS)	Suspension from quotation	N/A	ASX suspended quotation of FLS's security due to failure to lodge its full year accounts and/or annual report.
Fluorotechnics (FLS)	Capital raising	N/A	The company completed a placement for $210,000 of additional capital and raised $500,000 through the issue of convertible notes.
Genera Biosystems (GBI)	Board changes	N/A	Mel Bridges retired from the board, and Jim Kalokerinos and Lou Panaccio were appointed to it.
HeartWare International (HIN)	Public offering	N/A	The company completed a public offering of $143.75m in convertible senior notes due 2017 with an interest rate of 3.50% p.a.
ImpediMed (IPD)	Joint program with Magee for lymphoedema prevention	N/A	ImpediMed and Magee-Women's Hospital of UMPC announced a plan to use ImpediMed's L-Dex technology in lymphoedema screening.

Company	Product/news	Application	Comments
ImpediMed (IPD)	US patient registry	N/A	The company announced that Stanley Rockson, MD of Stanford University, filed a submission with the Centers for Medicare and Medicaid Services to gain national reimbursement support for an arm lymphoedema registry for US breast cancer patients.
ImpediMed (IPD)	Capital raising	N/A	ImpediMed raised A$10m through institutional placement and a share purchase plan (SPP). Wilson HTM and RBS Morgans agreed to underwrite the plan up to A$4.27m.
Innovating Technologies for Life (ITL)	Board appointment	N/A	Bill Mobbs was appointed executive chairman.
Innovating Technologies for Life (ITL)	Sale of unmarketable parcel of shares	N/A	The company is implementing a share sale facility for holders of parcels of ITL ordinary shares valued at less than $500.
KarmelSonix (KSX)	Board restructure	N/A	The company announced the appointment of four new board members and five board members will step down.
KarmelSonix (KSX)	Additional fund raising	N/A	The company secured additional funds of approximately $2m by issuing convertible notes and options to professional investors.
LBT Innovations (LBT)	Board resignation	N/A	Douglas Peter LeMessurier resigned as a director.
Medic Vision (MVH)	Marketing services deal	N/A	cBox, a subsidiary of MVH, secured a $1m p.a. deal to provide marketing services to a large US public company.
Medic Vision (MVH)	Non-renounceable right issue	N/A	MVH announced a pro-rata 1:3 share issue at 6.5c a share to raise $4.5m.
Medic Vision (MVH)	New board appointments	N/A	MVH appointed Veronica Duff as CFO and Matthew Gerard as non-executive director.
Medic Vision (MVH)	Change in company name	N/A	Shareholders approved a change in name to Motopia Limited.
Medical Australia (MLA)	Care Essentials transaction	N/A	The company has decided not to pursue the Care Essentials transaction.
Medigard (MGZ)	Share purchase plan	N/A	The company will offer up to A$15,000 worth of fully paid shares to shareholders.
MediVac (MDV)	Product launch	N/A	The company launched its MetaMizer and SunnyWipes to the international market at Medica 2010.
MediVac (MDV)	Share purchase plan	N/A	The company will offer up to A$15,000 worth of new fully paid shares to shareholders.
MediVac (MDV)	MOU with Ministry of Health of Sri Lanka	N/A	MediVac has signed an MOU through its Sri Lankan distributor, CME Medical, with the Sri Lanka Ministry of Health to establish clinical waste management systems in Sri Lankan hospitals.
NeuroDiscovery (NDL)	Board changes	N/A	Michael Robson was appointed chairman and Robert Hodby as joint company secretary after Morgan Barron's resignation.
NeuroDiscovery (NDL)	Share placement	N/A	NDL placed 10.75m shares at 4c each to raise $430,000.
Resmed (RMD)	Share buyback	N/A	The company bought back approximately 600,000 shares.
Resmed (RMD)	Update on substantial holder	N/A	The company announced that CBA became a substantial shareholder on 15/11/2010.
Safety Medical Products (SFP)	Board changes	N/A	Simon Lill, Stephen Hewitt-Dutton and Peter Christie were appointed directors and John Darley, John Riemelmoser and Joseph Nicholas have resigned. Vicky Allinson resigned as company secretary.
Safety Medical Products (SFP)	N/A	N/A	The company received an order under s.340(1) of the Corporations Act whereby the Australian regulator will relieve the company from certain obligations until 15 April 2011.
SomnoMed (SOM)	Expansion of management team	N/A	The company appointed two vice-presidents of its North American operation, Anthony White, VP marketing and academy and Jack Guthrie, VP sales dental and medical.

Company	Product/news	Application	Comments
Sunshine Heart (SHC)	EGM	N/A	The EGM resolved to increase the share capital of the company to 2b shares out of which 1.96b will be common stock and 0.04b will be preferred stock.
Sunshine Heart (SHC)	Rights issue	N/A	The company announced a 5:7 renounceable rights issue of ordinary shares. Each option holder can subscribe for one option for every two new shares issued under the offer. The exercise price will be 3.2c per option.
Sunshine Heart (SHC)	Completion of right issue	N/A	The company announced a rights issue raised a total of A$9.5m.
Tyrian Diagnostics (TDX)	Completion of rights issue	N/A	The company announced that it has successfully completed its 1:1 rights issue to raise $3.98m.
Unilife Corporation (UNI)	Amended resale statement	N/A	The company lodged its amended registration statement with US SEC. This will remove US federal restrictions on the sale of shares underlying certain options.
Unilife Corporation (UNI)	Financial backing	N/A	The company secured US Government backing of $10m for its new global headquarters and manufacturing facility in York, Pennsylvania.
Unilife Corporation (UNI)	Launch of Unitract Syringes in US	N/A	The company has commenced US sales of its Unitract range of 1mL safety syringes.
Unilife Corporation (UNI)	Placement update	N/A	The company completed a A$23.1m private placement which will be used to purchase additional capital equipment.
Unilife Corporation (UNI)	Share purchase plan	N/A	The company said its plan was significantly oversubscribed. The company received applications for about 15.1m new CHESS Depositary Interests (CDIs) with a value of approximately A$12.8m.
Uscom (UCM)	Board appointment	N/A	The company appointed Phil Kiely as executive chairman, effective on finalising a capital raising. He will replace Rob Phillips who will remain on the board as director of medical science.
Uscom (UCM)	N/A	N/A	Rob Phillips has undertaken not to exercise his voting power as a shareholder in a manner inconsistent with the recommendations of the board.
Uscom (UCM)	New capital and board	N/A	Uscom revamped its board after a capital raising of $3m.

05 Appendix

Companies in the PwC Life Sciences Index

		Closing MCap (A$m)	Quarterly return
Medical Device		Q2 FY11	
ACG	ATCOR MEDICAL HOLDINGS LIMITED	12.34	-29%
ADO	ANTEO DIAGNOSTICS LIMITED	56.85	57%
AMT	ADVANCED SURGICAL DESIGN & MANUFACTURE LIMITED	12.18	-20%
AYX	AUSTOFIX GROUP LIMITED	7.75	-20%
BOD	BIOMD LIMITED	3.87	3%
BRC	BRAIN RESOURCE COMPANY LIMITED (THE)	18.34	-7%
CBB	CORDLIFE LIMITED	45.06	-15%
CGS	COGSTATE LTD	15.64	-6%
CLV	CLOVER CORPORATION LIMITED	64.42	39%
CMP	COMPUMEDICS LIMITED	30.78	46%
COH	COCHLEAR LIMITED	4,556.78	8.2%
CXD	CATHRX LTD	40.12	6%
CYC	CYCLOPHARM LIMITED	13.85	9%
ELX	ELLEX MEDICAL LASERS LIMITED	25.90	107%
EMS	EASTLAND MEDICAL SYSTEMS LTD	23.11	50%
GBI	GENERA BIOSYSTEMS LIMITED	28.20	0%
HIN	HEARTWARE INTERNATIONAL, INC	1,152.82	-2%
IPD	IMPEDIMED LIMITED	121.81	43%
ITD	ITL LIMITED	10.40	39%
KSX	KARMELSONIX LIMITED	15.40	17%
LBT	LABTECH SYSTEMS LIMITED	6.46	0%
MDG	MEDTECH GLOBAL LIMITED	6.52	12%
MDV	MEDIVAC LIMITED	13.91	43%
MGZ	MEDIGARD LIMITED	5.01	-56%
MLA	MEDICAL AUSTRALIA LIMITED	4.98	-24%
MOD	MEDICAL CORPORATION AUSTRALASIA LIMITED	49.82	770%
NAN	NANOSONICS LIMITED	197.55	64%
NDL	NEURODISCOVERY LIMITED	4.17	19%
OBJ	OBJ LIMITED	27.33	5%
OIL	OPTISCAN IMAGING LIMITED	9.60	42%
RMD	RESMED INC	5,276.59	-3%
SHC	SUNSHINE HEART, INC	36.46	-3%
SOM	SOMNOMED LIMITED	39.51	23%
TDX	TYRIAN DIAGNOSTICS LIMITED	7.01	-22%
UBI	UNIVERSAL BIOSENSORS, INC	240.95	-2%
UCM	USCOM LIMITED	12.33	-52%
UNS	UNILIFE CORPORATION	291.32	-22%

		Closing MCap (A$m)	Quarterly return
Pharma and Biotech		Q2 FY11	
ACR	ACRUX LIMITED	587.53	96%
ACW	ACTINOGEN LIMITED	2.79	143%
ACU	ACUVAX LIMITED	5.72	-25%
AGX	AGENIX LIMITED	17.29	38%
ACL	ALCHEMIA LIMITED	120.90	22%
ALT	ANALYTICA LIMITED	10.69	0%
ANP	ANTISENSE THERAPEUTICS LIMITED	6.22	-46%
AOP	APOLLO CONSOLIDATED LIMITED	8.39	50%
APH	ASCENT PHARMAHEALTH LTD	92.29	37%
AVX	AVEXA LIMITED	33.06	18%
AVH	AVITA MEDICAL LTD	12.26	-4%
BLT	BENITEC LIMITED	11.72	-22%
BDM	BIODIEM LIMITED	14.71	18%
BNO	BIONOMICS LIMITED	98.72	17%
BPH	BIOPHARMICA LIMITED	31.51	150%
BPO	BIOPROSPECT LIMITED	9.68	-23%
BTA	BIOTA HOLDINGS LIMITED	179.00	-3%
BIT	BIOTRON LIMITED	14.62	67%
BNE	BONE MEDICAL LIMITED	4.14	-50%
CBZ	CBIO LIMITED	30.57	-19%
CZD	CALZADA LIMITED	9.01	4%
CST	CELLESTIS LIMITED	240.38	-9%
CDY	CELLMID LIMITED	10.28	58%
CXS	CHEMGENEX PHARMACEUTICALS LTD	128.92	54%
CIR	CIRCADIAN TECHNOLOGIES LIMITED	26.45	14%
CUV	CLINUVEL PHARMACEUTICALS LIMITED	62.89	820%
CTE	CRYOSITE LIMITED	5.13	-8%
CSL	CSL LIMITED	19,816.63	11%
GEN	GENESIS RESEARCH AND DEVELOPMENT CORPORATION LIMITED	1.05	20%
GTG	GENETIC TECHNOLOGIES LIMITED	13.35	-6%
GIA	GIACONDA LIMITED	3.65	7%
MYX	HALCYGEN PHARMACEUTICALS LIMITED	105.95	26%
HTX	HEALTHLINX LIMITED	11.96	-26%
HXL	HEXIMA LIMITED	28.37	66%
HCT	HOLISTA COLLTECH LIMITED4	14.26	4%
IMC	IMMURON LIMITED	20.75	-4%
IMU	IMUGENE LIMITED	7.90	62%
IDT	INSTITUTE OF DRUG TECHNOLOGY AUSTRALIA LIMITED	25.92	-3%
LCT	LIVING CELL TECHNOLOGIES LIMITED	38.31	-37%
MVP	MEDICAL DEVELOPMENTS INTERNATIONAL LIMITED	22.79	86%
MSB	MESOBLAST LIMITED	1,179.85	152%
NEU	NEUREN PHARMACEUTICALS LIMITED	6.80	-20%
NRT	NOVOGEN LIMITED	12.26	-27%
NSP	NUSEP LIMITED	15.73	12%
PAB	PATRYS LIMITED	23.13	-3%
PXS	PHARMAXIS LTD	673.86	45%
POH	PHOSPHAGENICS LIMITED	88.76	20%
PYC	PHYLOGICA LIMITED	18.14	-9%
PBT	PRANA BIOTECHNOLOGY LIMITED	30.25	-16%
PRR	PRIMA BIOMED LTD	126.69	62%

		Closing MCap (A$m)	Quarterly return
Pharma and Biotech		Q2 FY11	
PCC	PROBIOMICS LIMITED	2.94	-9%
PBP	PROBIOTEC LIMITED	36.89	-49%
PGL	PROGEN PHARMACEUTICALS LIMITED	6.92	-25%
PVA	PSIVIDA CORP	87.47	34%
QRX	QRXPHARMA LIMITED	176.08	19%
SIE	SCIGEN LIMITED	71.80	-55%
SLT	SELECT VACCINES LIMITED	6.79	50%
SRX	SIRTEX MEDICAL LIMITED	337.40	23%
SLA	SOLAGRAN LIMITED	40.20	8%
SPL	STARPHARMA HOLDINGS LIMITED	202.22	55%
STI	STIRLING PRODUCTS LIMITED	9.92	17%
TEO	TELESSO TECHNOLOGIES LIMITED	1.32	67%
TIS	TISSUE THERAPIES LIMITED	99.58	300%
VLA	VIRALYTICS LIMITED	18.19	-11%
VHL	VIRAX HOLDINGS LIMITED	4.86	-60%
XCD	XCEED CAPITAL LTD	4.00	100%

Notes:

MVH	Removed from index. Company has moved into information technology sector
AQL	Removed from index. Company has moved into biofuel sector
HGN	Halcygen Pharmaceuticals Limited changed its name to Mayne Pharma Group Limited (MYX)
FLS	Removed from index. Suspended from the ASX

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Methodology

Sources

BioForum draws on historical data from the following sources:

- Bloomberg
- Connect 4
- the ASX
- company websites
- *PwC Global Pharma and Life Science Quarterly Newsbriefs*

Market performance

The Australian life sciences sector's market performance is tracked through two indices:

i. PwC Life Sciences Index

ii. PwC Life Sciences Index ex majors (CSL, ResMed and Cochlear)

Analysis is provided without the large-capitalisation stocks (majors) so the performance of smaller-capitalisation stocks can be observed.

The PwC Life Sciences Index is based on the performance of life sciences companies listed on the Australian Securities Exchange (ASX). It comprises two subsectors:

i. pharmaceutical/biotechnology

ii. medical devices

These sectors have been classified according to the Global Industry Classification Standard. The index includes life sciences companies primarily involved in research, development, commercialisation and manufacturing of pharmaceutical and biotechnology products and medical devices. It excludes healthcare, medical software and distribution companies. Companies included in the PwC Life Sciences Index are listed at the end of each issue of *BioForum*.

The PwC Life Sciences Index is based on the combined market capitalisation of the listed companies and calculates the change of their value over the quarter and change over the previous year. These changes are compared to the changes in the market performance of the following indices:

- ASX All Ordinaries
- NASDAQ Composite
- NASDAQ Biotech

Different formulae are used to calculate the value of these indices and track their performance. These formulae use a combination of company market prices and a weighted average of market capitalisation. Because of these different methods of calculating value, the absolute value of the indices cannot be directly compared. Only their changes over time can be sensibly compared.

Top and bottom performers

Annual data on these companies is sourced from Bloomberg each quarter. Company announcements are sourced from the ASX or directly from company websites.

IPO and secondary finance markets

IPO and secondary financing data is sourced from the Connect 4 database's health-care industry category. We include data from companies on the PwC Life Sciences Index only. Data on options, rights and bonus issues is excluded. The US IPO and secondary financing data is sourced from our quarterly *PwC Global Pharma and Life Sciences Newsbrief*.

Announcements

These are from companies listed on the PwC Life Sciences Index only. They are sourced from Connect 4 using the health-care industry category. We include announcements on partnerships, mergers and acquisitions and divestments, clinical results, regulatory activity and other information. Examples of other information include management and board changes, the closing or opening of offices, and successful grant applications.

Announcements on the following are excluded:

- trading halts
- capital raisings
- proposed (versus actual) mergers, acquisitions and partnerships
- progress reports on clinical trials (results only are included)
- market registration approval

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External contributors:

PwC Global Pharmaceutical Team

Quantitative research and analysis by the PwC BioForum team:

Joe Adendorff, Senior Consultant
Stephen Hearne, Consultant

PwC Life Sciences Practice contributors:

Craig Lawn, Partner, National Life Sciences Industry Leader
Manoj Santiago, Partner, Sydney Life Sciences Industry Leader

whatwouldyouliketogrow.com.au

PricewaterhouseCoopers
201 Sussex Street
Sydney NSW 2000
+61 2 8266 0000

pwc

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