

**In this edition...**

The Nasdaq Biotech Index reached a new high on Friday, closing at 2,017 points. While US interest rates have been low-to-zero for five years, the argument to put your money into new products from emerging technologies that service the dollar-sapping healthcare sector runs strong. This explains in part the remarkable opening of the life sciences IPO window in the first half of 2013. Twenty-one companies IPO'd and of those, 17 were in positive territory as of Friday. The question is - will the trend carrier through to local markets and stimulate a flood of IPOs of Australian and New Zealand companies? GI Dynamics is now funded to complete its pivotal US study as it works also to sell its Endobarrier product in various regions outside of the US.

**Companies Covered: US IPOs, GID**

	Bioshares Portfolio
Year 1 (May '01 - May '02)	21.2%
Year 2 (May '02 - May '03)	-9.4%
Year 3 (May '03 - May '04)	70.6%
Year 4 (May '04 - May '05)	-16.3%
Year 5 (May '05 - May '06)	77.8%
Year 6 (May '06 - May '07)	17.4%
Year 7 (May '07 - May '08)	-36%
Year 8 (May '08 - May '09)	-7.4%
Year 9 (May '09 - May '10)	50.2%
Year 10 (May '10 - May '11)	45.4%
Year 11 (May '11 - May '12)	-18.0%
Year 12 (May '12 - May '13)	3.1%
Year 13 (May '13 - Current)	9.4%
<b>Cumulative Gain</b>	<b>290%</b>
<b>Av. annual gain (12 yrs)</b>	<b>16.6%</b>

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# Bioshares

12 July 2013  
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*Delivering independent investment research to investors on Australian biotech, pharma and healthcare companies.*

## The US Life Science IPO Window Blows Wide Open

The life science equity market in the US opened up with considerable force in the first half of 2013. There were 21 companies which successfully completed an IPO, with three of those originating from outside the US – **GW Pharmaceuticals** from the UK, **Alcobra** from Israel and **Prosensa** from the Netherlands. In 2012, only an estimated thirteen life science companies debuted on US trading boards.

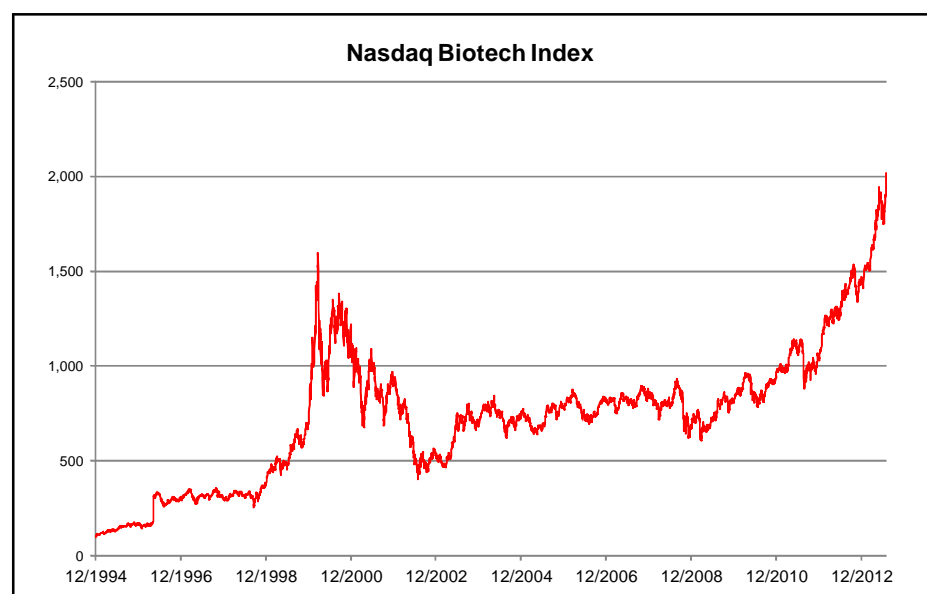
The performance of these stocks has been overwhelmingly positive, with three posting decreases from their offer price (to Friday's close), one with no share price change but with 17 stocks recording price increases ranging from 16% to 172%. This is a stunning performance.

One stock which posted an increase of 147%, Epizyme, now has a capitalisation of US\$1 billion, yet has only one Phase I trial underway. The company's appeal most likely stems from its control of a novel approach to developing personalised therapeutics for genetically defined cancers. Epizyme raised US\$77 million, not far off the median figure of US\$65 million. The aggregate figure raised by the 21 companies was US\$1.4 billion

### Why an Open Window?

A number of reasons could explain the bursting open of the US biotech IPO window. However, the most obvious explanation is that the Nasdaq Biotech Index has had a tremendous run in the past two years. From a low of 888 points in August 2011, the Nasdaq Biotech Index has continued to climb, steadily and inexorably, to hit a new all-time peak on Friday of 2,017 points (an increase of 127%).

*Cont'd over*



Perhaps the opened, or opening, IPO window can be attributed to the positive performances of some of the 13 IPOs which took place in 2012 and which then inspired more companies to do road shows and test sentiment and pricing support. It is worth noting that only three IPOs were withdrawn in the first half of 2013. Waiting in the wings are **Conatus Pharmaceuticals**, **Heat Biologics** and **Cellular Dynamics** to IPO in the remaining weeks of July, with **Agios** and **Intrexon** likely to follow suit later in the year.

### Instant Acquisition!

One company became the subject of a takeover bid at the end of May almost as soon as it listed in mid-May. **Omthera Pharmaceuticals** is being acquired by **AstraZeneca** for US\$323 million (which is its current market capitalisation) or US\$12.70 a share. Shareholders will also receive a Contingent Value Right worth up to US\$4.70 a share, or worth in total US\$120 million. Omthera, which is developing treatments for dyslipidemias (cholesterol related conditions), listed with an offer price of US\$8.00.

Omthera had recently submitted an NDA with the FDA for its drug Epanova, so the haste by AstraZeneca to 'capture' the company before it took development further under its own steam, in a market where the cost of capital is on the way down for development stage therapeutic product developers, makes some sense.

### A Local Markets Perspective

The last IPO by a life sciences company on the ASX was that of **Osprey Medical** in May 2012. Osprey Medical shares listed at \$0.40, reached a peak of \$0.69 in January 2013 and closed on Friday at \$0.49. This is one Australian IPO compared to 34 in the USA. Even if four backdoor listings or repurposings are counted

(**Invision**, **Novogen**, **Imugene** and **Oncosil Medical**), the activity level for 'new listings' in Australia is still low compared to US markets. A much greater focus has been on follow-on financings, with a handful of companies garnering significant funding tranches.

Furthermore, the under-performance by a number of high profile (and not so high profile) stocks has dampened the enthusiasm of institutional investors for committing funds to life science plays.

There are a reasonable number of private companies in Australia and New Zealand seeking capital to continue the development of their technologies and drug products. One such example discussed recently is Hatchtech, which is seeking \$12 million (see Bioshares 505). While some of these companies might prefer to access private equity markets, the theme emerging from the US is that the public markets are now willing to back high-risk medical technology plays again.

The IPOs in the US for the first half of 2013 were fairly evenly spread across the therapeutic areas of pain, CNS, immune conditions, cancer, cardiovascular, antivirals and antibiotics, with one in the animal health arena. What was surprising was the number (~7) of companies with programs at the Phase I or Phase II stage of development, indicating that the mantra of only listing in the US at the Phase III stage is longer valid.

VC investment into Australian private biotechs has fallen to low levels in the last two years. There may now be a renewed push for private Australian and New Zealand life science firms to list on local exchanges.

### Bioshares

US Life Science IPOs		Sorted by OFFER AMOUNT				
Company	Stock Code	CMP (\$US) 12/7	Change from Pricing	Cap'n (US\$M)	Offer Amount (US\$M)	
PTC Therapeutics Inc.	PTCT	\$16.94	13%	\$401	\$126	
Portola Pharmaceuticals Inc.	PTLA	\$24.12	66%	\$817	\$122	
Chimerix Inc.	CMRX	\$24.01	72%	\$618	\$102	
bluebird bio Inc.	BLUE	\$30.65	80%	\$699	\$101	
Prosensa B.V.	RNA	\$27.75	113%	\$805	\$78	
Epizyme Inc.	EPZM	\$37.08	147%	\$1,025	\$77	
Tetraphase Pharmaceuticals Inc.	TTPH	\$7.83	12%	\$162	\$75	
Receptos Inc.	RCPT	\$18.38	31%	\$324	\$73	
KaloBios Pharmaceuticals Inc.	KBIO	\$5.84	-27%	\$141	\$70	
Esperion Therapeutics Inc.	ESPR	\$17.05	22%	\$249	\$70	
Ambit Biosciences Corp.	AMBI	\$10.79	35%	\$191	\$65	
Omthera Pharmaceuticals Inc.	OMTH	\$13.25	66%	\$323	\$64	
Enanta Pharmaceuticals Inc.	ENTA	\$17.80	27%	\$317	\$56	
NanoString Technologies Inc.	NSTG	\$9.00	-10%	\$131	\$54	
LipoScience Inc.	LPDX	\$6.29	-30%	\$92	\$45	
Aratana Therapeutics Inc.	PETX	\$8.51	42%	\$169	\$35	
Stemline Therapeutics Inc.	STML	\$27.23	172%	\$318	\$33	
Insys Therapeutics, Inc.	INSY	\$17.05	113%	\$365	\$32	
GW Pharmaceuticals Plc	GWPH	\$8.90	0%	\$99	\$31	
Alcobra Ltd.	ADHD	\$10.69	34%	\$119	\$25	
Cancer Genetics Inc.	CGIX	\$11.60	16%	\$50	\$6	
Total				\$7,414	\$1,340	
Median				\$317	\$65	
Average				\$353	\$64	

US Life Science IPOs		Sorted by CHANGE FROM PRICING				
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An expanded table for this data can be found on the following page.

## US Life Science IPOs - H1 CY2013

Company	Stock Code	IPO Date	Shares Offered (M)	Offer Amount (US\$M)	Pricing (US\$)	CMP (US\$) 12/7	Change from Pricing	Cap'n (US\$M)
<b>LipoScience Inc.</b>	LPDX	25/01/2013	5.00	\$45.00	\$9.00	\$6.29	<b>-30%</b>	\$92
Sector sub-category: <b>DIAGNOSTICS (PERSONALISED)</b>								
Developing NMR based tests. Lead product NMR Lipoprofile directly measures the number of low density lipoproteins in a blood sample								
<b>Stemline Therapeutics Inc.</b>	STML	29/01/2013	3.32	\$33.18	\$10.00	\$27.23	<b>172%</b>	\$318
Sector sub-category: <b>HUMAN THERAPEUTICS (ANTI CANCER STEM CELLS)</b>								
Planning Phase IIb trials of SL-401 (IL-3+diphtheria toxin) and SL-701 (a peptide vaccine).								
<b>KaloBios Pharmaceuticals Inc.</b>	KBIO	31/01/2013	8.75	\$70.00	\$8.00	\$5.84	<b>-27%</b>	\$141
Sector sub-category: <b>HUMAN THERAPEUTICS (MONOCLONAL ANTIBODIES)</b>								
Lead candidate KB001-A (pegylated mab) is in Cystic Fibrosis Phase II trial. Second program is an anti-GMCSF mab in a Phase II asthma trial.								
<b>Tetraphase Pharmaceuticals Inc.</b>	TTPH	20/03/2013	10.71	\$75.00	\$7.00	\$7.83	<b>12%</b>	\$162
Sector sub-category: <b>HUMAN THERAPEUTICS (ANTIBIOTICS)</b>								
Preparing for 2 Phase III trials of eravacycline, an (oral) fully synthetic tetracycline derivative, to treat multi-drug resistant infections								
<b>Enanta Pharmaceuticals Inc.</b>	ENTA	21/03/2013	4.00	\$56.00	\$14.00	\$17.80	<b>27%</b>	\$317
Sector sub-category: <b>HUMAN THERAPEUTICS (HCV)</b>								
Portfolio of HCV inhibitors, including NS3 protease inhibitor, ABT-450; also cyclophilin, nucleotide polymerase inhibitors								
<b>Cancer Genetics Inc.</b>	CGIX	5/04/2013	0.60	\$6.00	\$10.00	\$11.60	<b>16%</b>	\$50
Sector sub-category: <b>DIAGNOSTICS (CANCER)</b>								
Markets MatBA-CLL, a microarray for risk stratification for small lymphocytic lymphoma								
<b>Omthera Pharmaceuticals Inc.</b>	OMTH	11/04/2013	8.00	\$64.00	\$8.00	\$13.25	<b>66%</b>	\$323
Sector sub-category: <b>SPECIALITY PHARMACEUTICALS</b>								
Developing treatments for dyslipidemia. Recently submitted NDA for Epanova. AstraZeneca acquiring OM for \$12.70/share + CVR\$4.70/share								
<b>Chimerix Inc.</b>	CMRX	11/04/2013	7.32	\$102.48	\$14.00	\$24.01	<b>72%</b>	\$618
Sector sub-category: <b>HUMAN THERAPEUTICS (ANTIVIRALS)</b>								
Anticipates commencing Phase III trial of CMX001 in CMV infected HSCT recipients in 2013. Based on a proprietary lipid technology.								
<b>GW Pharmaceuticals Plc</b>	GWPH	1/05/2013	3.50	\$31.15	\$8.90	\$8.90	<b>0%</b>	\$99
Sector sub-category: <b>HUMAN THERAPEUTICS (PAIN)</b>								
UK-based developer of cannabinoid therapies, with Sativa approved for treatment of spasticity due to MS in 21 countries ex-USA								
<b>Insys Therapeutics, Inc.</b>	INSY	1/05/2013	4.00	\$32.00	\$8.00	\$17.05	<b>113%</b>	\$365
Sector sub-category: <b>HUMAN THERAPEUTICS (PAIN)</b>								
Markets Subsys (sub-lingual fentanyl) and Dronobyl SG Capsule products. Also developing Dronobyl Oral Solution								
<b>Receptos Inc.</b>	RCPT	9/05/2013	5.20	\$72.80	\$14.00	\$18.38	<b>31%</b>	\$324
Sector sub-category: <b>HUMAN THERAPEUTICS (IMMUNE DISORDERS)</b>								
Developing RPC1063 for relapsing remitting MS (in Phase II) and IBD and RPC4046 (a mab, pre-IND) for Eosinophilic Esophagitis								
<b>Ambit Biosciences Corp.</b>	AMBI	16/05/2013	8.13	\$65.00	\$8.00	\$10.79	<b>35%</b>	\$191
Sector sub-category: <b>HUMAN THERAPEUTICS (VARIOUS - SMALL MOL KINASE INHIBITORS)</b>								
Phase II (acute myeloid leuk.) lead candidate quizartinib targets FLT3. AC410 targets JAK2. AC708 targets CSFR1.								
<b>Alcobra Ltd</b>	ADHD	22/05/2013	3.13	\$25.00	\$8.00	\$10.69	<b>34%</b>	\$119
Sector sub-category: <b>HUMAN THERAPEUTICS (CNS)</b>								
Israel based company developing MG01C1 to treat ADHD. Has completed Phase II; commencing IND discussions with the FDA.								
<b>Portola Pharmaceuticals Inc.</b>	PTLA	22/05/2013	8.42	\$122.13	\$14.50	\$24.12	<b>66%</b>	\$817
Sector sub-category: <b>HUMAN THERAPEUTICS (THROMBOSIS)</b>								
Lead compound Betrixaban is in Phase III for the prevention of venous thromboembolism								
<b>Epizyme Inc.</b>	EPZM	31/05/2013	5.14	\$77.13	\$15.00	\$37.08	<b>147%</b>	\$1,025
Sector sub-category: <b>HUMAN THERAPEUTICS (CANCER)</b>								
Developing personal. Therap. for genetically defined cancers (developing inhibitors of histone methyltransferases); 1 Phase I trial u/way								
<b>bluebird bio Inc.</b>	BLUE	19/06/2013	5.94	\$101.00	\$17.00	\$30.65	<b>80%</b>	\$699
Sector sub-category: <b>HUMAN THERAPEUTICS (GENE THERAPY)</b>								
Anticipates commencing Phase III trial of LentiGlobin in subjects with beta-thalassemia major and sickle cell disease								
<b>PTC Therapeutics Inc.</b>	PTCT	20/06/2013	8.37	\$125.58	\$15.00	\$16.94	<b>13%</b>	\$401
Sector sub-category: <b>HUMAN THERAPEUTICS (SMALL MOL ORPHAN DRUG FOCUS)</b>								
Developing Ataluren for Duchenne's Muscular Dystrophy; Phase III trial underway; submitted MAA to EMA in 2012								
<b>NanoString Technologies Inc.</b>	NSTG	26/06/2013	5.40	\$54.00	\$10.00	\$9.00	<b>-10%</b>	\$131
Sector sub-category: <b>DIAGNOSTICS (MOLECULAR, BREAST CANCER)</b>								
Markets nCounter Analysis System which simultaneously profiles hundreds of molecules; also Prosigna molecular breast cancer diagnostic								
<b>Esperion Therapeutics Inc.</b>	ESPR	26/06/2013	5.00	\$70.00	\$14.00	\$17.05	<b>22%</b>	\$249
Sector sub-category: <b>HUMAN THERAPEUTICS (CARDIO-METABOLICS)</b>								
Lead compound ETC-1002 is an oral therapy for the treatment of patients with elevated low density lipoprotein; 3 Phase IIa completed								
<b>Aratana Therapeutics Inc.</b>	PETX	27/06/2013	5.75	\$34.50	\$6.00	\$8.51	<b>42%</b>	\$169
Sector sub-category: <b>ANIMAL THERAPEUTICS (COMPANION ANIMAL FOCUS)</b>								
Developing three in-licensed compounds; for the treatment of pain and osteoarthritis, and inappetence								
<b>Prosensa B.V.</b>	RNA	28/06/2013	6.00	\$78.00	\$13.00	\$27.75	<b>113%</b>	\$805
Sector sub-category: <b>HUMAN THERAPEUTICS (RNA MODULATION)</b>								
Netherlands-based company developing drisapersen to treat Duchenne's Muscular Dystrophy; Phase IIb underway								

## ***GI Dynamics – Rollout of a Novel Therapy for Diabetes and Obesity***

GI Dynamics (GID: \$0.60) is rolling out its medical device for the treatment of Type 2 diabetes and obesity throughout Europe, Australia, the Middle East and South America. It has also recently started a pivotal study in the US to allow it to gain approval in the world's largest medical market. GI Dynamics (GID) had a lofty start when it listed on the ASX almost two years ago at \$1.10 a share raising \$80 million. However with its share price now having almost halved and with solid commercial progress, it warrants closer examination of this company's novel product.

### **Raises \$57.5 Million**

Recently GID put itself into a very secure financial footing, announcing it had received commitments to raise \$57.5 million, with part of that placement pending shareholder approval. The capital raise was done at an 11% discount to its closing price, at 53 cents per CDI. The company will also raise up to \$2.5 million through an SPP. The funds will be used for working capital and to fund the US pivotal study, which is expected to cost a further US\$30 million to complete.

GID sells a gastric sleeve, called the EndoBarrier, which is placed just below the stomach in the first part of the duodenum. It has an effect of changing hormone levels that, although not fully understood in biological mechanism of action terms, reduces glucose levels and appetite. It is thought this occurs because the device increases glucagon-like peptide-1 levels (causing a drop in glucose) and increases peptide YY levels (which reduces caloric intake).

The device is inserted by a reasonably straightforward procedure without a general anaesthetic with an endoscope via the mouth, and is removed in the same way.

### **Performance of the Endobarrier**

Inserting the Endobarrier sleeve for one year in patients has shown to achieve rapid reductions in blood sugar levels and a weight loss of around 20%. In the GI Dynamic's 2012 annual report, the company detailed some patient experiences with the Endobarrier. One patient in the UK with Type 2 diabetes lost 33kg in one year and achieved a reduction in HbA1c levels from 10% to 5%.

HbA1c is a surrogate measure for the average glucose levels in the blood stream over the previous three months. An HbA1c level of less than between 4%-6% is considered normal for people without diabetes. For people with diabetes, good control in blood glucose levels corresponds to an HbA1c level of less than 7%. Over 8% is too high, and over 10% is considered unstable diabetes, where a person can not get a heavy motor vehicle license.

Another patient in Australia saw his HbA1c levels fall from 8.4% to 6.0% six months after an Endobarrier implant, also losing 19kg in weight. A third patient from Chile reduced his HbA1c levels from 7.0% to 5.0% with a 35kg loss in weight at 12 months.

The Endobarrier is now being sold in Australia, Germany (seven centres), Austria, the Netherlands, UK, Spain, Switzerland, Israel (two centres) and Chile (four centres, no reimbursement but self

pay). The company has appointed a distributor in Brazil and is awaiting regulatory approval in that country (expected in 2014). GID is also seeking approval in the Middle East, including in Qatar and Saudi Arabia. One surgeon in Chile has already implanted more than 100 patients to date.

### **Sales Progress**

GID sells the EndoBarrier for around US\$4,000 and it costs approximately US\$6,000 to have the device implanted. Based on GID's quarterly cash flow statements, the company is selling around 350 of the devices a year, which is up from just over 100 a year ago. That should translate to annualised revenue of \$1.4 million based on the March quarter receipts from customers.

### **Building Clinical Data**

There are a number of important aspects for making the Endobarrier product a successful global medical device. One of those is achieving reimbursement for the product, which will assist sales, however is not entirely dependent on reimbursement. In Australia and Chile, sales are being achieved through self pay and is also being paid for by private insurers.

Another important aspect is building the clinical data behind the technology. Results from a 20 patient study were published at the start of this year. That study, in patients with type 2 diabetes and mild obesity, showed that the EndoBarrier delivered a statistically significant improvement in mean HbA1c levels after six months, from 8.6% to 7.5%. Cholesterol levels were also reduced by 15%.

In a 12 month diabetes trial in 13 patients, patients lost on average 20 kg (from an average starting weight of 121kg). The patients also reduced their HbA1c levels from 8.9% very significantly to 6.6%, moving the patients from very high blood glucose levels to a stable disease state. Importantly in this trial it was shown that the average HbA1c levels were maintained for at least six months after the EndoBarrier sleeve was removed.

### **Treatment of Diabetes a Very Sensible Strategy**

GID has very sensibly chosen to go for reductions in HbA1c levels rather than positioning its therapy as a treatment for obesity as its primary efficacy measure. The treatment of diabetes is a more pressing medical need than providing a weight loss therapy. This should make the path through the FDA approval process less demanding, with a higher side effect profile acceptable.

The key issue with the EndoBarrier system is that a percentage of patients have the device removed due to side effects, which includes nausea, vomiting, pain and intestinal bleeding (less common). In clinical studies, 21% of patients had the EndoBarrier removed in the first 12 months due to side effects. The company indicated that the rates of early removal have been decreasing in the commercial setting, with results as good or better than in clinical trials.

### **US Pivotal Trial Underway**

To get the product approved in the US and in what will be the largest and most objective trial conducted of the product, GID

– *GI Dynamics cont'd*

commenced a 500 patient pivotal study in the US in people with uncontrolled diabetes and obesity in January. The trial is expected to take up to two years to complete enrolment (end of 2014) with final results expected in the second half of 2015.

The trial will cost around US\$35 million to complete. To date, nine of the 25 sites are recruiting patients. The trial will be blinded, with a proportion of patients receiving a sham implant. This will ensure an objective and accurate assessment of the device. The primary endpoint will be a reduction in HbA1c levels. Secondary endpoints will be weight loss and improvement in cardiovascular risk factors such as cholesterol levels.

**French Reimbursement Study**

Last month GID announced that the French government would fund a 174 patient study with the EndoBarrier device. The trial will be coordinated by a French hospital and will compare EndoBarrier with the standard of care (diet, physical activity and counselling). The trial will evaluate the impact and cost of the EndoBarrier device and is an important part of gaining reimbursement in France.

**Collaboration with GSK and Medtronic**

In January this year GID formed an R&D collaboration with Medtronic and GlaxoSmithKline. Both partners are actively involved in the diabetes development area. The collaborations will look into the effects that EndoBarrier has on glucose levels (via continuous measurement) and on hormone responses to the EndoBarrier device.

**Risks**

The key risks for GID are competing technologies that may emerge and a potentially negative result from the 500 patient US pivotal study, or an inability to complete this study.

A key challenge for the company is to have the technology broadly adopted by healthcare professionals, given that there will be a subset of patients who will not successfully complete 12 month treatment due to side effects.

However, given the poor condition of the health of suitable patients and the pronounced effect that the therapy is showing in returning blood glucose levels to within a normal range with a 20% reduction in weight, the benefit would appear to outweigh the treatment’s side effect profile.

**Forthcoming Milestones**

For the next 18 months, the company's focus is to complete enrolment in the US pivotal trial, to expand market entry into other countries, to secure reimbursement in all regions where the product becomes available, and to increase the number of commercial centres that have been prepared to offer the treatment. At the end of April this year, there were 37 centres on board (with nine new centres added in the first quarter).

Key performance measures for investors to monitor will be the recruitment rate into the US trial, progression of sales and the number of commercial sites globally that offer the treatment.

**Summary**

GI Dynamics has a very experienced management team and board of directors. It also has a credentialled share registry that includes Johnson & Johnson, Medtronic, Polaris Venture Partners and UK investment fund M&G (which has also invested in Mesoblast and Starpharma Holdings).

It is addressing a market that is massive, with around 63 million obese people with Type 2 diabetes. The market for people with Type 2 diabetes who are not obese is even larger and the company plans to expand the indication to those people further on.

The EndoBarrier product has the advantage (over gastric bypass surgery) that it can be easily reversed. The device is efficacious, quickly reducing blood glucose levels to normal levels in about 60% of cases and results in around a 20% weight loss in 12 months.

With the funding round completed recently and the solid commercial progress the company is making, GID is worth monitoring closely.

GI Dynamics will have \$74 million in cash with the funds from this placement and will be capitalised at \$233 million following the capital raising.

*Bioshares* recommendation: **Speculative Hold Class B**

**Bioshares**

<b>Bioshares Model Portfolio (12 July 2013)</b>			
<b>Company</b>	<b>Price (current)</b>	<b>Price added to portfolio</b>	<b>Date added</b>
Atcor Medical	\$0.070	\$0.082	May 2013
Circadian Technologies	\$0.280	\$0.270	March 2013
Tissue Therapies	\$0.140	\$0.255	March 2013
Benitec Biopharma	\$0.015	\$0.016	November 2012
Nanosonics	\$0.685	\$0.495	June 2012
Somnomed	\$1.06	\$0.94	January 2011
Cogstate	\$0.340	\$0.13	November 2007
Universal Biosensors	\$0.77	\$1.23	June 2007

**Portfolio Changes – 12 July 2013**

**IN:**  
No changes

**OUT:**  
No changes

**How Bioshares Rates Stocks**

For the purpose of valuation, Bioshares divides biotech stocks into two categories. The first group are stocks with existing positive cash flows or close to producing positive cash flows. The second group are stocks without near term positive cash flows, history of losses, or at early stages of commercialisation. In this second group, which are essentially speculative propositions, Bioshares grades them according to relative risk within that group, to better reflect the very large spread of risk within those stocks. For both groups, the rating “Take Profits” means that investors may re-weight their holding by selling between 25%-75% of a stock.

**Group A**

Stocks with existing positive cash flows or close to producing positive cash flows.

- Buy** CMP is 20% < Fair Value
  - Accumulate** CMP is 10% < Fair Value
  - Hold** Value = CMP
  - Lighten** CMP is 10% > Fair Value
  - Sell** CMP is 20% > Fair Value
- (CMP–Current Market Price)

**Group B**

Stocks without near term positive cash flows, history of losses, or at early stages commercialisation.

**Speculative Buy – Class A**

These stocks will have more than one technology, product or investment in development, with perhaps those same technologies offering multiple opportunities. These features, coupled to the presence of alliances, partnerships and scientific advisory boards, indicate the stock is relative less risky than other biotech stocks.

**Speculative Buy – Class B**

These stocks may have more than one product or opportunity, and may even be close to market. However, they are likely to be lacking in several key areas. For example, their cash position is weak, or management or board may need strengthening.

**Speculative Buy – Class C**

These stocks generally have one product in development and lack many external validation features.

**Speculative Hold – Class A or B or C**

**Sell**

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