EDISON

Edison Healthcare Insight

September 2017

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The Edison healthcare team

www.edisongroup.com

Maxim Jacobs

Max joined Edison's healthcare team in December 2014. Prior to this he worked as a senior analyst at Guidepoint Global. Max has also previously worked as a senior analyst at Ridgemark Capital, a sector head at Broadfin Capital and as a senior analyst at Mehta Partners. He is a CFA charter holder.

Dr Nathaniel Calloway

Nathaniel Calloway joined the healthcare team in December 2015. Before Edison, he performed healthcare investment research for a fund at Bishop Rosen and for Wainscott Capital Partners. Prior to his role as an analyst he performed molecular neuroscience research at Cornell Medical School and holds a PhD in chemistry from Cornell. He has published eight scientific papers on topics ranging from physical chemistry to immunology, and he has been recognised as an American Heart Association fellow and an American Chemical Society Medicinal Chemistry fellow.

Pooya Hemami

Pooya is a licensed optometrist with over five years of experience in life sciences equity research. Prior to joining Edison, he covered the Canadian healthcare sector as a research analyst at Desjardins Capital Markets. He holds a doctor of optometry degree from the University of Montreal, and an MBA (finance concentration) from McGill University. He received his CFA charter in 2011.

Dr John Savin

John is an analyst working on biotech, pharma, medical device and diagnostics companies. As founder CEO of Physiomics, he devised the strategy, raised funds and took the company to AIM in 2004. At Greig Middleton, John was director in charge of the pharma and biotech analyst team and worked with corporate finance on fund-raising, IPOs and corporate restructuring. He has an industry background in sales and marketing with GE Healthcare and AstraZeneca and is a co-author on a number of scientific publications.

Juan Pedro Serrate

Juan joined Edison's Healthcare team in April 2016. A veterinarian by training, he has held business positions in the healthcare sector over the past 12 years. Juan has collaborated with independent equity research firms, specialising in fundamental analysis and valuations. For more than six years, he co-managed a seed capital fund in Spain that invested in biotech start-ups and projects. Earlier in his career, he was a research fellow at the Yale University School of Medicine. He has a Master's degree in biotechnology, as well as an MBA from IESE Business School.

Dr Dennis Hulme

Dennis joined Edison in December 2014. Prior to this he worked as an analyst at BBY Stockbrokers and as a research scientist at CSIRO. Dennis was ranked number two healthcare stock picker in the 2010 Starmine Analyst Awards and has a PhD in veterinary sciences.

Dr Linda Pomeroy

Linda joined Edison in early 2016. She has co-founded an orthopaedic company, worked for a number of years as a consultant on various NHS projects, and previously worked at Numis Securities as a life sciences analyst. Linda has a PhD from Imperial College Business School and an MPhil in bioscience enterprise from the University of Cambridge.

Dr Susie Jana

Susie joined the team in September 2015 and has 16 years' experience in the healthcare sector. She is a qualified medical doctor, having studied medicine at UCL. She also holds an intercalated BSc in psychology. After a few years working as a junior doctor in the NHS, Susie joined the investment banking industry for six years on the sell-side covering biotechnology stocks, then mid- to large-cap pharmaceuticals at Société Générale. Most recently she worked as a buy-side analyst, covering European biotech, pharma and medtech stocks at F&C Investments for five years.

Dr Jonas Peciulis

Jonas joined Edison in November 2015. He is a qualified medical doctor with several years of clinical practice. He then moved into equity research as a healthcare analyst at Norne Securities, focused on Norwegian companies, and received two StarMine awards for stock picking in 2013. Most recently, he worked for a London-based life sciences venture capital company before completing his MBA degree.

Dr Daniel Wilkinson

Daniel joined Edison's Healthcare team in January 2016. He spent four years at Imperial College London, where he undertook both a Master's in Chemical Biology of Health & Disease and a PhD in Biosensors and Biotechnology in Diabetes. Before this he worked at eTect, a spin-out company from the University of Leeds that was focused on biosensor technology. He is currently studying for the Investment Management Certificate (IMC).

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Prices at 14 September 2017

Published 20 September 2017

Welcome to the September edition of the Edison Healthcare Insight. In this edition we have profiled 66 of our healthcare companies under coverage.

Readers wishing more detail should visit our website, where reports are freely available for download (www.edisongroup.com). All profit and earnings figures shown are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

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We welcome any comments/suggestions our readers may have.

Neil Shah & Maxim Jacobs

Healthcare Research

Company profiles

Prices at 14 September

US$/£ exchange rate: 0.7518
€/£ exchange rate: 0.8942
C$/£ exchange rate: 0.6170
A$/£ exchange rate: 0.6009
NZ$/£ exchange rate: 0.5434
SEK/£ exchange rate: 0.0937
DKK/£ exchange rate: 0.1202
NOK/£ exchange rate: 0.0953
JPY/£ exchange rate: 0.0068
NIS/£ exchange rate: 0.2100
CHF/£ exchange rate: 0.7791

Sector: Pharma & healthcare

Price:	€4.64
Market cap:	€142m
Market	FRA

Share price graph (€)

Company description

4SC is a Munich-based cancer biopharmaceutical company. Resminostat is the lead candidate for cutaneous T-Cell lymphoma (pivotal study started Q416) and partnered with Yakult Honsha in Japan. It has a second anti-cancer compound, 4SC-202 (planned Phase II H217) and a preclinical asset, 4SC-208. It also partners a Phase I oncology asset.

Price performance

%	1m	3m	12m
Actual	6.0	28.4	115.1
Relative*	2.8	31.2	78.0

* % Relative to local index

Analyst

Dr Linda Pomeroy

4SC (VSC)

INVESTMENT SUMMARY

4SC has recently announced an updated and progressive development plan, which it intends to fund from the recent equity capital raise (€41m gross). It has initiated (late 2016) its pivotal 150-patient study with anti-cancer compound resminostat (HDAC inhibitor) for cutaneous T-cell lymphoma (CTCL). Top-line data is expected by 2019. Resminostat has also been licensed to Yakult Honsha in Japan. 4SC announced in 2016 positive Phase II results from a more detailed analysis of the HCC Yakult trial data, which could lead to further clinical development. Alongside resminostat, 4SC intends to advance 4SC-202 into a first pivotal study (late 2018) and complete formal development of 4SC-208 with the aim of starting Phase I clinical testing (early 2019). Other ongoing positives include a partnership with Link Health in China for its oncology Eg5 inhibitor, 4SC-205 and a worldwide license for 4SC's preclinical inhibitors of the Kv1.3 ion channel.

INDUSTRY OUTLOOK

Resminostat could become the first HDAC inhibitor to gain EU approval for CTCL (vs two HDACs approved in the US). CTCL has been validated as a target indication for HDACs, with vorinostat (Merck & Co) and romidepsin (Celgene) FDA-approved on Phase II data.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	3.3	(7.9)	(8.4)	(58.58)	N/A	N/A
2016	2.1	(10.9)	(10.9)	(54.17)	N/A	N/A
2017e	N/A	N/A	N/A	N/A	N/A	N/A
2018e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price:	34.0p
Market cap:	£73m
Market	AIM

Share price graph (p)

Company description

Abzena provides proprietary technologies and complementary services to enable the development and manufacture of biopharmaceutical products.

Price performance

%	1m	3m	12m
Actual	(25.3)	(19.1)	(26.9)
Relative*	(24.7)	(17.2)	(33.4)

* % Relative to local index

Analyst

Dr Linda Pomeroy

Abzena (ABZA)

INVESTMENT SUMMARY

Abzena offers fully integrated research and manufacturing services/technologies that enable safer and more effective biological products. This includes immunogenicity assessment, protein/antibody engineering, bioconjugation, biomanufacturing and chemistry/conjugation. It has a fully integrated offering which has a global operating presence and cross selling opportunities across the group. Recent fundraising of £25m (gross) will enable it to expand its service offering and capacity. Fee-for-services provides stable revenues today (H117 £9.0m), while successful commercialisation of products created using Abzena's technologies offers the prospect of substantial future revenues (small % royalties); 12 such products are now in the clinic, eg Gilead's GS-5745 (Phase III for gastric cancer) and Roche's RG6125 (formerly SDP051). Abzena has recently announced another licensing deal for its ADC linker technology (ThioBridge™), which adds to the previous deals for up to ten ADC products in one case and with Halozyme for up to three ADC targets.

INDUSTRY OUTLOOK

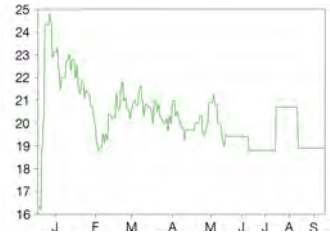
The biological services industry is highly competitive but Abzena's deepening portfolio of technologies and services is compelling, while its ADC technology offers safety and efficacy advantages over competitors.

Y/E Mar	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2016	9.9	(6.8)	(7.4)	(5.86)	N/A	N/A
2017	18.7	(7.5)	(8.3)	(5.82)	N/A	N/A
2018e	N/A	N/A	N/A	N/A	N/A	N/A
2019e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price: SEK18.90
Market cap: SEK435m
Market NASDAQ OMX First North

Share price graph (SEK)



Company description

Acarix, a Swedish company, has developed the CE-marked CADScor to enable about half of the patients to be ruled out from further, expensive testing. Private sales in Germany have started. Full EU sales may start from 2019. US sales might start from 2021.

Price performance

%	1m	3m	12m
Actual	(7.8)	(3.1)	N/A
Relative*	(3.8)	3.0	N/A

* % Relative to local index

Analyst

Dr John Savin

Acarix (ACARIX)

INVESTMENT SUMMARY

Acarix sold three CADScore units in H1 worth SEK 193k. The loss was SEK 11m. H1 cash outflow was SEK 26.8m with 30 June cash of SEK 116m. The cash outflow was increased after paying SEK 13.7m of other liabilities and working capital movements due to sales. EPS including exceptional items was SEK (3.63). The first sale in the crucial German market was to a private Berlin cardiology clinic. This follows the first sale in Denmark. CADScore helps doctors to identify the patients who probably require no further risky invasive clinical testing.

INDUSTRY OUTLOOK

Germany has a strong private healthcare insurance sector (about 10% of people covered) which might adopt quickly given that there are stated to be over 1 million hospital cardiac assessments each year, many unnecessary. Major German and EU sales will need public reimbursement probably from 2019. US marketing will probably require a US clinical study, with sales from 2021 possible. The US has over 3.8 million tests for coronary artery disease per year.

Y/E Dec	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (öre)	P/E (x)	P/CF (x)
2015	N/A	(15.2)	(15.4)	(114.0)	N/A	N/A
2016	N/A	(26.8)	(26.8)	(183.0)	N/A	N/A
2017e	3.0	(51.8)	(51.4)	(211.0)	N/A	N/A
2018e	3.8	(49.6)	(49.5)	(203.0)	N/A	N/A

Sector: Pharma & healthcare

Price: US$3.57
Market cap: US$488m
Market NASDAQ

Share price graph (US$)

Company description

Achillion is engaged in the discovery and development of drugs from its research platform in its novel factor D programme. ACH-4471 is now in development for PNH, as well as C3G and IC-MPGN.

Price performance

%	1m	3m	12m
Actual	(26.7)	(16.2)	(53.6)
Relative*	(27.6)	(18.1)	(60.5)

* % Relative to local index

Analyst

Maxim Jacobs

Achillion Pharmaceuticals (ACHN)

INVESTMENT SUMMARY

Achillion is progressing its oral factor-D program in rare diseases, such as PNH,C3G and immune-complex membranoproliferative glomerulonephritis (IC-MPGN), as well as in larger opportunities including geographic atrophy, an advanced form of dry AMD. The company recently announced positive interim data in untreated PNH patients for ACH-4471, its oral factor-D candidate.

INDUSTRY OUTLOOK

Achillion is currently focused on drug development in relatively rare diseases. This strategy has multiple advantages including smaller trials, premium pricing, orphan drug protection and the ability to market the products without a large pharmaceutical partner.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	66.1	(4.3)	(3.9)	(3.11)	N/A	100.9
2016	15.0	(52.9)	(50.7)	(37.10)	N/A	N/A
2017e	0.0	(85.9)	(85.0)	(59.24)	N/A	N/A
2018e	0.0	(89.2)	(89.2)	(59.18)	N/A	N/A

Sector: Pharma & healthcare

Price:	NZ$2.50
Market cap:	NZ$243m
Market	NZSX

Share price graph (NZ$)

Company description

AFT Pharmaceuticals is a specialty pharmaceutical company that operates primarily in Australasia but has product distribution agreements across the globe. The company's product portfolio includes prescription and over-the-counter drugs to treat a range of conditions and a proprietary nebuliser.

Price performance

%	1m	3m	12m
Actual	(12.0)	8.7	(18.0)
Relative*	(12.1)	4.8	(21.3)

* % Relative to local index

Analyst

Maxim Jacobs

AFT Pharmaceuticals (AFT)

INVESTMENT SUMMARY

AFT Pharmaceuticals is a New Zealand-based speciality pharmaceutical company that currently sells 130 prescription speciality generics and OTC products through its own sales force in New Zealand, Australia and South-East Asia and has been expanding its geographic footprint. Maxigesic, its combination acetaminophen/ibuprofen product that is addressing a $10.4b market, is currently sold and launched in 9 countries and distribution agreements are in place in a total of 124. AFT is targeting between 30-40 launches for Maxigesic in FY18. AFT is also developing a handheld device called SURF Nebuliser, which is able to deliver therapies intranasally, with a main focus on the $3 billion conscious sedation market, while carrying out a preliminary study in sinusitis in parallel, with the aim of filing in H2 2018.

INDUSTRY OUTLOOK

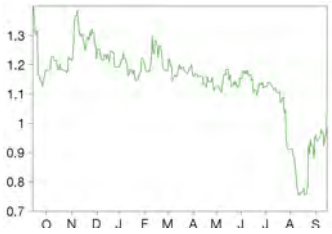
AFT is a multi product company targeting pharmacy prescription, OTC and hospital markets. Data for Maxigesic offers them a competitive advantage in a fragmented industry.

Y/E Mar	Revenue (NZ$m)	EBITDA (NZ$m)	PBT (NZ$m)	EPS (fd) (c)	P/E (x)	P/CF (x)
2016	64.0	(7.8)	(10.8)	(11.12)	N/A	N/A
2017	69.2	(15.1)	(18.5)	(19.12)	N/A	N/A
2018e	97.7	1.3	(0.6)	(0.61)	N/A	318.2
2019e	124.2	16.5	14.7	15.10	16.6	18.2

Sector: Pharma & healthcare

Price:	NIS1.04
Market cap:	NIS68m
Market	TASE

Share price graph (NIS)



Company description

Allium Medical Solutions is a company focused on developing and marketing minimally invasive devices in various areas: cardiovascular, metabolic, genitourinary and gastrointestinal. The company has three selling product lines: Allium Stents, IBI (EndoFast) and Gardia Medical.

Price performance

%	1m	3m	12m
Actual	36.5	(9.3)	(25.4)
Relative*	33.7	(8.7)	(27.1)

* % Relative to local index

Analyst

Juan Pedro Serrate

Allium Medical (ALMD)

INVESTMENT SUMMARY

Allium Medical Solutions is a company focused on developing and marketing minimally invasive devices in various areas: cardiovascular, metabolic, genitourinary and gastrointestinal. The company has three selling product lines: Allium Stents, IBI (EndoFast) and Gardia Medical. Peripheral stents and EndoFast urogynecology devices generate the bulk of revenues (70% of NIS7.3m in 2016). Allium has achieved revenue CAGR of 23% in 2011-16. The investment case rests on Allium's ability to execute on its ambitious growth strategy, with revenues expanding at a double-digit rate as the company continues to gain market share in established and new regions. Cash equivalents and short-term deposits at end June 2017 plus proceeds of July 2017 equity raise were NIS25.6m.

INDUSTRY OUTLOOK

We expect Allium's growth to accelerate in the medium term, driven by new markets, resulting in 2016-20e revenue CAGR of 46%. Allium also has two devices in preclinical development: Allevetix for diabetes and obesity (start a clinical trial in 2017) and TruLeaf, a mitral valve replacement device that will develop until completion of clinical trial. Gardia Medical's Wirion device has met the primary endpoint of its clinical trial, important for strategic partnering discussions.

Y/E Dec	Revenue (NISm)	EBITDA (NISm)	PBT (NISm)	EPS (NIS)	P/E (x)	P/CF (x)
2015	5.2	(16.3)	(18.5)	(0.65)	N/A	N/A
2016	7.4	(20.4)	(22.0)	(0.49)	N/A	N/A
2017e	9.7	(19.5)	(20.3)	(0.35)	N/A	N/A
2018e	16.6	(6.8)	(7.3)	(0.11)	N/A	N/A

Sector: Pharma & healthcare

Price:	36.8p
Market cap:	£27m
Market	AIM

Share price graph (p)

Company description

Angle is a world leading liquid biopsy company with a potentially disruptive platform technology. The patented Parsortix cell separation platform can harvest circulating tumour cells and other very rare cells from a blood sample for downstream analysis.

Price performance

%	1m	3m	12m
Actual	(18.3)	(42.1)	(42.6)
Relative*	(17.7)	(40.8)	(47.7)

* % Relative to local index

Analyst

Dr Jonas Peciulis

Angle (AGL)

INVESTMENT SUMMARY

Angle's patented Parsortix cell separation platform is used to detect and harvest circulating tumour cells (CTCs) from blood. CTCs provide the complete picture since viable, intact CTCs can be used for DNA, RNA and protein analysis as well as culturing and xenograft models. Recently the company reported initial results from its two lead clinical studies (n=200 each) for triaging women with ovarian masses before surgery. Reported sensitivity was up to 95%, while specificity was significantly higher than existing tests. The company is now optimizing the assay before undertaking clinical validation studies. Another key catalyst is the completion of the FDA clinical studies in breast cancer expected in H118, which is a part of the approval process in the US. More recently Angle has announced a co-marketing agreement with Qiagen, which could boost research use sales, which in FY17 were £498k, up from initial sales of £361k in H216. Clinical use sales represent much larger potential in the future. We are updating our estimates.

INDUSTRY OUTLOOK

The precision medicine approach is an initiative aiming to improve treatment efficacy by tailoring the treatment to the patient and their disease with liquid biopsy being one of the key enabling tools.

Y/E Apr	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2016	0.4	(4.9)	(5.0)	(7.97)	N/A	N/A
2017	0.5	(6.7)	(6.9)	(8.03)	N/A	N/A
2018e	N/A	N/A	N/A	N/A	N/A	N/A
2019e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price:	200.0p
Market cap:	£192m
Market	LSE

Share price graph (p)

Company description

Arix Bioscience is a life sciences portfolio company specialising in therapeutic and diagnostic companies. The portfolio currently includes direct and indirect investments across the life sciences.

Price performance

%	1m	3m	12m
Actual	8.1	(3.7)	N/A
Relative*	9.0	(1.5)	N/A

* % Relative to local index

Analyst

Maxim Jacobs

Arix Bioscience (ARIX)

INVESTMENT SUMMARY

Arix is a new transatlantic life sciences portfolio company drawing from managerial expertise at all levels of the pharma industry to engage in opportunities ranging from seed investing to public equity. It draws on a network of deal sources established through agreements with academia, life science accelerators, other funds, and through partnerships with big pharma. The portfolio currently includes a number of direct investments (Depixus, Artios, OptiKira, Autolus, Verona, Iterum, Harpoon, Mitoconix, LogicBio PreciThera and Amplyx), and Arix is taking an active role in the operations of these companies with board positions in each.

INDUSTRY OUTLOOK

Biopharma venture investing has historically outperformed the broader market, and Arix's permanent capital model allows it to capitalize on these opportunities without being bound to specific exit timing.

Y/E Dec	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2015	N/A	N/A	N/A	N/A	N/A	N/A
2016	0.0	(2.2)	(2.2)	(21.52)	N/A	N/A
2017e	5.3	(5.1)	(4.5)	(4.68)	N/A	N/A
2018e	2.1	(6.0)	(0.5)	(0.49)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$0.61
Market cap:	US$7m
Market	NASDAQ

Share price graph (US$)

Company description

Based in Seattle, WA, Atossa Genetics is focused on the development of locally administered pharmaceuticals for the treatment of pre-cancer and early-stage breast cancer. Lead candidate afimoxigene topical gel is expected to start a Phase II study in 2016 in breast hyperplasia or DCIS.

Price performance

%	1m	3m	12m
Actual	67.4	22.2	(73.1)
Relative*	65.4	19.4	(77.1)

* % Relative to local index

Analyst

Pooya Hemami

Atossa Genetics (ATOS)

INVESTMENT SUMMARY

Atossa is advancing oral endoxifen, a metabolite of tamoxifen, as a potential treatment for breast cancer patients refractory to tamoxifen. About 20-25% of the 1.0m women taking tamoxifen worldwide develop resistance to it, and have an increased risk for cancer recurrence. Atossa is also advancing a topical endoxifen formulation to treat high breast density, a possible precursor to cancer. The firm recently completed a 48-pt Phase I study on endoxifen. Atossa is also advancing its proprietary intraductal microcatheter (IDMC), intended to selectively introduce drugs to breast ducts, potentially improving drug targeting for chemotherapy. It is combining its IDMC with established cancer drug fulvestrant and opened enrolment for a 30-patient Phase II study in March 2016.

INDUSTRY OUTLOOK

IDMC-fulvestrant development may hinge on future FDA guidance on whether the projects can fall under the 505(b)2 development pathway, which would reduce the breadth of clinical data needed to support a marketing application. Atossa had $3.7 net cash at Q217, which we estimate extends its runway into Q417.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.0	(9.5)	(9.8)	(514.81)	N/A	N/A
2016	0.0	(6.9)	(7.3)	(245.98)	N/A	N/A
2017e	0.0	(9.7)	(9.9)	(210.84)	N/A	N/A
2018e	0.0	(10.9)	(11.2)	(216.54)	N/A	N/A

Sector: Pharma & healthcare

Price:	CHF80.40
Market cap:	CHF953m
Market	Swiss Stock Exchange

Share price graph (CHF)

Company description

Basilea is a Swiss biopharmaceutical company focused on anti-infectives and oncology. Its lead products are Cresemba, an antifungal that is approved in the US and Europe and Zevtera, an anti-MRSA broad-spectrum antibiotic, approved in Europe for pneumonia.

Price performance

%	1m	3m	12m
Actual	0.7	4.5	14.2
Relative*	0.2	1.9	2.8

* % Relative to local index

Analyst

Dr Susie Jana

Basilea Pharmaceutica (BSLN)

INVESTMENT SUMMARY

Basilea has two approved hospital-based products: Cresemba for severe mold infections and Zevtera for bacterial infections. Zevtera should enter US phase III development in the next 3-6 months following agreement of the SPA with the FDA and the award of a BARDA contract (worth up to $108m). Basilea's earlier-stage oncology pipeline focuses on drugs that target resistance to current cancer therapies. BAL101553 is being developed as a tumor checkpoint controller and recently presented final phase I/IIa data at ASCO. BAL3833, a panRAF kinease inhibitor, is in Phase I development. Our forecasts are under review following the announcement of the major license agreement with Pfizer for Cresemba commercialisation in Europe (ex Nordics), Russia, Turkey and Israel and the distribution agreement with Cardiome for Zevtera in Europe and Israel.

INDUSTRY OUTLOOK

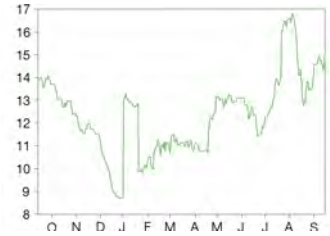
There is an increasing need for novel antimicrobial agents with efficacy against resistant strains of bacteria (eg MRSA), and/or improved side effect profiles. Hence the opportunities for Zevtera and Cresemba could be significant.

Y/E Dec	Revenue (CHFm)	EBITDA (CHFm)	PBT (CHFm)	EPS (fd) (CHFc)	P/E (x)	P/CF (x)
2015	52.8	(58.9)	(61.3)	(607.22)	N/A	N/A
2016	66.0	(41.6)	(50.9)	(505.74)	N/A	N/A
2017e	N/A	N/A	N/A	N/A	N/A	N/A
2018e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price:	NIS15.06
Market cap:	NIS55m
Market	TASE

Share price graph (NIS)



Company description

Based in Israel, BioLight is an emerging ophthalmic company focused on the development and commercialisation of products and product candidates that address ocular conditions. Lead products IOPtiMate and VS-101 are directed towards the treatment of glaucoma.

Price performance

%	1m	3m	12m
Actual	5.0	18.7	12.3
Relative*	2.9	19.4	9.7

* % Relative to local index

Analyst

Pooya Hemami

Bio-Light Life Sciences (BOLT)

INVESTMENT SUMMARY

BioLight Life Sciences is advancing several eyecare products and technologies. It's IOPtima subsidiary (of which it holds a 70% stake) markets IOPtiMate, a laser-based surgical device to treat moderate to advanced glaucoma. BioLight is also advancing Eye-D VS-101, an extended-dose latanoprost drug implant designed to treat glaucoma that recently reported positive data in a Phase I/IIa trial, and TeaRx, a dry eye syndrome diagnostic test. VS-101 can be helpful for the 20-60% of glaucoma patients who do not comply with daily eye drop therapy.

INDUSTRY OUTLOOK

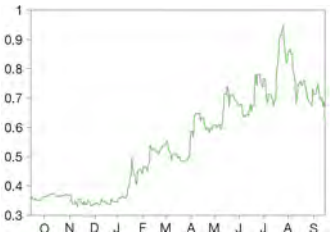
IOPtima signed a non-binding term sheet in April 2017 for it to be acquired by Chengdu Kanghong Pharma. While there is uncertainty on whether the deal will proceed, the transaction could potentially provide IOPtima shareholders with $17m (NIS62m) within six months of completion. This amount will be allocated to IOPtima shareholders on a pro rata basis according to the preferences assigned to different classes of IOPtima shares, and the potential allocation to BioLight has not been disclosed. BioLight's H117 net cash position of NIS25.5m (with NIS13.5m held at the parent company and the remainder at its subsidiaries) should be sufficient for the company to maintain operations into Q417.

Y/E Dec	Revenue (NISm)	EBITDA (NISm)	PBT (NISm)	EPS (NIS)	P/E (x)	P/CF (x)
2015	1.4	(24.3)	(25.1)	(6.96)	N/A	N/A
2016	2.1	(20.2)	(26.3)	(5.55)	N/A	N/A
2017e	2.2	(27.2)	(30.1)	(6.88)	N/A	N/A
2018e	8.9	(32.1)	(34.6)	(8.81)	N/A	N/A

Sector: Pharma & healthcare

Price:	NIS0.62
Market cap:	NIS120m
Market	TASE

Share price graph (NIS)



Company description

BiondVax is developing a potentially universal influenza vaccine and the lead candidate M-001 could be positioned as a primer for seasonal or pandemic vaccines or as a standalone influenza vaccine. So far M-001 has been tested in two Phase I/II and three Phase II trials and consistently demonstrated immunogenicity to multiple virus strains.

Price performance

%	1m	3m	12m
Actual	(18.1)	(9.3)	69.7
Relative*	(19.8)	(8.7)	65.8

* % Relative to local index

Analyst

Dr Jonas Peciulis

BiondVax Pharmaceuticals (BVXV)

INVESTMENT SUMMARY

BiondVax with its epitope-based multimeric vaccine candidate M-001 is among the leaders in the development of the universal influenza vaccine worldwide. In July 2017, the company announced positive Phase IIb trial results with both primary endpoints achieved (safety and influenza-specific cellular immune responses).

Before that M-001 was tested in two Phase I/II and three Phase II trials involving 479 participants in total and was shown to be consistently safe and immunogenic, and demonstrated synergy with conventional flu vaccines. At end-Q217, BiondVax had cash of $9.6m (NIS37m), but also have access to €20m following loan agreement with the European Investment Bank. This will support the development of M-001 well into Phase III, which is now in planning stage.

INDUSTRY OUTLOOK

Current influenza vaccines are solely strain specific, needs to be updated every year with the effectiveness still lingering around 40%. There is a clear need for a more reliable vaccine that is both more immunoprotective and with coverage against a wider range of flu strains for the entire population and in particular for the elderly.

Y/E Dec	Revenue (NISm)	EBITDA (NISm)	PBT (NISm)	EPS (NIS)	P/E (x)	P/CF (x)
2015	0.0	(10.7)	(10.2)	(0.10)	N/A	N/A
2016	0.0	(11.3)	(9.2)	(0.07)	N/A	N/A
2017e	0.0	(14.7)	(15.2)	(0.10)	N/A	N/A
2018e	0.0	(19.0)	(20.1)	(0.12)	N/A	N/A

Sector: Pharma & healthcare

Price:	€24.80
Market cap:	€147m
Market	Alternext Paris

Share price graph (€)

Company description

Carmat is developing a biocompatible, artificial heart to satisfy the lack of donor hearts available for terminal heart failure patients. The development process combines the expertise of a wide range of technical and medical experts.

Price performance

%	1m	3m	12m
Actual	(0.6)	(11.4)	(37.0)
Relative*	(2.7)	(11.2)	(47.5)

* % Relative to local index

Analyst

Pooya Hemami

Carmat (ALCAR)

INVESTMENT SUMMARY

Carmat obtained approval in May 2017 from the French regulatory agency (ANSM) to resume its pivotal trial for the Carmat heart. This follows a favourable review by ANSM of the actions and analyses taken by Carmat following the trial's suspension after the death in Q416 of this trial's first patient six weeks after his implantation. Carmat is now working to expand access in the 20-25-patient study to other European countries, and is preparing a new and more automated production site. Given the firm's year-end 2016 net cash position of €28.0m, we estimate Carmat can finance operations into Q218.

INDUSTRY OUTLOOK

The Carmat artificial heart is being developed as a permanent replacement or destination therapy (DT) for chronic biventricular heart failure or acute myocardial infarction patients, who do not have access to a human donor heart. Despite the high EU and US prevalence of Stage IV heart failure (c 500,000 patients), the shortfall in donor hearts is such that only about 3,800 human heart transplants were performed in Europe and the US in 2013.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.0	(19.4)	(20.6)	(381.32)	N/A	N/A
2016	0.3	(24.1)	(25.7)	(379.73)	N/A	N/A
2017e	0.0	(22.0)	(22.1)	(367.12)	N/A	N/A
2018e	0.0	(24.7)	(26.3)	(435.57)	N/A	N/A

Sector: Pharma & healthcare

Price:	€44.52
Market cap:	€424m
Market	Euronext Brussels

Share price graph (€)

Company description

Celyad is developing an innovative Natural Killer Receptor CAR T-cell therapy (CYAD-01). This targets targets five solid and two hematologic cancers in the THINK study. A colorectal cancer study with chemotherapy (SHRINK) is underway.

Price performance

%	1m	3m	12m
Actual	23.7	6.4	127.7
Relative*	21.2	4.0	100.0

* % Relative to local index

Analyst

Dr John Savin

Celyad (CYAD)

INVESTMENT SUMMARY

Celyad uses a novel Natural Killer Receptor CAR T-cell approach with the US and EU THINK Phase Ib trial underway in AML and MM plus five solid tumours (ovarian, triple negative breast, bladder, colorectal and pancreatic). In the first dose cohort, two colorectal patients showed stable disease after three months; no toxicity was seen. The SHRINK trial is underway in mCRC with FOLFOX therapy; combining T-cell therapy with chemotherapy will be necessary in solid cancers. Celyad has paid $25m in cash and shares to reduce the NKR royalties payable. Cash on 30 June was €66.8m.

INDUSTRY OUTLOOK

The August FDA approval of Novartis' Kymriah, a CD19 CAR T-cell for ALL, shows that CAR-T therapy can be approved. Kite's Axi-cell therapy for DLBCL may be approved by November. Celyad's NKR CAR T-cells target ubiquitous "stress" cancer antigens. Celyad also has a leading position in allogeneic therapy; Novartis has a non-exclusive licence in a $96m deal. Options for C-Cure cardiac therapy are being explored.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.0	(27.8)	(27.6)	(317.0)	N/A	N/A
2016	8.5	(24.1)	(22.8)	(209.0)	N/A	N/A
2017e	8.3	(26.7)	(27.2)	(286.0)	N/A	N/A
2018e	9.0	(24.7)	(25.2)	(265.0)	N/A	N/A

Sector: Pharma & healthcare

Price:	NIS0.43
Market cap:	NIS58m
Market	TASE

Share price graph (NIS)

Company description

CollPlant is an Israel-based regenerative medicine company. It is focused on developing and commercialising tissue repair products with its plant-based technology, rhCollagen. It has two products on the market, VergenixSTR and VergenixFG.

Price performance

%	1m	3m	12m
Actual	39.2	9.9	(54.8)
Relative*	36.4	10.6	(55.8)

* % Relative to local index

Analyst

Dr Linda Pomeroy

Collplant Holdings (CLPT)

INVESTMENT SUMMARY

CollPlant's investment story is built on the versatility of its plant-based technology, rhCollagen, and its application in regenerative medicine. It has strong potential across various subsectors, initially focusing on orthobiologics, advanced wound care and 3D printing of tissue and organs. Two products have recently been launched: VergenixFG, targeting chronic and acute wounds, and VergenixSTR, targeting tendinopathy. 2016 was an important year for CollPlant as it completed a clinical study and received its CE approval for VergenixSTR, entered into an exclusive distribution agreement with Arthrex to commercialise VergenixSTR in EMEA and launched VergenixFG in Europe. We expect CollPlant to build on this progress in 2017 by increasing its distribution of VergenixFG and orders from Arthrex, alongside developing its earlier-stage rhCollagen technology BioInk for 3D printing of organs and tissues. Recent announcement of a $5m placing leaves the company well-financed to progress.

INDUSTRY OUTLOOK

Orthobiologics and advanced wound care are substantial growing markets and are estimated to be worth $6.7bn (according to GlobalData) and $8.5bn (according to Smith & Nephew) respectively.

Y/E Dec	Revenue (NISm)	EBITDA (NISm)	PBT (NISm)	EPS (NIS)	P/E (x)	P/CF (x)
2015	0.0	(18.0)	(18.7)	(22.03)	N/A	N/A
2016	0.3	(27.0)	(27.9)	(27.72)	N/A	N/A
2017e	1.3	(15.5)	(16.3)	(12.72)	N/A	N/A
2018e	2.9	(17.2)	(17.8)	(13.86)	N/A	N/A

Sector: Pharma & healthcare

Price:	€5.45
Market cap:	€48m
Market	Euronext Paris

Share price graph (€)

Company description

Crossject develops new therapeutic entities to be administered using its proprietary, needle-free injection system, ZENEO. Crossject has seven products in its development pipeline, including products for rheumatoid arthritis, anaphylactic shock, migraine and Parkinson's.

Price performance

%	1m	3m	12m
Actual	2.8	(5.2)	(30.6)
Relative*	0.7	(5.0)	(42.2)

* % Relative to local index

Analyst

Maxim Jacobs

Crossject (ALCJ)

INVESTMENT SUMMARY

Crossject has developed a deep pipeline of products that are based on its proprietary needle-free injection system, ZENEO, across a variety of indications. The benefits of ZENEO include no need for needles, as well as a simple and quick (~1/10th of a second) delivery of the drug. Its first commercial product, ZENEO Sumatriptan for the acute treatment of migraines, should reach the market in 2019. The next products to reach the market include ZENEO Midazolam and ZENEO Adrenaline for epilepsy and anaphylactic shock, respectively. They should reach the market in 2019/20.

INDUSTRY OUTLOOK

Traditional injections have multiple issues with them which inhibit patient acceptance. These often include: lack of convenience, a multi-step injection process, difficulty in performing the injection correctly, and difficulty delivering the injection to the right tissue, particularly for overweight patients.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2014	1.7	(4.1)	(5.3)	(65.64)	N/A	N/A
2015	2.4	(5.5)	(6.7)	(85.33)	N/A	N/A
2016e	1.4	(5.6)	(7.3)	(85.19)	N/A	N/A
2017e	2.9	(4.7)	(5.4)	(43.99)	N/A	N/A

Sector: Pharma & healthcare

Price:	10.6p
Market cap:	£29m
Market	AIM

Share price graph (p)

Company description

e-Therapeutics is a UK-based drug discovery company that has developed a proprietary network pharmacology discovery platform. Its focus is now on commercialisation: securing partners for its discovery and development projects.

Price performance

%	1m	3m	12m
Actual	(1.2)	2.4	(1.2)
Relative*	(0.4)	4.8	(10.0)

* % Relative to local index

Analyst

Dr Charlotte Hetzel

e-Therapeutics (ETX)

INVESTMENT SUMMARY

e-Therapeutics (ETX) offers public market investors a unique opportunity to gain exposure to a proprietary, cutting-edge in silico drug discovery platform that has already attracted significant investment and has been fully operational since 2014. This second-generation platform has generated new chemical entities (NCEs) in several different disease areas and, under a new CEO, is on the cusp of commercial validation. The priority for the company is securing deals to provide external validation of this approach. ETX's strength is its discovery capability, particularly in complex disease; it also has two internal discovery projects with the prospect of more to come.

INDUSTRY OUTLOOK

Network-driven approaches could potentially revolutionise drug discovery and shorten the path to market by minimising technical risks and drug development costs. ETX is differentiated from its competitors through its expertise in curating, processing and analysing data in the context of mechanistic modelling of disease.

Y/E Jan	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2016	0.0	(11.3)	(11.1)	(3.3)	N/A	N/A
2017	0.0	(13.5)	(13.4)	(3.9)	N/A	N/A
2018e	0.0	(8.9)	(8.9)	(2.6)	N/A	N/A
2019e	0.0	(9.0)	(9.0)	(2.7)	N/A	N/A

Sector: Pharma & healthcare

Price:	€1.70
Market cap:	€132m
Market	Euronext Paris

Share price graph (€)

Company description

Genticel and privately-held company Genkyotex have signed a contribution agreement to form a combined entity focused on the development of NOX inhibitors for fibrosis and other indications. The transaction has been approved by Genticel's shareholders.

Price performance

%	1m	3m	12m
Actual	(9.1)	(17.1)	2.4
Relative*	(11.0)	(16.9)	(14.7)

* % Relative to local index

Analyst

Juan Pedro Serrate

Genkyotex (GKTX)

INVESTMENT SUMMARY

Genkyotex is a biotech company focused on NOX science and the development of small molecule NOX inhibitors for fibrosis and inflammation. Lead product GKT831 is in a Phase II clinical trial in primary biliary cholangitis (PBC) with data in 2018. Second product GKT771 is in advanced preclinical stage and will be Phase I ready by end 2017 and focus on inflammation and angiogenesis. A Phase II investigator-sponsored trial in patients with Type 1 diabetes (T1D) and kidney disease will start in Australia in H217. The company also has a portfolio of early stage NOX inhibitors for oncology, hearing loss and neurology indications. Genkyotex has partnership with the Serum Institute of India Ltd (SIIL) which involves up to $57m of milestone payments and single-digit royalties on net sales. Cash and equivalents were €18.1m at 30 June 2017, sufficient until 2018.

INDUSTRY OUTLOOK

The new company is focused on NOX science, an enzyme complex that generates reactive oxygen species (ROS). Increased NOX activity has been linked to various diseases; in particular to metabolic and cardiovascular diseases and neurodegeneration.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2014	N/A	N/A	N/A	N/A	N/A	N/A
2015	N/A	N/A	N/A	N/A	N/A	N/A
2016e	1.3	(21.7)	(21.7)	(27.8)	N/A	N/A
2017e	0.0	(12.0)	(12.0)	(15.4)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$107.14
Market cap:	US$2700m
Market	NASDAQ

Share price graph (US$)

Company description

GW is a UK-based speciality pharma company developing cannabinoid medicines. Lead pipeline candidate Epidiolex is undergoing Phase III trials for childhood epilepsy. Sativex is marketed by partners in a number of EU countries for MS spasticity.

Price performance

%	1m	3m	12m
Actual	4.7	8.4	4.9
Relative*	3.5	5.9	(10.7)

* % Relative to local index

Analyst

Maxim Jacobs

GW Pharmaceuticals (GWPH)

INVESTMENT SUMMARY

GW Pharmaceuticals (GW) is developing an extensive cannabinoid portfolio with potential to treat a broad range of diseases. The lead pipeline asset is Epidiolex, now undergoing a multiple Phase III clinical study program for refractory childhood epilepsies. Initial top-line Phase III data from their one trial in Dravet syndrome and two trials in Lennox-Gastaut syndrome (LGS) were all statistically significant. A rolling NDA submission has commenced and is expected to be completed in October. A filing in the EU is expected in Q417. They have also commenced Phase III trials in Tuberous Sclerosis Complex (TSC) and infantile spasms (IS).

INDUSTRY OUTLOOK

GW is the leading player in cannabinoid medicines. Cannabinoids are diverse chemical compounds that GW extracts from cannabis plant varieties (chemotypes) it has bred. Epidiolex has the potential to treat a broad range of treatment-refractory epilepsy conditions, while the portfolio extends to other orphan indications such as TSC epilepsy and NHIE.

Y/E Sep	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	37.1	(70.9)	(72.5)	(274.14)	N/A	N/A
2016	13.4	(109.1)	(110.3)	(345.47)	N/A	N/A
2017e	12.1	(166.8)	(167.4)	(568.42)	N/A	N/A
2018e	12.9	(161.6)	(162.6)	(551.07)	N/A	N/A

Sector: Pharma & healthcare

Price:	3742.5p
Market cap:	£2273m
Market	AIM, NASDAQ

Share price graph (p)

Company description

Hutchison China MediTech (HCM) is an innovative China-based biopharma company targeting the global market for novel, highly selective oral oncology and immunology drugs. Its established China Healthcare business is growing ahead of the market. HCM is the healthcare arm of CK Hutchison (c 40% listed on AIM and NASDAQ).

Price performance

%	1m	3m	12m
Actual	1.9	16.5	104.0
Relative*	2.7	19.2	85.8

* % Relative to local index

Analyst

Dr Susie Jana

Hutchison China MediTech (HCM)

INVESTMENT SUMMARY

HCM has built a substantial pipeline of potential first-in-class or best-in-class tyrosine kinase inhibitor (TKI) drugs, some of which are in development with strategic partners. HCM have submitted a new drug application (partnered with Eli Lilly) for fruquintinib in CRC to the China FDA (full Phase III CRC data [China] was presented at ASCO 2017), marking a major milestone in the company's life. Separately in collaboration with AstraZeneca, HCM have initated SAVOIR, a global Phase III trial of savolitinib in PRCC. PBT excludes the earnings contributions from JVs, which in 2016 reported at $66.2m (as equity in investees, net of tax).

INDUSTRY OUTLOOK

HCM's profitable Chinese healthcare business continues to benefit from the fast-growing domestic market, while the clinical, regulatory and technological environments are highly conducive to novel drug development. In the longer term, if the oncology and immunology pipeline comes to fruition, HCM has the potential to become a global oncology and immunology player.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	178.2	(7.8)	(10.5)	14.6	332.5	N/A
2016	216.1	(44.3)	(47.4)	19.6	247.7	N/A
2017e	234.2	(48.6)	(53.8)	(34.9)	N/A	N/A
2018e	262.5	(30.9)	(36.9)	(16.0)	N/A	N/A

Sector: Pharma & healthcare

Price:	€0.60
Market cap:	€28m
Market	Alternext Paris

Share price graph (€)

Company description

Hybrigenics is a French biotech company. It provides protein-protein and small molecule analysis services and is conducting anti-cancer studies on lead drug inecalcitol, primarily in adult leukaemias.

Price performance

%	1m	3m	12m
Actual	3.4	(20.5)	(31.8)
Relative*	1.3	(20.3)	(43.2)

* % Relative to local index

Analyst

Juan Pedro Serrate

Hybrigenics (ALHYG)

INVESTMENT SUMMARY

Hybrigenics has adopted a development strategy with vitamin D3 derivative inecalcitol, focusing on adult haematological cancers. In addition to chronic lymphocytic leukaemia (CLL) and chronic myeloid leukaemia (CML), Hybrigenics is prioritising acute myeloid leukaemia (AML) given inecalcitol's orphan status in the US and Europe and the scarcity of treatment options in this aggressive and difficult to treat leukaemia. Inecalcitol has the potential to enhance rather than replace approved therapies, particularly with its benign safety profile. The company has refocused exclusively on R&D with the management buy-out of its subsidiary dedicated to proteomic services. Cash at end December 2016 was €8.5m. The company successfully raised €6.8m in July 2017.

INDUSTRY OUTLOOK

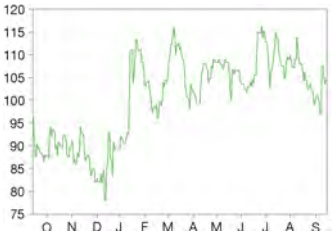
An international Phase II study in AML has started recruiting patients in France and the US in H2 2016. Encouraging initial data from a Phase II in CML has been presented. At interim, 33% of patients who had completed one year in the study achieved a deep molecular response (DMR) which may allow patients to discontinue treatment (functional cure). Finally, the collaboration with Servier on ubiquitin-specific proteases is ongoing and the company received a milestone payment of €1.5m during H116.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	2.2	(4.4)	(4.5)	(13.2)	N/A	N/A
2016	3.6	(3.8)	(3.9)	(10.8)	N/A	N/A
2017e	3.7	(5.0)	(4.9)	(13.8)	N/A	N/A
2018e	5.6	(3.5)	(3.6)	(9.9)	N/A	N/A

Sector: Pharma & healthcare

Price:	SEK105.25
Market cap:	SEK1769m
Market	NASDAQ OMX First North

Share price graph (SEK)



Company description

Immunovia is a Swedish company, specialised in diagnostics for oncology and autoimmune diseases. Its main product is IMMray PanCan-d, an antibody microarray based on its proprietary IMMray platform. A prospective trial in high-risk patients will start in Q416. The company expects to generate initial out-of-pocket sales in 2018.

Price performance

%	1m	3m	12m
Actual	(2.3)	0.7	9.4
Relative*	(3.7)	4.9	(2.6)

* % Relative to local index

Analyst

Juan Pedro Serrate

Immunovia (IMMUNOV)

INVESTMENT SUMMARY

Immunovia is developing IMMray PanCan-d, a blood-based test for the early detection of pancreatic cancer. Early diagnosis could improve 5-year survival rate to c 50%. On the back of positive retrospective data (PanCan-d discriminated healthy individuals from those with pancreatic cancer with 96% accuracy) Immunovia started a prospective trial in high-risk patients in Dec 2016. The company expects to generate initial out-of-pocket sales in 2018. It has signed a collaboration with the US National Cancer Institute to validate biomarkers in patients over 50 years old with new onset diabetes. Additionally, IMMray biomarker signatures distinguished Systemic Lupus Erythematosus (SLE) from three other autoimmune diseases with 96% accuracy; and Rheumatoid Arthritis (RA) from SLE, Sjögren Syndrome and Systemic Vasculitis, with 89% accuracy. Cash and equivalents at 30 June 2017 were SEK228.3m.

INDUSTRY OUTLOOK

Immunovia is targeting a potential opportunity of over SEK36bn. It will first target patients with a family history of pancreatic cancer, or other pancreatic diseases with increased risk of cancer (estimated at 200,000 in the EU/US) followed by patients over 50 years of age diagnosed with type 2 diabetes, (estimated at 3.4 million new patients per year).

Y/E Dec	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (öre)	P/E (x)	P/CF (x)
2015	17.0	(7.1)	(7.4)	(65.0)	N/A	N/A
2016	24.5	(14.4)	(14.7)	(98.0)	N/A	N/A
2017e	27.8	(17.8)	(17.6)	(104.0)	N/A	N/A
2018e	43.6	(30.3)	(30.8)	(183.0)	N/A	N/A

Sector: Pharma & healthcare

Price:	NIS26.69
Market cap:	NIS693m
Market	TASE

Share price graph (NIS)

Company description

Intec Pharma is a drug delivery company that has developed the accordion pill, a novel gastroretentive controlled release formulation. The company is currently using this technology to develop AP-CDLD for Parkinson's in Phase III and AP-ZP for insomnia in Phase II.

Price performance

%	1m	3m	12m
Actual	44.7	37.6	17.8
Relative*	41.7	38.5	15.1

* % Relative to local index

Analyst

Maxim Jacobs

Intec Pharma (NTEC)

INVESTMENT SUMMARY

Intec Pharma is a drug delivery company that has developed a novel drug delivery device termed the accordion pill (AP), a folded, multilayer membrane packaged into a normal capsule, which expands to a sheet within the stomach to many times its original size. This property causes the pill to be retained in the stomach for up to 12 hours. This is ideal for drugs with local activity in the stomach or upper digestive tract or with poor solubility. AP-CDLD, a controlled release formulation of carbidopa and levodopa for Parkinson's is in Phase III with enrollment expected to complete by YE17 with data in mid-2018. They have also completed a Phase I trial of AP-CBD/THC, their cannabinoid program and will make an announcement regarding its future by YE17.

INDUSTRY OUTLOOK

Parkinson's disease is a neurodegenerative disease in which the dopamine secreting neurons in the brain are lost, leading to severe motor defects and cognitive impairment. Approximately one million people in the US have Parkinson's.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.0	(8.3)	(7.2)	(92.16)	N/A	N/A
2016	0.0	(14.5)	(13.4)	(116.72)	N/A	N/A
2017e	0.0	(21.7)	(20.8)	(78.49)	N/A	N/A
2018e	0.0	(18.3)	(17.3)	(62.26)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$1.64
Market cap:	US$7m
Market	OTCQX

Share price graph (US$)

Company description

International Stem Cell is an early-stage biotechnology company developing therapeutic, biomedical and cosmeceutical applications for its proprietary stem form of pluripotent stem cells – human parthenogenetic stem cells (hpSCs). Its lead candidate is a cell therapy treatment for Parkinson's disease.

Price performance

%	1m	3m	12m
Actual	21.5	33.3	(11.4)
Relative*	20.0	30.3	(24.5)

* % Relative to local index

Analyst

Maxim Jacobs

International Stem Cell (ISCO)

INVESTMENT SUMMARY

International Stem Cell (ISCO) is an early-stage cell therapy company currently in Phase I/IIa clinical trials to treat Parkinson's disease (PD), and is currently dosing the second cohort of patients (6 so far). The company is also preparing to initiate a Phase II trial in traumatic brain injury in the coming months. With its hpSC technology, ISCO has created 15 stem cell lines, each of which is a different HLA type. From this, it creates different cell types such as liver cells, neural cells and three-dimensional eye structures. In addition, ISCO sells skincare and biomedical supplies to the market, generating $7.2m in sales and $1.3m in underlying operating profit in 2016.

INDUSTRY OUTLOOK

ISCO's technology platform is based on human parthenogenetic stem cells (hpSCs). Parthenogenetic stem cells are created from unfertilized human eggs (oocytes) chemically activated to make the cells pluripotent. As hpSCs express fewer parental histocompatibility antigens, they reduce the risk of immune rejection.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	7.6	(5.0)	(4.6)	(129.29)	N/A	N/A
2016	7.2	(5.2)	(4.9)	(33.82)	N/A	N/A
2017e	7.6	(4.6)	(4.9)	(122.16)	N/A	N/A
2018e	8.3	(7.3)	(8.2)	(196.08)	N/A	N/A

Sector: Pharma & healthcare

Price:	€5.60
Market cap:	€82m
Market	Euronext Amsterdam

Share price graph (€)

Company description

Kiadis Pharma is a biotech company focused on cell-based immunotherapies to overcome complications associated with stem cell transplants in blood diseases. ATIR101 for leukaemia is in Phase II and will file for EU approval in Q117. ATIR201 (thalassemia) started a Phase I/II in December 2016.

Price performance

%	1m	3m	12m
Actual	(5.1)	(12.3)	(49.1)
Relative*	(6.6)	(13.6)	(57.6)

* % Relative to local index

Analyst

Juan Pedro Serrate

Kiadis Pharma (KDS)

INVESTMENT SUMMARY

Kiadis Pharma is developing T cell-based therapies to address the issues associated with haematopoietic stem cell transplantation (HSCT). The company uses its Theralux technology to develop ATIR101 and ATIR201 as adjunct therapies to HSCT in leukaemia and thalassemia, respectively. On the back of Phase II data, Kiadis filed a Marketing Authorisation Application (MAA) of ATIR101 with the European Medicines Agency (EMA) in April 2017. A Phase III trial has been approved in several countries. ATIR201 is undergoing a Phase I/II trial with data expected in H217. Cash at 30 June 2017 was €10.7m. Kiadis raised €5m in June 2017 and has a debt facility of up to €15m obtained in Aug 2017.

INDUSTRY OUTLOOK

Kiadis's Theralux platform allows the infusion of lymphocytes from a partially matching (haploidentical) family member to the donor as it eliminates cells that could react against the host's immune cells and cause complications such as Graft vs Host Diasease (GVHD). Positive one year data (Event-Free Survival and Overall Survival) from Phase II clinical trial with ATIR101 was presented at the ASH 58th Annual Meeting in San Diego, USA. Overall survival was 61% for the ATIR101 arm vs 20% of a historic control group receiving HSCT only. GFRS was 57% for HSCT+ATIR101 vs 20% for the control group.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2014	0.0	(6.0)	(7.2)	(74.62)	N/A	N/A
2015	0.0	(15.9)	(17.4)	(136.50)	N/A	N/A
2016e	0.0	(8.6)	(10.0)	(71.58)	N/A	N/A
2017e	0.0	(11.9)	(13.5)	(96.42)	N/A	N/A

Sector: Pharma & healthcare

Price:	€7.72
Market cap:	€204m
Market	Scale

Share price graph (€)

Company description

MagForce has a European approved nanotechnology-based therapy to treat brain cancer. Nanoparticles are injected into the tumour and activated by an external magnetic field, producing heat and thermally destroying or sensitising the tumour.

Price performance

%	1m	3m	12m
Actual	12.0	(2.2)	71.7
Relative*	8.6	(0.1)	42.1

* % Relative to local index

Analyst

Dr Daniel Wilkinson

MagForce (MF6)

INVESTMENT SUMMARY

MagForce is moving forward with its strategy to drive uptake and acceptance (in the US and Europe) of its NanoTherm nanoparticle-based therapy for cancer. In Germany, Magforce has six centres commercially capable (three utilised, c50 patients to date) of treating glioblastoma (GBM) patients. To accelerate uptake of NanoTherm treatment in Europe, we expect MagForce to look to expand from Germany into other countries (funded primarily by an up to €35m loan from the European Investment Bank). In the US, its subsidiary Magforce USA is in talks with the FDA to initiate a planned clinical trial in prostate cancer patients (potential launch in 2018). The company expects the trial to initiate in H217; data are expected 12 months later.

INDUSTRY OUTLOOK

MagForce's NanoTherm therapy has been designed to directly affect tumours from within, while sparing surrounding healthy tissue. Magnetic nanoparticles are directly injected into a tumour and are then heated in the presence of an external magnetic field generated by specialist equipment (NanoActivator). This can destroy or sensitise the tumour for additional treatment.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	2.6	(4.4)	(4.5)	(17.73)	N/A	N/A
2016	0.5	(6.6)	(7.2)	(27.81)	N/A	N/A
2017e	3.5	(3.8)	(4.6)	(17.41)	N/A	N/A
2018e	6.5	(4.3)	(5.6)	(21.13)	N/A	N/A

Sector: Pharma & healthcare

Price:	€12.98
Market cap:	€287m
Market	FRA

Share price graph (€)

Company description

Medigene is a German biotech company with a core business in cancer immunotherapy. Dendritic cell (DC) vaccines are in Phase I/II clinical studies, while a T-cell receptor (TCR) candidate should enter the clinic in 2017.

Price performance

%	1m	3m	12m
Actual	38.0	14.6	89.4
Relative*	33.8	17.1	56.8

* % Relative to local index

Analyst

Dr Linda Pomeroy

Medigene (MDG1)

INVESTMENT SUMMARY

Medigene is focused on the rapid development of its cancer immunotherapy technology platforms: dendritic cell (DC) cancer vaccines, adoptive T-cell therapy (TCR) and T-cell specific antibodies (TAB). Phase I/II studies are ongoing with DC vaccines for prostate cancer and acute myeloid leukaemia (investigator-sponsored) and acute myeloid leukaemia (Medigene). For TCRs, Medigene plans to start up to three clinical trials; the first in 2017 (investigator-led) and company-led late 2017 and 2018. Important progress includes an alliance with bluebird bio, a prominent T-cell immunology company, to utilise its TCR technology platform to identify four therapeutic candidates against four targets. This is positive as it validates its TCR technology and offers potential upside from any development. Medigene is well-funded to execute its clinical programme, particularly following a recent fund-raising (€20.7m gross).

INDUSTRY OUTLOOK

Cancer immunotherapy is attracting huge biotech investor interest. Medigene's DC vaccine technology is a new generation, with multiple potential efficacy and manufacturing benefits over the forerunners, eg Provenge. The TCR programme has similarities to CAR-T products, but with potentially significant efficacy and safety advantages.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	6.8	(9.4)	(12.8)	(73.55)	N/A	N/A
2016	9.7	(10.2)	(11.3)	(55.51)	N/A	N/A
2017e	9.0	(17.6)	(18.6)	(88.63)	N/A	N/A
2018e	9.3	(19.5)	(20.2)	(91.11)	N/A	N/A

Sector: Pharma & healthcare

Price:	A$1.38
Market cap:	A$649m
Market	ASX

Share price graph (A$)

Company description

Mesoblast is developing adult stem cell therapies based on its proprietary MPC and culture-expanded MSC platforms. It has six late-stage clinical trials across four areas.

Price performance

%	1m	3m	12m
Actual	(21.0)	(31.7)	14.3
Relative*	(21.3)	(30.9)	5.0

* % Relative to local index

Analyst

Dr Dennis Hulme

Mesoblast (MSB)

INVESTMENT SUMMARY

Mesoblast cleared an interim futility analysis of the Phase III trial of its MPC-150-IM regenerative therapy in heart failure patients in April - over 400 of the target of 600 patients have been enrolled. In December Mesoblast granted Mallinckrodt Pharmaceuticals up to 9 months to exclusively negotiate commercial and development agreements for MPC-06-ID in chronic low back pain (CLBP) and MSC-100-IV in graft vs host disease (GvHD). Both of these products are in pivotal studies: MSC-100-IV has been granted Fast Track designation by the FDA and is due to report results from a Phase III in children with GvHD in Q417; a 360-patient Phase III of MPC-06-ID in CLBP is underway. Partner JCR Pharmaceuticals is marketing Mesoblast's GvHD therapy in Japan following approval in 2015. Cash balance at 30 June of US$46m has since been boosted by a US$40m raise in July. Mesoblast also has access to a US$90m equity finance facility to extend its funding runway.

INDUSTRY OUTLOOK

Mesoblast is the leading mesenchymal stem cell development company, with two platforms (MPCs, MSCs) and nine clinical candidates in Phase II and III. Alliances with JCR and Lonza underpin the key programmes.

Y/E Jun	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (fd) (c)	P/E (x)	P/CF (x)
2015	32.4	(98.0)	(96.2)	(29.99)	N/A	N/A
2016	44.2	(86.3)	(87.4)	(0.20)	N/A	N/A
2017e	5.8	(81.3)	(82.0)	(20.59)	N/A	N/A
2018e	9.0	(80.3)	(81.0)	(18.92)	N/A	N/A

Sector: Pharma & healthcare

Price:	€2.44
Market cap:	€84m
Market	FRA

Share price graph (€)

Company description

Mologen is a German biotech company developing cancer immunotherapies. The lead product is lefitolimod (MGN1703) for metastatic colorectal cancer maintenance, SCLC and HIV. Development of MGN1601, a therapeutic renal cell vaccine, would be reinitiated on successful out-licensing of lefitolimod.

Price performance

%	1m	3m	12m
Actual	(11.2)	(39.0)	76.8
Relative*	(13.9)	(37.8)	46.3

* % Relative to local index

Analyst

Dr Susie Jana

Mologen (MGN)

INVESTMENT SUMMARY

Mologen is developing novel immunotherapies for use in the post-chemo maintenance setting in cancer and for the treatment of infectious diseases. Mologen's efforts are focused on its lead product candidate lefitolimod. IMPALA a 540-pt pivotal study in metastatic colorectal cancer (mCRC) maintenance; recently completed full enrollment. Full data has been presented at ESMO 2017 for the 102-patient Phase II trial (IMPULSE) in small-cell lung cancer (SCLC). Topline results in the Phase I TEACH study to treat HIV (the first non-cancer study for MGN1703) have been announced (failed primary endpoint tracking the size of the viral reservoir). A 60-patient Phase I combination study of lefitolimod with Yervoy in solid tumours is now being conducted by MD Anderson, enrollment has started. Gross cash of €14.2m as of 30th June 2017 should be sufficient to fund Mologen into early 2018.

INDUSTRY OUTLOOK

Results for IMPALA are expected in 2018/19. Final overall survival (OS) data from IMPACT (Phase II in mCRC) and IMPULSE may offer fresh financing/partnering opportunities for lefitolimod before then.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.0	(20.4)	(20.5)	(0.99)	N/A	N/A
2016	0.1	(20.6)	(20.8)	(0.91)	N/A	N/A
2017e	0.0	(21.0)	(21.4)	(0.63)	N/A	N/A
2018e	0.0	(15.5)	(15.9)	(0.47)	N/A	N/A

Sector: Pharma & healthcare

Price:	€65.96
Market cap:	€1935m
Market	FRA

Share price graph (€)

Company description

MorphoSys is a German biotechnology company that uses its proprietary antibody platforms to produce human antibodies for therapeutic use across a range of indications for partners and to develop its own pipeline.

Price performance

%	1m	3m	12m
Actual	14.8	6.7	81.0
Relative*	11.3	8.9	49.8

* % Relative to local index

Analyst

Maxim Jacobs

MorphoSys (MOR)

INVESTMENT SUMMARY

MorphoSys has a broad portfolio with 114 programmes, 29 of those in clinical development, including the proprietary programmes for MOR208, MOR202 and MOR209. MOR208 is an Fc-enhanced antibody targeting CD19, which is being developed for DLBCL and CLL, while MOR202 is an anti-CD38 antibody in Phase I/IIa for multiple myeloma. MOR209, an anti-PSMA/CD3 antibody, is in Phase I trials for prostate cancer. Among the partnered programmes, J&J announced in July the FDA approval of Guselkumab, an anti-IL-23 antibody, for psoriasis. It is the first antibody generated from their proprietary HuCAL antibody technology to receive marketing approval.

INDUSTRY OUTLOOK

The pharmaceutical industry is out-licensing more drug discovery and developing more biological products, both trends that should benefit MorphoSys. Also, there is increasing demand for novel therapies, such as those in MorphoSys's proprietary pipeline.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	106.2	20.7	22.6	64.8	101.8	N/A
2016	49.7	(56.2)	(57.8)	(220.5)	N/A	N/A
2017e	61.5	(63.0)	(62.2)	(146.9)	N/A	N/A
2018e	29.5	(85.8)	(85.1)	(201.7)	N/A	N/A

Sector: Pharma & healthcare

Price:	€18.48
Market cap:	€325m
Market	Euronext Paris

Share price graph (€)

Company description

Nanobiotix is a French nanomedicine company developing NBTXR3 for the treatment of cancer, which interacts with ionizing radiation to locally increase the energy. NBTXR3 is in pivotal clinical development in STS in Europe and is partnered with PharmaEngine in Asia-Pacific.

Price performance

%	1m	3m	12m
Actual	1.4	(9.4)	12.6
Relative*	(0.7)	(9.1)	(6.2)

* % Relative to local index

Analyst

Dr Jonas Peciulis

Nanobiotix (NANO)

INVESTMENT SUMMARY

Nanobiotix has made progress with NBTXR3 as a standalone agent to enhance radiation therapy and now has clinical data from three cancers demonstrating consistent safety, feasibility and transferability of effect across different indications. Nanobiotix has also released first human data demonstrating NBTXR3's ability to enhance the immunogenicity of various cancers, which is the cornerstone idea behind the immuno-oncology (IO) products, i.e. NBTXR3 could efficiently prime an adaptive antitumour immune response, turning "cold" tumors to "hot" tumors. Currently NBTXR3 is being investigated for a total of six indications in seven clinical trials. On 7 April, Nanobiotix completed a private placement totaling to 9.99% of the outstanding prior to the offering and bringing in €25m. We are updating our estimates.

INDUSTRY OUTLOOK

Radiotherapy is a cornerstone cancer treatment used in around 60% of all cancer patients. NBTXR3 with its purely physical mechanism of action is being developed to improve the benefits of current radiotherapy without increasing the risks to surrounding healthy tissues.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	4.0	(16.7)	(17.0)	(120.26)	N/A	N/A
2016	5.4	(21.5)	(21.9)	(146.85)	N/A	N/A
2017e	N/A	N/A	N/A	N/A	N/A	N/A
2018e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pcare & household prd

Price:	41.8p
Market cap:	£29m
Market	AIM

Share price graph (p)

Company description

NetScientific is a transatlantic biomedical and healthcare technology group. Its portfolio of five core investments and one material investment is focused on three main sectors: digital heath (Wanda), diagnostics (Vortex, ProAxsis, Glycotest) and therapeutics (PDS Biotech).

Price performance

%	1m	3m	12m
Actual	1.2	(17.3)	(43.6)
Relative*	2.0	(15.4)	(48.6)

* % Relative to local index

Analyst

Maxim Jacobs

NetScientific (NSCI)

INVESTMENT SUMMARY

NetScientific has a focused portfolio of potentially disruptive biomedical and healthcare technology investments. The last couple of years saw significant strategic changes, including senior management restructuring, bringing a new highly experienced CEO on board, rationalisation of the portfolio and new funding. The current focus is on digital health, diagnostics and therapeutics with the portfolio consisting of four core investments in which it has controlling stakes (Vortex, Wanda, ProAxsis and Glycotest) and one material investment (PDS). The aim is to bring these to commercialisation over the next two years, with the ultimate goal of an exit, realising value for investors.

INDUSTRY OUTLOOK

NetScientific remains focused on sourcing, funding and building early- to mid-stage US and UK companies that are developing potentially breakthrough technologies in growing markets with unmet needs.

Y/E Dec	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2015	0.1	(11.5)	(11.3)	(24.0)	N/A	N/A
2016	0.5	(12.6)	(12.3)	(21.0)	N/A	N/A
2017e	2.7	(13.9)	(14.1)	(18.0)	N/A	N/A
2018e	11.6	(10.1)	(11.6)	(13.0)	N/A	N/A

Sector: Pharma & healthcare

Price: SEK3.89
Market cap: SEK197m
Market NASDAQ OTCQX

Share price graph (SEK)

Company description

NeuroVive Pharmaceutical is a Swedish biopharmaceutical company with deep expertise in mitochondrial medicine. It has a diversified portfolio in terms of indications and employs a dual strategy: it develops a core portfolio of assets for orphan diseases and seeks to out-license proprietary products for non-orphan indications.

Price performance

%	1m	3m	12m
Actual	(17.2)	3.5	(41.5)
Relative*	(18.4)	7.8	(47.9)

* % Relative to local index

Analyst

Dr Jonas Peciulis

NeuroVive Pharmaceutical (NVP)

INVESTMENT SUMMARY

NeuroVive Pharmaceutical is a mitochondrial medicine specialist with a diversified asset portfolio. NeuroVive's core portfolio, which the company aims to develop internally, targets orphan indications: traumatic brain injury (TBI) with NeuroSTAT, various genetic mitochondrial diseases with KL1333 and NVP015, and mitochondrial myopathy with NVP025. Recent R&D news regarding the positive outcome in a Phase IIa study with NeuroSTAT means that the drug candidate is ready for a proof-of-concept study. The second most advanced product KL1333 was in-licensed from Yungjin Pharm in May 2017 and currently is in Phase I. Product portfolio for out-licensing includes NV556 and NVP022 for non-alcoholic steatohepatitis (NASH) and NVP024 for hepatocellular carcinoma (HCC).

INDUSTRY OUTLOOK

NeuroVive has a rather diversified portfolio in terms of indications; however, all the assets are based on improving mitochondrial metabolism and function. This puts NeuroVive among the very few experts in mitochondrial medicine in the industry, in our view. Central to NeuroVive's strategy is maintaining a network of KOLs, academic institutions and research organisations, which help to run innovative design and cost-effective studies.

Y/E Dec	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (öre)	P/E (x)	P/CF (x)
2015	2.5	(89.1)	(89.6)	(300.43)	N/A	N/A
2016	0.0	(69.9)	(70.7)	(172.27)	N/A	N/A
2017e	0.0	(80.2)	(80.0)	(172.19)	N/A	N/A
2018e	0.0	(95.8)	(95.9)	(193.56)	N/A	N/A

Sector: Pharma & healthcare

Price: CHF18.25
Market cap: CHF289m
Market Swiss Stock Exchange

Share price graph (CHF)

Company description

Newron is a CNS-focused biotech. Xadago (partnered with Zambon, US WorldMeds, Meiji Seika, Sequirus) for PD has been launched in Europe. Other pipeline assets include Sarizotan (Phase III for Rett syndrome) and Evenamide (Phase II for schizophrenia).

Price performance

%	1m	3m	12m
Actual	(4.9)	(11.2)	(21.3)
Relative*	(5.4)	(13.4)	(29.2)

* % Relative to local index

Analyst

Dr Susie Jana

Newron Pharmaceuticals (NWRN)

INVESTMENT SUMMARY

Newron's lead product, Xadago (safinamide) for Parkinson's disease (PD) has been launched in 12 European countries and is generating sales through commercial partner Zambon (ex-Japan/Asia). Additionally, Xadago was recently launched in the US by sublicensee US WorldMeds. Other pipeline assets include sarizotan for Rett syndrome, the pivotal trial STARS (placebo-controlled Phase II/III trial) to investigate breathing disorders associated with RS has initiated. Full data from the Phase II study of evenamide as an add-on to atypical antipsychotics, published in March 2017, demonstrated efficacy in terms of improvement on the symptoms of schizophrenia assessed by the Positive and Negative Syndrome Scale (PANSS). Newron raised CHF26.1m in 2016 in a private placement that it expects will help fund operations through 2018.

INDUSTRY OUTLOOK

Parkinson's disease is a growing market. Xadago could have a unique position, with once-a-day dosing and a clean safety profile.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	2.4	(17.6)	(18.3)	(117.21)	N/A	N/A
2016	6.7	(15.3)	(15.2)	(103.69)	N/A	N/A
2017e	15.3	(7.6)	(7.2)	(45.77)	N/A	N/A
2018e	15.6	(4.5)	(3.9)	(24.42)	N/A	N/A

Sector: Pharma & healthcare

Price:	A$0.04
Market cap:	A$19m
Market	ASX

Share price graph (A$)

Company description

Novogen's two main drug technology platforms are super-benzopyrans and anti-tropomyosins. SBP compounds show potent activity against cancer stem cells with potential application in degenerative diseases; ATMS show synergy with anti-mitotics in cancer.

Price performance

%	1m	3m	12m
Actual	(11.1)	(24.5)	(60.0)
Relative*	(11.4)	(23.7)	(63.3)

* % Relative to local index

Analyst

Dr Dennis Hulme

Novogen (NRT)

INVESTMENT SUMMARY

Novogen is developing two groups of anti-cancer compounds, including GDC-0084, a phase II-ready PI3K inhibitor licensed from Genentech that is intended for glioblastoma. The company has transferred the IND from Genentech and is finalising design for a Phase II study expected to start in Q417. Its super-benzopyran drugs include Cantrixil and Trilexium, which are potent against cancer stem cells that are resistant to standard chemotherapy drugs, both in vitro and in vivo. A 60-patient Phase I trial of Cantrixil in ovarian cancer which commenced in December 2016 is expected to report MTD in Q118; while the primary aim is to assess safety and tolerability, radiological responses and biomarkers will be assessed for indications of efficacy. Novogen has terminated development of its preclinical anti-tropomyosin drug Anisina, but has initiated a next-generation anti-tropomyosin drug discovery program supported by an A$3m government grant. The company had A$11.5m cash at June 2017.

INDUSTRY OUTLOOK

Novogen is a biotechnology company listed on the ASX and NASDAQ. Its two main drug technology platforms are super-benzopyrans (SBP) and a PI3K inhibitor. SBP compounds show potent activity against cancer stem cells.

Y/E Jun	Revenue (A$m)	EBITDA (A$m)	PBT (A$m)	EPS (c)	P/E (x)	P/CF (x)
2016	3.7	(10.6)	(11.6)	(2.8)	N/A	N/A
2017	8.6	(10.2)	(10.9)	(2.3)	N/A	N/A
2018e	7.5	(16.0)	(17.3)	(3.6)	N/A	N/A
2019e	17.6	(9.3)	(10.8)	(2.2)	N/A	N/A

Sector: Pharma & healthcare

Price:	SEK15.70
Market cap:	SEK673m
Market	NASDAQ OMX First North

Share price graph (SEK)

Company description

Nuevolution is a Copenhagen-based biopharmaceutical company. Its patent protected Chemetics drug discovery platform enables the selection of drugs to an array of tough-to-drug disease targets. To date it has entered into 17 agreements with major pharmaceutical companies.

Price performance

%	1m	3m	12m
Actual	0.6	(4.3)	57.8
Relative*	(0.8)	(0.3)	40.6

* % Relative to local index

Analyst

Dr Susie Jana

Nuevolution (NUE)

INVESTMENT SUMMARY

Nuevolution's proprietary Chemetics DNA-encoded screening platform technology enables fast and accurate small molecule drug discovery. The technology has received powerful external validation, including three recent collaborations (Amgen, Almirall and Janssen) that could generate significant value in the coming years. In addition, we expect Nuevolution to progress at least one internally generated asset into clinical development in the near future. Net cash of SEK175.2m ($23.5m) (30th June 2017) suggests a cash runway into FY19.

INDUSTRY OUTLOOK

Significant promise is seen in DNA-encoded libraries due to the potential to rapidly develop small molecule drugs to 'tough-to-drug' targets. We continue to see major investment in the space from an array of companies, notably GSK, Roche and Novartis.

Y/E Jun	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (öre)	P/E (x)	P/CF (x)
2015	N/A	N/A	N/A	N/A	N/A	N/A
2016	21.3	N/A	(151.9)	(397.00)	N/A	N/A
2017e	139.4	N/A	15.1	4.00	392.5	N/A
2018e	186.0	N/A	56.4	86.00	18.3	N/A

Sector: Pharma & healthcare

Price:	€2.16
Market cap:	€109m
Market	Euronext Paris

Share price graph (€)

Company description

Onxeo is focused on orphan cancer and has three late-stage orphan oncology assets it could commercialise alone in Europe (Livatag, Beleodaq and Validive). Royalty-earning Beleodaq (belinostat) is launched in the US, along with two non-core, partnered, specialty products.

Price performance

%	1m	3m	12m
Actual	(46.0)	(57.6)	(31.2)
Relative*	(47.1)	(57.5)	(42.7)

* % Relative to local index

Analyst

Dr Jonas Peciulis

Onxeo (ONXEO)

INVESTMENT SUMMARY

Onxeo's Phase III asset Livatag did not meet the primary overall survival endpoint compared to standard of care arm, where survival was unexpectedly high. Onxeo is now analyzing the full data set to decide further steps. On a more positive note Onxeo out-licensed its Phase III ready orphan oncology asset Validive to Monopar Therapeutics for a total deal value of $108m with up to double-digit royalties. Recently, Onxeo's AsiDNA demonstrated first preclinical PoC data showing potential to be administrated intravenously. AsiDNA, a first-in-class DNA repair inhibitor, has already been tested in a Phase I trial in melanoma with promising safety and initial efficacy results. Onxeo aims to file the investigational new drug application by end-2017 and will explore AsiDNA's potential in combination with PARP inhibitors. Onxeo's Beleodaq is already launched in the US with partner Spectrum for r/r peripheral T-cell lymphoma (r/r PTCL), generating royalties for Onxeo.

INDUSTRY OUTLOOK

The patent expiry of blockbuster drugs and increased competition from generics has shifted the focus of the pharmaceutical industry to orphan drugs. Government support, as well as input from the regulatory bodies provide incentives for orphan drug developers.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	3.5	(20.4)	(20.0)	(43.53)	N/A	N/A
2016	4.4	(21.2)	(20.4)	(48.04)	N/A	N/A
2017e	7.9	(21.7)	(21.7)	(46.33)	N/A	N/A
2018e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price:	US$2.33
Market cap:	US$36m
Market	NASDAQ OTCQX

Share price graph (US$)

Company description

Orexigen is a biopharmaceutical company focusing on obesity treatments. It will sell its sole product, Contrave, through its own salesforce in the US after taking back the rights from partner, Takeda. Contrave was launched in the US in Oct 2014 and approved in the EU in March 2015 under the trade name Mysimba.

Price performance

%	1m	3m	12m
Actual	(4.1)	(18.0)	(31.9)
Relative*	(5.3)	(19.9)	(42.0)

* % Relative to local index

Analyst

Maxim Jacobs

Orexigen Therapeutics (OREX)

INVESTMENT SUMMARY

Orexigen's obesity drug, Contrave, is an extended-release oral combination of long-marketed bupropion (Wellbutrin for depression) and Naltrexone (Revia for addiction). Now the leading branded obesity treatment in the US, Orexigen announced the acquisition of US rights to Contrave in the US from partner Takeda in mid-March 2016. The company is now marketing the drug with a new dedicated salesforce of 160 reps with a focus on the consumer. Contrave is approved under the brand Mysimba in most international markets. It has now launched in 17 countries, including South Korea, Spain, Poland, UK and Ireland. Launches in an additional 10-15 countries are expected by Q118.

INDUSTRY OUTLOOK

Orexigen is a biopharmaceutical company focusing on obesity treatments. Contrave was launched in the US in October 2014 and approved in the EU in March 2015, under the trade name Mysimba.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	24.5	(60.3)	(67.3)	(523.81)	N/A	N/A
2016	33.7	(134.6)	(138.1)	(972.82)	N/A	N/A
2017e	94.0	(138.3)	(141.4)	(796.12)	N/A	N/A
2018e	160.3	(68.1)	(72.7)	(467.47)	N/A	N/A

Sector: Pharma & healthcare

Price: SEK33.00
Market cap: SEK1140m
Market NASDAQ OMX Mid Cap

Share price graph (SEK)

Company description

Orexo is a Swedish speciality pharma company, with expertise in drug delivery/reformulation technologies (in particular sublingual formulations) and a US commercial infrastructure for opioid dependence therapy Zubsolv (also filed in Europe). Orexo also has two clinical assets and three preclinical programmes.

Price performance

%	1m	3m	12m
Actual	(5.4)	19.6	(34.3)
Relative*	(6.8)	24.6	(41.5)

* % Relative to local index

Analyst

Dr Susie Jana

Orexo (ORX)

INVESTMENT SUMMARY

Strong Q217 US Zubsolv sales (SEK124.1m +10% vs Q216) and ongoing cost control underpinned a seventh consecutive quarter of positive operating cash flow and a stronger balance sheet (SEK45.7m net debt). FY17 guidance for positive EBITDA and Zubsolv US YOY net revenue growth remained unchanged. IP infringement litigation remains an overhang. The court ruling on the '996 Zubsolv patent precludes Actavis generic launch before September 2019; Orexo has filed a separate '996 US IP infringement suit against Actavis for their Suboxone/Subutex generics. Zubsolv's IP portfolio includes patents extending to 2032 ('900 and '421) which with an appeal outcome on the invalidity of '330 expected around end-2017, represent significant hurdles ahead of generic launch. The CHMP of the European Medicines Agency (EMA) issued in September a positive opinion for Zubsolv (buprenorphine and naloxone sublingual tablet) for use in the treatment of opioid dependence; final decision for approval is expected in Q417.

INDUSTRY OUTLOOK

Opioid dependence diagnosis/treatment rates are low due to social stigma, limited access to therapy in parts of the US and affordability. Competition includes Suboxone film (Indivior), Bunavail (BDSI) and six generic bup/nal tablets.

Y/E Dec	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (öre)	P/E (x)	P/CF (x)
2015	646.2	(99.9)	(203.6)	(607.0)	N/A	N/A
2016	705.9	76.7	35.6	84.0	39.3	6.2
2017e	688.0	87.8	43.4	72.0	45.8	5.6
2018e	729.1	117.6	93.1	216.0	15.3	7.1

Sector: Pharma & healthcare

Price: €2.06
Market cap: €70m
Market Madrid Stock Exchange

Share price graph (€)

Company description

Oryzon is a Spanish biotechnology company focused on developing novel epigenetic compounds. Lead compound ORY-1001 is partnered with Roche and is undergoing a Phase I/IIa study for acute leukaemia. ORY-2001 has potential for Alzheimer's disease and has been approved to enter Phase I.

Price performance

%	1m	3m	12m
Actual	(8.0)	(28.9)	(27.7)
Relative*	(7.1)	(26.1)	(39.3)

* % Relative to local index

Analyst

Dr Jonas Peciulis

Oryzon Genomics (ORY)

INVESTMENT SUMMARY

Oryzon's expertise lies in developing small molecule inhibitors for epigenetic targets. The lead product ORY-1001 is a first-in-class inhibitor of lysine specific demethylase 1 (LSD1) with positive data from the Phase I/IIa in acute leukemia announced in December 2016. Oryzon's former partner Roche has also initiated a Phase I trial with ORY-1001 in small cell lung cancer. Oryzon is now continuing the development of ORY-1001 in both indications. Oryzon's second product, ORY-2001, targets Alzheimer's disease (AD) and reported supportive Phase I data in early April. Preclinical data also support its use in multiple sclerosis and other neurodegenerative indications. ORY-3001 has been recently revealed as the third product to enter pre-clinical development in non-oncological indications. Cash position was €37.5m at end Q217.

INDUSTRY OUTLOOK

Epigenetics is a relatively young field in terms of drug development. HDACs were among the first epigenetic therapeutics brought to market, and although effective, they have side effects. Oryzon is among the leading clinical stage drug developers with a second generation of epigenetic therapeutics, which have greater selectivity and are expected to show a favourable safety/efficacy profile.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	7.2	0.7	(0.1)	(0.57)	N/A	47.3
2016	5.0	(3.7)	(4.7)	(17.02)	N/A	N/A
2017e	4.4	(5.0)	(6.4)	(20.40)	N/A	N/A
2018e	7.9	(9.7)	(11.0)	(32.18)	N/A	N/A

Sector: Pharma & healthcare

Price:	8.0p
Market cap:	£249m
Market	LSE

Share price graph (p)

Company description

Oxford BioMedica is a leader in gene and cell therapy. The lentivector technology is wide ranging, covering in vivo and ex vivo vector products. The technology underpins the proprietary clinical development pipeline in addition to third party manufacturing contracts which add validation to the platform.

Price performance

%	1m	3m	12m
Actual	(9.5)	49.3	110.2
Relative*	(8.8)	52.7	91.5

* % Relative to local index

Analyst

Dr Susie Jana

Oxford BioMedica (OXB)

INVESTMENT SUMMARY

We expect OXB's strategic vision to come to further fruition through 2017/18. Novartis's CAR-T Kymriah (OXB provide the lentiviral vector) is now approved (in pediatric ALL) by the FDA with approvals in Europe and in DLBCL expected in the near future. OXB should now start earning royalties and substantial manufacturing fees from Kymriah. The possible spin-out/out-licensing of its priority development pipeline assets is ongoing (OXB-102, OXB-202, and OXB-302). As of 31st July, OXB have £22.1m in cash.

INDUSTRY OUTLOOK

Cell- and gene-therapy is the focus of much industry attention as it can dramatically alter the outcomes of many diseases. The proprietary lentivector platform is a flexible and efficient system that is promising in many indications.

Y/E Dec	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2015	15.9	(12.5)	(16.6)	(0.49)	N/A	N/A
2016	27.8	(7.6)	(20.0)	(0.59)	N/A	N/A
2017e	40.4	2.4	(5.4)	(0.04)	N/A	22.4
2018e	47.2	10.5	2.9	0.22	36.4	39.2

Sector: Pharma & healthcare

Price:	NZ$0.48
Market cap:	NZ$190m
Market	NZSX

Share price graph (NZ$)

Company description

Pacific Edge develops and sells a portfolio of molecular diagnostic tests based on biomarkers for the early detection and management of cancer. Tests utilising its Cxbladder technology for detecting and monitoring bladder cancer are sold in the US, New Zealand and Australia.

Price performance

%	1m	3m	12m
Actual	1.1	(2.1)	(3.1)
Relative*	1.0	(5.5)	(6.9)

* % Relative to local index

Analyst

Maxim Jacobs

Pacific Edge (PEB)

INVESTMENT SUMMARY

Pacific Edge develops and sells a portfolio of molecular diagnostic tests based on biomarkers for the early detection and management of cancer. Tests utilising its Cxbladder technology for detecting and monitoring bladder cancer are sold in the US, New Zealand and Australia. The company announced the signing of a Federal Supply Schedule to the Veterans Administration, allowing the marketing of Cxbladder tests within the organization - the largest integrated healthcare system in the US. The company has also signed an agreement recently with Tricare, which handles the healthcare for all uniformed service members and their families. The company also announced positive data from a user programme with Kaiser Permanente Southern California, which could lead to a commercial agreement with that group.

INDUSTRY OUTLOOK

Molecular diagnostics is a growing, but increasingly competitive field. Lead time from the initiation of user programmes to payment can be long.

Y/E Mar	Revenue (NZ$m)	EBITDA (NZ$m)	PBT (NZ$m)	EPS (c)	P/E (x)	P/CF (x)
2016	6.4	(14.9)	(15.5)	(4.1)	N/A	N/A
2017	9.3	(19.6)	(20.8)	(5.4)	N/A	N/A
2018e	18.5	(8.2)	(9.2)	(2.3)	N/A	N/A
2019e	41.8	12.3	11.2	1.9	25.3	13.5

Sector: Pharma & healthcare

Price:	€2.82
Market cap:	€172m
Market	FRA

Share price graph (€)

Company description

PAION is an emerging specialty pharma company developing anaesthesia products. Its lead product, remimazolam, is partnered with Yichang in China, Hana Pharma in S Korea, Cosmo in the US, Pendopharm in Canada and R-Pharm in CIS, Turkey and MENA.

Price performance

%	1m	3m	12m
Actual	(1.9)	4.6	28.8
Relative*	(4.8)	6.9	6.6

* % Relative to local index

Analyst

Dr Dennis Hulme

Paion (PA8)

INVESTMENT SUMMARY

Paion announced positive top-line results from a Phase III trial of remimazolam for procedural sedation in bronchoscopy in June, adding to the positive results of a Phase III colonoscopy trial. It is currently conducting Phase I studies to assess abuse potential as the final step of its US clinical development program. In the bronchoscopy trial 82.5% of patients on remimazolam achieved the primary outcome vs 3.4% on placebo and 34.8% on midazolam. While replacing midazolam as the primary target, planned changes in the US reimbursement of day procedures favouring less supervision by anaesthetists could further incentivise uptake of remimazolam. €27.1m cash at 30 June plus €8m placement in July is sufficient to complete ongoing development and to file for procedural sedation in the US (filing by partner Cosmo expected H218), as well as a Japanese filing for remimazolam in general anaesthesia (GA) by Paion (expected by mid-2018). Paion has outlined a €20-25m programme that could see it restart Phase III studies in GA in Europe.

INDUSTRY OUTLOOK

Remimazolam has important advantages over competing products, including fast onset and offset of action with lower risk of cardiopulmonary events than the standard of care midazolam and propofol, and a reversal agent exists if there is over sedation.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.1	(34.1)	(34.0)	(55.7)	N/A	N/A
2016	4.3	(24.3)	(24.3)	(36.4)	N/A	N/A
2017e	5.9	(16.4)	(16.4)	(21.2)	N/A	N/A
2018e	3.5	(13.0)	(12.9)	(17.7)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$3.23
Market cap:	US$498m
Market	NASDAQ

Share price graph (US$)

Company description

PDL has reinvented itself through a three-pronged strategy: investing in royalty streams of marketed and development-stage therapeutics and providing high-yield debt financing to device & diagnostic companies with near-term product launches.

Price performance

%	1m	3m	12m
Actual	15.8	38.0	4.9
Relative*	14.4	34.8	(10.7)

* % Relative to local index

Analyst

Maxim Jacobs

PDL BioPharma (PDLI)

INVESTMENT SUMMARY

PDL BioPharma is reinventing itself as a healthcare-focused finance company through a three-pronged strategy: investing in royalty streams, providing high-yield financing to life science companies with near-term product launches as well as through the purchase of approved drugs to be sold by Noden Pharma (which is currently a wholly owned subsidiary) on a high margin basis. This strategy allows investors to gain exposure in healthcare through a relatively low-risk, diversified vehicle.

INDUSTRY OUTLOOK

PDL BioPharma is one of the only companies that will give broad exposure to diverse royalty streams as well as corporate debt and high margin approved products.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	590.4	550.4	530.1	203.69	1.6	1.8
2016	244.3	193.1	175.5	77.72	4.2	5.2
2017e	264.2	176.8	157.9	59.33	5.4	8.5
2018e	122.2	37.3	19.9	13.58	23.8	N/A

Sector: Pharma & healthcare

Price: €3.62
Market cap: €805m
Market Madrid Stock Exchange

Share price graph (€)

Company description

PharmaMar is a Spanish biopharmaceutical group with a core focus on the development of marine-based drugs for cancer. Yondelis is approved in the EU and US, and partnered with Janssen (J&J) in the US and Taiho in Japan.

Price performance

%	1m	3m	12m
Actual	(2.6)	(8.0)	30.2
Relative*	(1.6)	(4.3)	9.3

* % Relative to local index

Analyst

Maxim Jacobs

PharmaMar (PHM)

INVESTMENT SUMMARY

PharmaMar has built a pipeline of first-in-class cancer drugs for development with strategic partners. Royalty income from Yondelis for soft tissue sarcoma in Japan and the US should drive strong profit growth from 2017. Aplidin could potentially be approved for multiple myeloma in Europe by the end of the year. Top-line data from the Zepsyre (aka lurbinectedin and PM1183) Phase III in platinum-resistant ovarian cancer is due by early 2018. A second pivotal study is evaluating lurbinectedin in combination with doxorubicin in patients with small cell lung cancer. A Phase III in BRCA2-mutated breast cancer is planned for 2017, and pivotal studies in endometrial cancer have been flagged following a 44% response rate in Phase I.

INDUSTRY OUTLOOK

PharmaMar's oncology portfolio has been validated through multiple global partnerships, eg J&J in the US and Taiho in Japan (for Yondelis) and Chugai in certain EU countries (for Aplidin).

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	162.0	17.6	5.9	3.0	120.7	78.9
2016	164.0	(11.5)	(24.7)	(10.8)	N/A	N/A
2017e	174.0	15.7	3.6	1.6	226.3	46.9
2018e	192.7	17.7	5.5	2.5	144.8	228.0

Sector: Pharma & healthcare

Price: NOK24.00
Market cap: NOK517m
Market Oslo

Share price graph (NOK)

Company description

Photocure specialises in photodynamic therapy. Its bladder cancer imaging product is sold as Hexvix in Europe and Cysview in the US. Photocure handles the marketing in Nordic countries and the US, while Ipsen is its marketing partner in the EU.

Price performance

%	1m	3m	12m
Actual	2.6	(5.9)	(38.0)
Relative*	(1.5)	(13.3)	(50.3)

* % Relative to local index

Analyst

Maxim Jacobs

Photocure (PHO)

INVESTMENT SUMMARY

Photocure specialises in photodynamic therapy. Its bladder cancer imaging product (known as Hexvix in Europe and Cysview in the US) improves detection rates and helps prolong recurrence-free survival. The company recently announced positive Phase III data in the surveillance setting which may vastly increase their addressable market size as well as a new CMS draft rule which could increase reimbursement in the United States. Cevira is a Phase III-ready product for HPV-related diseases of the cervix and Visonac is a Phase III-ready product for acne. Photocure recently announced that the search for partners for Cevira and Visonac is expanded to include outright sale of those products, possible spinoffs or other strategic alternatives.

INDUSTRY OUTLOOK

Photocure is a photodynamic therapy company focused on bladder cancer imaging, HPV-related diseases and acne. As its products typically are a combination of a drug and a device, hurdles for generics are typically higher than with other therapeutics.

Y/E Dec	Revenue (NOKm)	EBITDA (NOKm)	PBT (NOKm)	EPS (öre)	P/E (x)	P/CF (x)
2015	134.7	(18.1)	(17.4)	(82.0)	N/A	N/A
2016	143.6	(8.0)	12.8	59.0	40.7	26.9
2017e	149.4	(38.9)	(44.9)	(208.0)	N/A	N/A
2018e	242.5	9.0	5.0	23.0	104.3	259.5

Sector: Pharma & healthcare

Price:	€5.45
Market cap:	€72m
Market	Euronext Paris

Share price graph (€)

Company description

Pixium Vision develops retinal implants for patients with severe vision loss. Its lead product Iris is an epi-retinal implant, which received CE mark approval in 2016; a sub-retinal implant (Prima) is expected to start a human study in 2017 .

Price performance

%	1m	3m	12m
Actual	0.6	(14.3)	(20.4)
Relative*	(1.5)	(14.1)	(33.7)

* % Relative to local index

Analyst

Pooya Hemami

Pixium Vision (PIX)

INVESTMENT SUMMARY

Pixium Vision is developing two different retinal implant systems that transform images into electrical signals to elicit visual perception in patients with severe retinal disease. The devices consist of an implant and a pair of glasses with an embedded camera, and handheld control. Pixium received CE Mark approval for the Iris II epiretinal implant in July 2016. It is also conducting EU clinical trials with Iris II (10th and final implantation of the study completed in early 2017). Interim study data should assist reimbursement applications in EU markets. Positive pre-clinical data with Prima, a subretinal implant potentially providing better visual acuity than Iris II, should support first human testing in H217. Pixium held €14.9m in gross cash at 30 June 2017 and has up to €3m available in additional debt financing available.

INDUSTRY OUTLOOK

Second Sight (EYES) is commercialising an epiretinal implant (Argus II) in the US and EU. The Iris II offers 150 electrodes (vs 60 on Argus II), potentially offering better vision, while also being the first potentially explantable (and upgradable) epiretinal implant. Prima is less surgically invasive and could potentially be a viable treatment option for macular degeneration patients.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	3.3	(14.6)	(15.6)	(122.88)	N/A	N/A
2016	2.5	(11.4)	(12.4)	(97.60)	N/A	N/A
2017e	3.8	(10.8)	(12.6)	(95.23)	N/A	N/A
2018e	14.9	(13.6)	(17.9)	(132.86)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$4.68
Market cap:	US$457m
Market	NASDAQ, TASE

Share price graph (US$)

Company description

Pluristem is a biotech company, headquartered in Israel, focused on the development of cell-based therapeutics derived from placenta. The company is advancing PLX-PAD for critical limb ischemia (CLI) with a Phase III study on hip fracture. PLX-R18 is being advanced for acute radiation syndrome and hematopoietic cell transplant.

Price performance

%	1m	3m	12m
Actual	16.2	(0.6)	(25.3)
Relative*	13.8	0.0	(27.0)

* % Relative to local index

Analyst

Maxim Jacobs

Pluristem Therapeutics (PSTI)

INVESTMENT SUMMARY

Pluristem Therapeutics is developing allogenic cell therapies derived from donated placental tissue. The lead program, PLX-PAD is in Phase III for critical limb ischemia (CLI). Based on feedback from both the FDA and EMA, a single pivotal 250-patient study will be required for approval. The company also recently reported data from its study of PLX-R18 for the treatment of acute radiation syndrome (ARS) in which the product compared favorably to Neupogen and showed a benign safety profile.

INDUSTRY OUTLOOK

Pluristem has been investigating the potential therapeutic benefit of cells derived from the placenta which offers a rich supply of cells of multiple lineages from tissue that would otherwise be medical waste. Although these cells are not stem cells and lack the immortality and pluripotency to meet that definition, they secrete a wide array of cytokines and growth factors and can exert a potent influence on the function of other cells in the body.

Y/E Jun	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.4	(27.3)	(24.7)	(35.11)	N/A	N/A
2016	2.8	(25.5)	(23.2)	(29.22)	N/A	N/A
2017e	0.0	(31.5)	(28.9)	(33.10)	N/A	N/A
2018e	0.0	(41.2)	(41.5)	(41.79)	N/A	N/A

Sector: Pharma & healthcare

Price:	A$0.02
Market cap:	A$50m
Market	ASX

Share price graph (A$)

Company description

Prima's pipeline is based on three products using a LAG-3 immune control system: IMP321 for cancer chemo-immunotherapy and partnered products IMP731 (GSK) and IMP701 (Novartis). Ph II asset CVac is an autologous dendritic cell vaccine.

Price performance

%	1m	3m	12m
Actual	0.0	(32.3)	(44.7)
Relative*	(0.3)	(31.5)	(49.2)

* % Relative to local index

Analyst

Dr Dennis Hulme

Prima BioMed Ltd (PRR)

INVESTMENT SUMMARY

Prima BioMed has three promising clinical assets based on a versatile immunotherapy target Lymphocyte activation gene-3, LAG-3 (one partnered with GSK and a second partnered with Novartis). The lead in-house LAG-3 product, IMP321, is being developed initially in metastatic breast cancer in combination with chemotherapy (recruitment underway in 226-patient randomised Phase IIb, a 47% response rate was reported from the 15-patient dose-escalation phase) and in melanoma in combination with the anti-PD1 checkpoint inhibitor Keytruda (Phase I currently recruiting 3rd and final cohort). Novartis and GSK are progressing clinical trials of partnered LAG-3 programmes, providing additional validation for the technology. Prima's pipeline also includes IMP761, a first-in-class LAG-3 agonist antibody in preclinical development which could potentially help treat autoimmune diseases.

INDUSTRY OUTLOOK

Immunotherapies are among the most promising class of products for cancer and autoimmune diseases. The LAG-3 products are potentially first-in-class, each with distinct mechanisms and applications.

Y/E Jun	Revenue (A$m)	EBITDA (A$m)	PBT (A$m)	EPS (c)	P/E (x)	P/CF (x)
2015	1.3	(13.3)	(12.9)	(0.9)	N/A	N/A
2016	1.9	(12.1)	(13.7)	(0.6)	N/A	N/A
2017e	1.3	(13.1)	(12.7)	(0.6)	N/A	N/A
2018e	10.6	(4.3)	(4.0)	(0.2)	N/A	N/A

Sector: Pharma & healthcare

Price:	€13.90
Market cap:	€114m
Market	Euronext Amsterdam

Share price graph (€)

Company description

Probiodrug is a biopharma company developing its clinical pipeline for the treatment of Alzheimer's. Lead product candidate, PQ912, has entered Ph IIa. PQ912 is a small molecule inhibitor of QC, which is essential for the formation of pGlu-Abeta. Two further products are in preclinical stages.

Price performance

%	1m	3m	12m
Actual	(6.8)	(20.8)	(29.3)
Relative*	(8.3)	(22.0)	(41.1)

* % Relative to local index

Analyst

Dr Jonas Peciulis

Probiodrug (PBD)

INVESTMENT SUMMARY

Probiodrug is developing a clinical pipeline focusing on the novel target of pGlu-Abeta, a toxic variant of amyloid-beta (Abeta) that has been implicated in the initiation and sustainment of the pathological cascade that leads to Alzheimer's disease (AD). Lead candidate PQ912 is an inhibitor of the enzyme glutaminyl cyclase, which is essential for the formation of pGlu-Abeta. Initial results from the Phase IIa study, SAPHIR, study were reported on 12 June. While primarily safety/tolerability study, several secondary endpoints especially piqued our interest, with CSF biomarker, EEG and a couple of cognitive tests pointing to a positive overall picture of the dataset. Recently new preclinical data also showed that PQ912 demonstrated efficacy in Huntington's disease in an animal model. Subject to further preclinical work, PQ912 could be fast-tracked to the clinic, which would diversify Probiodrug's R&D pipeline with a new indication.

INDUSTRY OUTLOOK

There are 44m dementia sufferers worldwide, 60% of whom have AD. The lack of disease-modifying therapies leaves a vast unmet clinical need. This, combined with increasing understanding of the disease process and the development of biomarkers, has led to increased optimism that a disease-modifying therapy may be found.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.0	(13.3)	(13.5)	(196.10)	N/A	N/A
2016	0.0	(13.7)	(13.8)	(181.30)	N/A	N/A
2017e	0.0	(10.5)	(10.5)	(128.47)	N/A	N/A
2018e	0.0	(8.6)	(8.7)	(105.76)	N/A	N/A

Sector: Pharma & healthcare

Price:	€2.97
Market cap:	€33m
Market	Alternext Paris

Share price graph (€)

Company description

Quantum Genomics is a biopharmaceutical company developing QGC001, a brain aminopeptidase A inhibitor for the treatment of hypertension and heart failure. Its mechanism is implicated in the 25% of patients resistant to treatment.

Price performance

%	1m	3m	12m
Actual	(6.3)	(61.2)	(48.0)
Relative*	(8.3)	(61.1)	(56.7)

* % Relative to local index

Analyst

Maxim Jacobs

Quantum Genomics (ALQGC)

INVESTMENT SUMMARY

Quantum Genomics is a biopharmaceutical company investigating brain aminopeptidase A inhibitors, a new class of drug, for the treatment of hypertension and heart failure. They recently announced the results from their 34-patient Phase IIa study of QGC001 for the treatment of mild to moderate arterial hypertension. It showed a 2.7 mmHg placebo-adjusted reduction in ambulatory systolic blood pressure (SBP) and a 4.7 mmHg reduction in in-office SBP. A Phase IIb trial is expected to begin in H217. Data in heart failure is expected in H118.

INDUSTRY OUTLOOK

The angiotensin pathway is one of the primary methods of modulating blood pressure and it is the target of some of the most successful anti-hypertensive drugs: angiotensin converting enzyme (ACE) inhibitors, and angiotensin receptor blockers (ARBs). However, there is a parallel pathway in the brain responsible for the secretion of vasopressin and heart rate that is unaddressed by these classes of drug and that is being targeted by Quantum Genomics.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.1	(4.3)	(4.5)	(54.70)	N/A	N/A
2016	0.0	(6.2)	(6.2)	(59.79)	N/A	N/A
2017e	0.0	(7.2)	(7.2)	(68.62)	N/A	N/A
2018e	0.0	(10.9)	(12.5)	(115.39)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$8.55
Market cap:	US$146m
Market	NASDAQ, TASE

Share price graph (US$)

Company description

RedHill Biopharma is a specialty pharma company with a broad R&D pipeline focusing on gastrointestinal and inflammatory diseases and also promotes three GI products in the US. The most advanced programs are TALICIA (RHB-105) for H. pylori infection, RHB-104 for Crohn's disease and NTM infections and Bekinda for gastroenteritis and IBS-D.

Price performance

%	1m	3m	12m
Actual	0.5	(8.3)	(42.5)
Relative*	(0.7)	(10.4)	(51.0)

* % Relative to local index

Analyst

Dr Jonas Peciulis

RedHill Biopharma (RDHL)

INVESTMENT SUMMARY

RedHill has a broad R&D pipeline, but is focusing on GI and inflammatory diseases. The most advanced assets are TALICIA (RHB-105) for H. pylori infection (confirmatory Phase III study ongoing); RHB-104 for Crohn's disease (the first Phase III trial ongoing), nontuberculous mycobacteria infections (pivotal Phase III trial to start in Q118) and r/r multiple sclerosis (promising Phase IIa data in Q416); and BEKINDA for both gastroenteritis (successful top-line Phase III results announced in June 2017) and diarrhoea-predominant IBS (top line Phase II results expected in September 2017). RedHill is building a commercial business in the US and has initiated promotion of GI products Donnatal and EnteraGam in Q217 with initial sales of $483k booked in the last two weeks of June; the promotion of Esomeprazole Strontium DR Capsules 49.3mg was also initiated in September.

INDUSTRY OUTLOOK

RedHill's main focus on GI and inflammation include a range of conditions, which although can be treated with a variety of innovative and established products, there is still an unmet need in each of the diseases. In our view, carefully positioned, innovative solutions for the patients will attract attention.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.0	(21.9)	(21.1)	(19.03)	N/A	N/A
2016	0.1	(30.5)	(29.4)	(22.85)	N/A	N/A
2017e	15.0	(41.4)	(41.4)	(24.39)	N/A	N/A
2018e	30.0	(32.2)	(32.5)	(18.90)	N/A	N/A

Sector: Pharma & healthcare

Price:	A$0.12
Market cap:	A$25m
Market	ASX

Share price graph (A$)

Company description

Regeneus is a clinical-stage regenerative medicine company developing innovative cell-based therapies for the human & animal health markets.

Price performance

%	1m	3m	12m
Actual	0.0	(7.7)	(14.3)
Relative*	(0.3)	(6.7)	(21.3)

* % Relative to local index

Analyst

Dr Dennis Hulme

Regeneus (RGS)

INVESTMENT SUMMARY

Regeneus is developing its mesenchymal stem cell technology for musculoskeletal conditions in humans (Progenza) and animals (CryoShot). In December 2016 Regeneus entered a US$16.5m collaboration with AGC Asahi Glass (AGC) for manufacture of Progenza cells for the Japanese market. Regeneus and AGC have formed a 50:50 JV for clinical development and commercialisation of Progenza in Japan – we expect the JV to sub-license one or more partners to undertake clinical trials in a number of indications. Japanese legislation offers an accelerated path to market for regenerative medicines. Progenza therapy led to meaningful reductions in osteoarthritis knee pain in Phase I. Regeneus holds global rights to autologous cancer vaccine technologies for human (RGSH4K, in Phase I) and veterinary (Kvax) applications. It was awarded a US patent in July for its Sygenus topical secretions technology, which is currently in preclinical studies.

INDUSTRY OUTLOOK

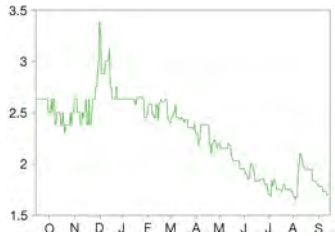
Regeneus' strategy is to focus on early-stage product development, then partner. In addition to the AGC deal for Progenza in Japan, it has partnered with a global animal health company for CryoShot Canine. It will seek to identify wider applications of Progenza, beyond osteoarthritis.

Y/E Jun	Revenue (A$m)	EBITDA (A$m)	PBT (A$m)	EPS (c)	P/E (x)	P/CF (x)
2016	1.7	(3.4)	(3.6)	(1.70)	N/A	N/A
2017	10.0	4.9	3.3	1.57	7.6	7.0
2018e	7.8	2.1	1.9	0.89	13.5	7.7
2019e	1.2	(4.2)	(4.4)	(2.08)	N/A	N/A

Sector: Pharma & healthcare

Price:	1.7p
Market cap:	£54m
Market	LSE

Share price graph (p)



Company description

ReNeuron is a UK biotech company developing allogeneic cell therapies: CTX neural stem cell products for stroke disability (Phase IIa) and critical limb ischaemia (Phase I); and human retinal progenitor cells for retinitis pigmentosa (Phase I/II).

Price performance

%	1m	3m	12m
Actual	(12.8)	(6.9)	(35.2)
Relative*	(12.1)	(4.7)	(41.0)

* % Relative to local index

Analyst

Dr Linda Pomeroy

ReNeuron Group (RENE)

INVESTMENT SUMMARY

ReNeuron is funded (£60m H117) to undertake pivotal studies with two cell therapy-based programmes. This includes the CTX neural stem cell programme (recently announced a positive end of Phase II meeting with the FDA and intends to go for SPA/RMAT designation for stroke at Phase III) and hRPC (human retinal progenitor cells) programme for retinitis pigmentosa (currently in Phase I/II). Also be commencing a Phase II trial in cone-rod dystrophy. ReNeuron also has promising early data for its exosome nanomedicine platform in oncology. The company is constructing a GMP cell manufacturing and research facility.

INDUSTRY OUTLOOK

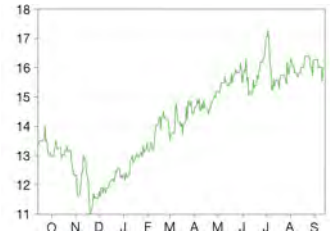
Limited drug development has targeted chronic stroke to date, which is the area in which ReNeuron is attempting to demonstrate a meaningful reduction in disability. If shown, it would offer a compelling case for further development and/or partnering. Initial three month follow-up data from its Phase IIa stroke study was sufficiently strong to progress to a pivotal controlled Phase III clinical study in early 2018. The hRPC programme (Orphan (EU/US) and Fast Track (US) designation) is generating Phase II data in a larger cohort of patients in 2018, with read-outs in 2019.

Y/E Mar	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2016	0.0	(13.6)	(12.8)	(0.44)	N/A	N/A
2017	0.0	(19.7)	(18.2)	(0.49)	N/A	N/A
2018e	0.0	(32.6)	(32.3)	(0.96)	N/A	N/A
2019e	0.0	(34.0)	(34.5)	(1.03)	N/A	N/A

Sector: Pharma & healthcare

Price: €16.00
Market cap: €800m
Market Madrid Stock Exchange

Share price graph (€)



Company description

Laboratorios Farmacéuticos ROVI is a fully integrated Spanish speciality pharmaceutical company involved in the development, in-licensing, manufacture and marketing of small molecule and speciality biologic drugs with a particular expertise in low molecular weight heparin (LMWH).

Price performance

%	1m	3m	12m
Actual	0.0	2.8	19.4
Relative*	1.0	6.9	0.3

* % Relative to local index

Analyst

Dr Susie Jana

ROVI Laboratorios Farmaceuticos (ROVI)

INVESTMENT SUMMARY

ROVI, a profitable, speciality healthcare company, markets ~30 proprietary and in-licensed products across nine core franchises mainly in its domestic Spanish market. ROVI is at a major inflection point; its internally developed biosimilar enoxaparin is the first to launch in key European markets (marketing initiated in Germany in September), transforming the sales growth and operating margins of the business. Other top-line drivers include further product in-licensing and the potential launch (2021) of Risperidone-ISM (schizophrenia).

INDUSTRY OUTLOOK

ROVI has a strong presence in the Spanish heparin market (and select international markets through partners), where it has been manufacturing and marketing its flagship product Hibor (second-generation LMWH) since 1998.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	246.0	31.8	22.9	43.99	36.4	34.4
2016	265.2	39.3	30.3	58.11	27.5	27.0
2017e	277.3	28.7	19.6	36.87	43.4	17.4
2018e	305.4	40.7	31.1	58.16	27.5	34.8

Sector: Pharma & healthcare

Price: 48.27PLN
Market cap: PLN665m
Market Warsaw Stock Exchange

Share price graph (PLN)

Company description

Selvita is an R&D and drug discovery services company. It employs 352 staff (30% PhDs) and operates two main business units: Innovations Platform (internal NME pipeline) and Research Services (medicinal chemistry/biology, biochemistry).

Price performance

%	1m	3m	12m
Actual	(5.4)	(28.0)	101.1
Relative*	(10.3)	(34.0)	39.3

* % Relative to local index

Analyst

Dr Jonas Peciulis

Selvita (SLV)

INVESTMENT SUMMARY

Selvita is an R&D and drug discovery services company. In H117 sales jumped by 109% y-o-y reflecting strong organic growth and an upfront payment from the partnering deal with Berlin Chemie/Menarini. SEL24's out-licensing to Menarini in March 2017 was the first deal for a proprietary clinical-stage asset and the total potential value of the deal was €89.1m. SEL24 is dual PIM/FLT3 inhibitor in Phase I/II for AML and the first such compound to progress to Phase I/II, to our knowledge. Selvita's second lead product SEL120 is a CDK8 inhibitor, partnered with the Leukemia & Lymphoma Society for AML and is undergoing IND-enabling studies. Multiple collaborations signed with partners such as Merck KGaA, H3 Biomedicine (Eisai) and joint venture with Epidarex Capital to form Nodthera validate Selvita's research capabilities. Cash position was PLN38m as of 11 September 2017. We are updating our estimates.

INDUSTRY OUTLOOK

The profiles of SEL24 and SEL120 are potentially unique when compared to existing clinical-stage competitors and both candidates may offer efficacy and safety advantages. Contract research is a fiercely competitive, but still rapidly growing market and we believe Selvita's geographical location and lower cost benefits make it well placed to compete.

Y/E Dec	Revenue (PLNm)	EBITDA (PLNm)	PBT (PLNm)	EPS (gr)	P/E (x)	P/CF (x)
2015	56.1	10.2	7.6	83.58	57.8	N/A
2016	66.7	8.3	4.6	64.22	75.2	N/A
2017e	N/A	N/A	N/A	N/A	N/A	N/A
2018e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price:	US$2.21
Market cap:	US$52m
Market	NASDAQ

Share price graph (US$)

Company description

Sunesis Pharmaceuticals is a pharmaceutical company focused on oncology. The company has developed SNS-062, a BTK inhibitor for CLL for Imbruvica refractory patients currently in Phase I/II.

Price performance

%	1m	3m	12m
Actual	(8.3)	(25.3)	(50.7)
Relative*	(9.4)	(27.1)	(58.0)

* % Relative to local index

Analyst

Maxim Jacobs

Sunesis Pharmaceuticals (SNSS)

INVESTMENT SUMMARY

Sunesis is a pharmaceutical company developing small molecule oncology drugs. Its lead program is SNS-062, a novel non-covalent, oral BTK inhibitor that may work in Imbruvica relapsed and refractory patients. Data from a Phase Ia study in healthy volunteers was recently presented and indicated an attractive PK/PD profile with twice a day dosing. The drug is in a Phase Ib/II dose escalation/expansion trial targeting completion by September 2018. The trial will enroll up to seven dose cohorts and up to 124 patients with confirmed Imbruvica resistance mutations.

INDUSTRY OUTLOOK

Sunesis is an oncology company with an early stage asset with a validated target targeting patients that are in B-cell malignancies.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	3.1	(35.8)	(36.7)	(301.72)	N/A	N/A
2016	2.5	(36.3)	(38.0)	(242.37)	N/A	N/A
2017e	0.7	(32.8)	(33.8)	(157.71)	N/A	N/A
2018e	0.0	(33.1)	(35.5)	(158.75)	N/A	N/A

Sector: Pharma & healthcare

Price:	¥227.00
Market cap:	¥11120m
Market	Tokyo

Share price graph (¥)

Company description

SymBio is a Japanese specialty pharma company with a focus on oncology, haematology and pain management. Treakisym was in-licensed from Astellas in 2005. Rigosertib was in-licensed from Onconova and IONSYS was in-licensed from The Medicines Company.

Price performance

%	1m	3m	12m
Actual	0.4	(9.9)	(8.5)
Relative*	(1.6)	(12.2)	(26.3)

* % Relative to local index

Analyst

Dr Dennis Hulme

SymBio Pharmaceuticals (4582)

INVESTMENT SUMMARY

SymBio is well on the way to becoming a key speciality pharma partner for Asia-Pacific markets. The company has in-licensing deals for two orphan blood cancer products and a pain management device (IONSYS). Treakisym is approved for r/r low grade NHL/MCL and during 2016 received approvals in CLL and first-line low grade NHL/MCL; these recent approvals could more than double current sales (JPY4.7bn in 2016). In August SymBio initiated a Phase III trial in Japan of Treakisym in r/r diffuse large B-cell lymphoma. Intravenous Rigosertib is in development for myelodysplastic syndromes (MDS) and has started a pivotal Phase III global study; SymBio is enrolling patients in Japan and interim data are expected during H217. SymBio has initiated a Phase I study of high-dose oral rigosertib and intends to participate in a planned global trial in untreated higher-risk MDS patients.

INDUSTRY OUTLOOK

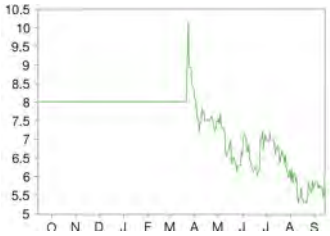
SymBio is focused on in-licensing niche opportunities in hard-to-treat indications often overlooked by big pharma. An in-house screening process to select additional pipeline candidates for development and commercialisation will be key to driving operating leverage.

Y/E Dec	Revenue (¥m)	EBITDA (¥m)	PBT (¥m)	EPS (fd) (¥)	P/E (x)	P/CF (x)
2015	1933.0	(2527.0)	(2630.0)	(81.3)	N/A	N/A
2016	2368.0	(2101.0)	(2317.0)	(59.0)	N/A	N/A
2017e	2902.0	(3161.0)	(3261.0)	(69.1)	N/A	N/A
2018e	3820.0	(2272.0)	(2284.0)	(47.7)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$6.17
Market cap:	US$6m
Market	NASDAQ, TASE

Share price graph (US$)



Company description

Therapix Biosciences is an Israeli pharmaceutical company developing two cannabinoids to treat Tourette syndrome and mild cognitive impairment. It is currently in Phase IIa and soon to begin Phase I, respectively, and owns or licenses several IPs for cannabinoid nasal and sublingual administration.

Price performance

%	1m	3m	12m
Actual	8.4	0.5	(23.1)
Relative*	7.1	(1.8)	(34.5)

* % Relative to local index

Analyst

Maxim Jacobs

Therapix Biosciences (TRPX)

INVESTMENT SUMMARY

Therapix is investigating the potential of new formulations of cannabinoids to address underserved diseases of the brain. The lead clinical program, THX-TS01, is currently in Phase II trials testing its potential for treating Tourette's in adults and THX-ULD01 is scheduled to begin Phase I trials in Q417. THX-ULD01 development will focus on the treatment of traumatic brain injury (TBI). Both programs should qualify for a 505(b)(2) pathway to streamline approval.

INDUSTRY OUTLOOK

Diseases of the brain are a major unmet medical need with few effective or approved therapies for a host of diseases. Cannabinoids have had promising data in many indications in the area and is a class that has received a lot of interest.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	N/A	N/A	N/A	N/A	N/A	N/A
2016	0.0	(1.7)	(1.7)	(179.93)	N/A	N/A
2017e	0.0	(3.6)	(3.6)	(97.27)	N/A	N/A
2018e	0.0	(7.0)	(7.0)	(181.01)	N/A	N/A

Sector: Pharma & healthcare

Price:	264.5p
Market cap:	£426m
Market	LSE

Share price graph (p)

Company description

Touchstone Innovations is a technology transfer, incubation and venture investment company. It invests in ventures from Imperial College London, Cambridge and Oxford Universities and UCL. The majority of its investments are bio/med tech.

Price performance

%	1m	3m	12m
Actual	(11.2)	(8.8)	(42.4)
Relative*	(10.5)	(6.6)	(47.6)

* % Relative to local index

Analyst

Dr Susie Jana

Touchstone Innovations (IVO)

INVESTMENT SUMMARY

Our coverage of Touchstone Innovations is currently suspended while we await the outcome of the IP Group offer.

INDUSTRY OUTLOOK

Forecasts for Touchstone Innovations are withdrawn while we await clarity in relation to the IP Group offer.

Y/E Jul	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2015	5.1	(8.2)	(7.4)	(5.4)	N/A	N/A
2016	4.3	(9.8)	(9.8)	(6.7)	N/A	N/A
2017e	N/A	N/A	N/A	N/A	N/A	N/A
2018e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price:	€3.32
Market cap:	€187m
Market	Euronext Paris

Share price graph (€)

Company description

Transgene is a French company developing immunotherapy agents for cancer and infectious diseases. Oncolytic virus Pexa-Vec (Phase III for HCC) and cancer vaccine TG4010 (Phase II for NSCLC) are the lead clinical candidates.

Price performance

%	1m	3m	12m
Actual	(2.1)	0.9	25.6
Relative*	(4.1)	1.2	4.7

* % Relative to local index

Analyst

Juan Pedro Serrate

Transgene (TNG)

INVESTMENT SUMMARY

Transgene is focused on the development of its cancer immunotherapy products (oncolytic virus Pexa-Vec, MUC1 cancer vaccine TG4010) and infectious disease programs (TG1050 for HBV and TG4001 for HPV) in combination with immune checkpoint inhibitors (ICIs). Four combination clinical trials have started: a Phase 2 trial testing TG4010+Opdivo in 2nd-line NSCLC, a Phase 1 trial with Pexa-Vec+Yervoy in solid tumours, a Phase 1/2 of Pexa-Vec+metronomic cyclophosphamide in HER2 negative breast cancer and a Phase II with Pexa-Vec+Opdivo in 1st line advanced liver cancer. Transgene and partner Sillajen are running a global 600-patient Phase III study in liver cancer. TG1050 for HBV is advancing through Phase I/Ib testing. It has an agreement with Merck and Pfizer to evaluate TG4001 with Avelumab in HPV+ Head & Neck Cancer patients in a Phase I/II study. Transgene also has a collaboration with BMS to test TG4010 in combination with Opdivo and chemotherapy in 1L NSCLC. Cash at 30 June 2017 was €43.9m, sufficient into end 2018.

INDUSTRY OUTLOOK

Immunotherapies are among the most promising class of products for cancer. Increased attention is now being paid to the use of combination therapy approaches to improve cancer response rates further.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	9.9	(25.7)	(28.9)	(78.08)	N/A	N/A
2016	10.3	(20.4)	(23.1)	(42.90)	N/A	N/A
2017e	8.3	(32.0)	(35.0)	(62.11)	N/A	N/A
2018e	8.6	(33.6)	(36.8)	(65.19)	N/A	N/A

Sector: Pharma & healthcare

Price:	€1.66
Market cap:	€34m
Market	Euronext Paris

Share price graph (€)

Company description

TxCell is developing regulatory T-cell therapies against autoimmune and inflammatory disorders. It is now focused on a novel CAR Treg technology platform. A clinical trial in transplantation may start in 2018. Ovasave for Crohn's disease is at clinical stage but is on hold.

Price performance

%	1m	3m	12m
Actual	5.1	(22.8)	(43.5)
Relative*	2.9	(22.6)	(53.0)

* % Relative to local index

Analyst

Dr John Savin

TxCell (TXCL)

INVESTMENT SUMMARY

TxCell has agreed a vital manufacturing supply contract with Lentigen, a producer of the critical lentivirus reagent essential for modifying T-cells. This is a core element for the development of CAR-modified regulatory T-cells (CAR Treg). Production of any modified T-cell therapy is complex and companies need to be able to scale up production and keep costs under control. In 2018, warrants could bring a further €10.8m in cash covering costs until the IND is filed for the first ever CAR Treg clinical trial. Cash on 30 June was €8.7m.

INDUSTRY OUTLOOK

Celgene's $300m acquisition of Delinia, a preclinical Treg company, gives a benchmark on Treg deals. TxCell is developing two platform technologies: ENTrIA and ASTrIA. ENTrIA uses chimeric antigen receptor (CAR) technology. A granted European patent offers broad protection. CAR Treg development is ongoing in transplant, lupus nephritis, Bullbous pemphigoid (skin) and multiple sclerosis. A collaboration with INSERM on MS and transplant was announced in May.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.9	(10.8)	(10.8)	(87.7)	N/A	N/A
2016	0.0	(11.9)	(12.7)	(97.6)	N/A	N/A
2017e	0.0	(11.1)	(11.3)	(55.5)	N/A	N/A
2018e	0.0	(11.0)	(11.0)	(31.4)	N/A	N/A

Sector: Pharma & healthcare

Price:	15.6p
Market cap:	£82m
Market	AIM

Share price graph (p)

Company description

Vernalis is a UK speciality pharma company with an FDA-approved, prescription-only cough cold treatment, Tuzistra XR; an FDA approved amoxicillin, Moxatag; and a late-stage US cough cold pipeline of four products.

Price performance

%	1m	3m	12m
Actual	(2.3)	(14.4)	(63.9)
Relative*	(1.6)	(12.4)	(67.1)

* % Relative to local index

Analyst

Dr Susie Jana

Vernalis (VER)

INVESTMENT SUMMARY

Investment into addressing barriers to higher Tuzistra XR prescribing is starting to translate into higher prescription (Rx) rates; both Rx and sales are showing positive trends and gathering momentum. The FDA has issued a Complete Response Letter for the CCP-07 NDA highlighting undisclosed outstanding questions (unrelated to formulation and pharmacokinetics), and CCP-08 NDA (indicating that the outstanding items which resulted in the CRL for CCP-07 remain and need to be addressed prior to the resubmission and approval of both NDAs). We are placing our forecasts under review following the financial year ended 30 June 2017 results.

INDUSTRY OUTLOOK

Generic IR liquid products dominate the US Rx cough cold market, reflecting difficulties in formulating ER liquids that satisfy current FDA regulations; Tuzistra XR meets these standards. Favourable pricing and reimbursement of the five cough cold products in development by Vernalis would value the addressable market at up to $3.5bn.

Y/E Jun	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2016	12.0	(23.9)	(16.2)	(3.4)	N/A	N/A
2017	20.8	(23.3)	(21.2)	(3.6)	N/A	N/A
2018e	N/A	N/A	N/A	N/A	N/A	N/A
2019e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price:	A$0.89
Market cap:	A$214m
Market	ASX, OTC QX

Share price graph (A$)

Company description

Viralytics is a biopharmaceutical company developing Cavatak oncolytic virotherapy to target late-stage melanoma and other solid tumour types. It is trialling Cavatak as a monotherapy and in combination with checkpoint inhibitors.

Price performance

%	1m	3m	12m
Actual	1.1	(8.7)	(3.8)
Relative*	0.8	(7.7)	(11.6)

* % Relative to local index

Analyst

Dr Dennis Hulme

Viralytics (VLA)

INVESTMENT SUMMARY

Viralytics presented data at the American Association for Cancer Research (AACR) in April showing a 50% response rate (11/22) in patients with advanced melanoma treated with its Cavatak virotherapy in combination with Yervoy in the Phase Ib MITCI trial. An update at ASCO showed a 23% response rate (3/13) in the subset of patients who had failed PD1/L1 checkpoint inhibitor therapy; the trial has been expanded to recruit an extra 44 patients who had failed prior PD1/L1 therapy. The CAPRA trial of Cavatak plus Keytruda has been expanded to enrol up to 50 late-stage melanoma patients following a 60% response rate in the first 15 patients. Other ongoing trials include the Phase I/II CANON trial in superficial bladder cancer; and Keynote 200 (STORM Part B), a Phase Ib trial of IV Cavatak and Keytruda in advanced lung and bladder cancer. Cash at 30 June was A$34m.

INDUSTRY OUTLOOK

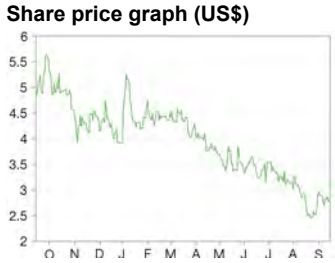
The FDA approval of Amgen's Imlygic has made oncolytic virotherapy a commercial reality. The December 2016 licence deal between Bristol-Myers Squibb and PsiOxus for its preclinical oncolytic virus NG-348 highlights the potential value of oncolytic virotherapy products; terms included US$50m upfront and up to US$886m in milestones.

Y/E Jun	Revenue (A$m)	EBITDA (A$m)	PBT (A$m)	EPS (fd) (c)	P/E (x)	P/CF (x)
2015	2.5	(6.0)	(5.5)	(3.0)	N/A	N/A
2016	4.7	(8.5)	(8.0)	(3.8)	N/A	N/A
2017e	4.3	(12.2)	(11.7)	(4.9)	N/A	N/A
2018e	4.8	(11.7)	(11.4)	(4.7)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$2.80
Market cap:	US$74m
Market	NYSE MKT

Share price graph (US$)



Company description

VolitionRx is a Belgium-based diagnostics company focused on developing blood-based cancer diagnostics based on its proprietary Nu.Q™ technology. Its lead program is in colorectal cancer, which entered the European market in 2017.

Price performance

%	1m	3m	12m
Actual	(3.4)	(19.1)	(42.3)
Relative*	(4.6)	(21.0)	(50.8)

* % Relative to local index

Analyst

Maxim Jacobs

VolitionRx (VNRX)

INVESTMENT SUMMARY

VolitionRx's proprietary Nu.Q™ technology detects the level and structure of nucleosomes in the blood using one drop of blood serum. It is currently focused on colorectal cancer (CRC), a very large opportunity with around 225 million people eligible for screening (US/EU). The company recently announced its first product, the Nu.Q™ Colorectal Cancer Screening Triage Test received a CE Mark and may be included in the Danish national screening program. Also, the company presented the final data from its 8,000-person clinical validation study of the Nu.Q™ Colorectal Cancer Screening Triage Test. Patients screened with this product would have required 24.5% fewer colonoscopies. VolitionRx will be participating in a 13,500 undiagnosed person trial in the US to gain FDA approval.

INDUSTRY OUTLOOK

The blood-based cancer screening market is in its nascent stages with great potential and serves an unmet medical need. Currently there are few, if any, non-invasive screening methods for the vast majority of cancers.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.0	(10.0)	(9.7)	(54.49)	N/A	N/A
2016	0.0	(12.3)	(12.3)	(53.22)	N/A	N/A
2017e	0.0	(13.7)	(13.7)	(51.23)	N/A	N/A
2018e	1.3	(17.4)	(18.5)	(66.88)	N/A	N/A

Sector: Pharma & healthcare

Price:	SEK80.50
Market cap:	SEK478m
Market	NASDAQ OMX First North

Share price graph (SEK)

Company description

Xbrane Biopharma is a Swedish developer of generics . The lead product is triptorelin generic, Spherotide, for prostate cancer. Sales are being made in Iran. Xlucane, a Lucentis biosimilar is produced using an efficient manufacturing system.

Price performance

%	1m	3m	12m
Actual	82.1	136.8	96.3
Relative*	79.5	146.7	74.9

* % Relative to local index

Analyst

Dr John Savin

Xbrane Biopharma (XBRANE)

INVESTMENT SUMMARY

The Iranian regulator approved the triptorelin generic Spherotide one-month formulation in July. H1 sales (mostly bulk Spherotide) were SEK 16.7m. Sales overall in 2017 could be over SEK 20m. The reported H1 loss was SEK 19.5m with a cash outflow before investment and funding of SEK 16.2m. There was a May net SEK 17m equity issue; SEK 20m gross. Cash on 30 June was SEK 32.3m. European trials of Spherotide (one month) are planned for 2018. A three month formulation is in preclinical development. Xbrane hopes to conclude a European partnering deal in the near term. A Chinese partner is expected by management before the year end. A partner is being sought for Xlucane development.

INDUSTRY OUTLOOK

Triptorelin treats advanced prostate cancer, endometriosis and uterine fibroids. Sales in 2015 for these were $380m. Xbrane is developing Xlucane, a biosimilar of Lucentis (ranibizumab) to treat wet age-related macular degeneration. Xbrane has a production method that claims to lower biosimilar costs by 85%.

Y/E Dec	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (fd) (öre)	P/E (x)	P/CF (x)
2015	0.4	(10.7)	(11.0)	(254.4)	N/A	N/A
2016	2.5	(26.9)	(29.5)	(585.5)	N/A	N/A
2017e	24.0	(13.6)	(16.9)	(363.1)	N/A	N/A
2018e	22.1	(92.2)	(95.5)	(2008.6)	N/A	N/A

Company coverage

Company	Note	Date published
4SC	Update; Update	30/03/2017; 17/05/2017
Abzena	Update; Update	11/07/2017; 19/07/2017
Acarix	Update; Update	15/05/2017; 13/07/2017
Achillion Pharmaceuticals	Update; Update	28/09/2016; 08/05/2017
AFT Pharmaceuticals	Update; Update	03/03/2017; 31/05/2017
Allium Medical	Update; Update	24/07/2017; 05/09/2017
Angle	Flash; Flash	16/06/2017; 05/07/2017
Arix Bioscience	Initiation	20/04/2017
Atossa Genetics	Flash; Update	30/03/2017; 30/05/2017
Basilea Pharmaceuticals	Update; Update	07/03/2017; 11/07/2017
Bio-Light Life Sciences	Update; Update	07/08/2017; 12/09/2017
Biondvax Pharmaceuticals	Update; Update	15/05/2017; 13/07/2017
Carmat	Flash; Outlook	05/05/2017; 31/07/2017
Celyad	Update; ADR Update	14/08/2017; 15/08/2017
Collplant Holdings	Update; Update	05/06/2017; 18/09/2017
Crossject	Update; Update	09/12/2016; 07/04/2017
e-Therapeutics	Outlook; Update	05/05/2017; 27/07/2017
Genkyotex	Outlook; Update	30/05/2017; 06/07/2017
GW Pharmaceuticals	Outlook; Update	05/04/2017; 22/08/2017
Hutchison China Meditech	Update; ADR Update	13/06/2017; 13/06/2017
Hybrigenics	Outlook; Update	12/05/2017; 29/08/2017
Immunovia	Update; Update	20/12/2016; 30/03/2017
Intec Pharma	Update; Update	27/07/2017; 29/08/2017
International Stem Cell	Update; Update	27/04/2017; 24/05/2017
Kiadis Pharma	Update; Update	08/12/2016; 06/01/2017
MagForce	DB Update; Update	13/07/2017; 11/08/2017
Medigene	Update; Update	11/07/2017; 03/08/2017
Mesoblast	Update; Update	05/04/2017; 07/06/2017
Mologen	Update; Update	14/11/2016; 16/05/2017
MorphoSys	Outlook	17/05/2016
Nanobiotix	Outlook; Outlook	31/05/2016; 02/02/2017
NetScientific	Update; Update	05/05/2017; 13/07/2017
NeuroVive Pharmaceutical	Initiation; Update	29/06/2017; 25/08/2017
Newron Pharmaceuticals	Update; Flash	13/03/2017; 22/03/2017
Novogen	Update; ADR Update	11/09/2017; 11/09/2017
Nuevolution	QuickView; Initiation	04/01/2017; 16/02/2017
Onxeo	Flash; Flash	06/07/2017; 14/09/2017
Orexigen Therapeutics	Outlook; Update	16/06/2017; 17/08/2017
Orexo	Update; Update	09/06/2017; 08/08/2017
Oryzon Genomics	Flash; Update	21/07/2017; 22/08/2017
Oxford BioMedica	Update; Update	25/07/2017; 01/09/2017
Pacific Edge	Update; Update	13/02/2017; 01/06/2017
Paion	Update; Update	07/07/2017; 14/08/2017
PDL BioPharma	Update; Update	10/05/2017; 10/08/2017
PharmaMar	Update; Update	03/05/2017; 19/07/2017
Photocure	Update; Update	06/06/2017; 01/09/2017

Pixium Vision	Flash; Update	26/05/2017; 22/08/2017
Pluristem Therapeutics	Update; Update	28/02/2017; 20/06/2017
Prima BioMed	ADR Update; Update	23/03/2017; 23/06/2017
Probiodrug	Update; Update	16/06/2017; 18/09/2017
Quantum Genomics	Update; Update	04/04/2017; 27/06/2017
Redhill Biopharma	Update; Update	17/07/2017; 22/08/2017
Regeneus	Update; Update	31/05/2017; 07/09/2017
ReNeuron Group	Update; Update	02/05/2017; 06/07/2017
ROVI Laboratorios Farmaceuticos	Initiation	12/07/2017
Selvita	Outlook; Flash	20/03/2017; 28/03/2017
Sunesis Pharmaceuticals	Update; Update	10/05/2017; 03/08/2017
SymBio Pharmaceuticals	Outlook; ADR Outlook	27/02/2017; 27/02/2017
Therapix Biosciences	Initiation; Update	29/06/2017; 18/08/2017
Touchstone Innovations	Update; Update	06/01/2017; 04/04/2017
Transgene	Update; Outlook	24/03/2017; 18/07/2017
TxCell	Update; Update	14/03/2017; 11/07/2017
Vernalis	Update; Update	24/04/2017; 19/07/2017
Viralytics	Update; Outlook	09/03/2017; 19/04/2017
VolitionRx	Update; Update	16/05/2017; 21/08/2017
Xbrane Biopharma	Initiation; Update	10/02/2017; 01/03/2017

Investment companies		
BB Biotech AG	Investment trust review	09/02/2016; 27/02/2017
Biotech Growth Trust (The)	Investment trust review	20/07/2016; 21/02/2017
International Biotechnology Trust	Investment trust review	03/03/2015; 11/12/2015

QuickViews

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