EDISON

Edison Healthcare Insight

February 2017

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The Edison healthcare team

Lala Gregorek

Lala joined Edison's healthcare team in January 2010 from Canaccord Adams, where the focus of her coverage as a life sciences analyst was on UK and European biotech stocks. Before graduating with an M.Phil in bioscience enterprise from Cambridge University, she worked in risk management as a credit analyst covering European financial institutions and hedge funds at Dresdner Kleinwort and Lehman Brothers.

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.

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).

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.

Dr Philippa Gardner

Philippa has been working with Edison since January 2013. After taking a year out to cycle some of the world, she returned to the Healthcare team in November 2016. Philippa has over a decade of experience as a healthcare analyst covering biotechnology, life science and mid-cap pharma stocks, and has worked on a number of European IPOs during her time on award-winning teams both at Jefferies and at Lehman Brothers. Philippa holds a doctorate in biochemical engineering from UCL.

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Prices at 10 February 2017

Published 16 February 2017

Welcome to the February edition of the Edison Healthcare Insight. In this edition we have profiled 76 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.

Edison is an investment research and advisory company, with offices in North America, Europe, the Middle East and AsiaPac. The heart of Edison is our world renowned equity research platform and deep multi-sector expertise. At Edison Investment Research, our research is widely read by international investors, advisors and stakeholders. Edison Advisors leverages our core research platform to provide differentiated services including investor relations and strategic consulting. Edison is authorised and regulated by the Financial Conduct Authority. Edison is a registered investment adviser regulated by the state of New York.

We welcome any comments/suggestions our readers may have.

Lala Gregorek & Maxim Jacobs

Healthcare Research

Company profiles

Prices at 10 February

US$/£ exchange rate: 0.7996
€/£ exchange rate: 0.8494
C$/£ exchange rate: 0.6107
A$/£ exchange rate: 0.6126
NZ$/£ exchange rate: 0.5748
SEK/£ exchange rate: 0.0896
DKK/£ exchange rate: 0.1142
NOK/£ exchange rate: 0.0953
JPY/£ exchange rate: 0.0070
NIS/£ exchange rate: 0.2100
CHF/£ exchange rate: 0.7962

Sector: Pharma & healthcare

Price:	€2.71
Market cap:	€51m
Market	FRA

Share price graph (€)

Company description

4SC is a Munich-based cancer R&D company. Epigenetic compound resminostat (HDAC inhibitor) is the lead candidate for CTCL (Phase II initiated Q416), partnered with Yakult Honsha and Menarini. 4SC is partnered with Link Health for a Phase I oncology asset.

Price performance

%	1m	3m	12m
Actual	10.8	13.4	(4.9)
Relative*	10.0	3.3	(26.5)

* % Relative to local index

Analyst

Dr Linda Pomeroy

4SC (VSC)

INVESTMENT SUMMARY

4SC has initiated its pivotal 150-patient Phase II study with epigenetic 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 (Japan) and Menarini (rest of Asia-Pacific). Recently announced positive Phase II results from a more detailed analysis of the HCC Yakult trial data, which could lead to further clinical development. Also, announced appointment of a new CEO and sale of its immunology portfolio streamlining the focus on its core business. Other positives include a partnership with Link Health in China for its oncology Eg5 inhibitor, 4SC-205, promising preclinical data for its epigenetic HDAC/LSD1 inhbitor (4SC-202) and promising preclinical data indicating resminostat could offer therapeutic benefit in combination with cancer immunotherapies. 4SC held €12.3m in cash (gross) at Q316, following a €29m equity issue (7.25m shares at €4.00) in July 2015.

INDUSTRY OUTLOOK

Resminostat could become the first HDAC inhibitor to gain EU approval for CTCL (vs four 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)
2014	7.1	(8.3)	(8.8)	(87.6)	N/A	N/A
2015	3.3	(7.9)	(8.4)	(58.6)	N/A	N/A
2016e	3.8	(12.8)	(12.9)	(67.9)	N/A	N/A
2017e	4.0	(5.9)	(6.0)	(31.1)	N/A	N/A

Sector: Pharma & healthcare

Price:	40.5p
Market cap:	£56m
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	12.5	22.7	(18.2)
Relative*	12.4	15.4	(35.4)

* % Relative to local index

Analyst

Dr Linda Pomeroy

Abzena (ABZA)

INVESTMENT SUMMARY

Abzena offers fully integrated research and manufacturing services/technologies that enable its customers to develop 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. 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); 11 such products are now in the clinic, eg Gilead's GS-5745 (Phase III for gastric cancer) and Roche's RG6125 (formerly SDP051). Also, Abzena has recently announced another licensing deal for its ADC linker technology (ThioBridge™). This deal was for up to ten ADC products and adds to the previous deal with Halozyme for up to three ADC targets.

INDUSTRY OUTLOOK

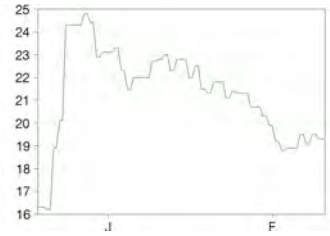
The biological services industry is highly competitive but Abzena's deepening portfolio of technologies and services is compelling, while its ADC technology offers safety and efficacy advantages over competitors.

Y/E Mar	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2015	5.7	(4.5)	(4.7)	(5.89)	N/A	N/A
2016	9.9	(7.0)	(7.5)	(6.00)	N/A	N/A
2017e	19.1	(6.8)	(8.2)	(5.16)	N/A	N/A
2018e	25.0	(4.3)	(5.7)	(3.55)	N/A	N/A

Sector: Pharma & healthcare

Price: SEK19.30
Market cap: SEK443m
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. Pre-reimbursement sales will start in 2017. Full EU sales may start from 2019. US sales might start from 2021.

Price performance

%	1m	3m	12m
Actual	N/A	N/A	N/A
Relative*	N/A	N/A	N/A

* % Relative to local index

Analyst

Dr John Savin

Acarix (ACARIX)

INVESTMENT SUMMARY

Acarix has developed the CE-marked CADScor System to 'hear' coronary artery blood flow. CADScor is designed to be used by doctors to help assess patients' risk of coronary artery disease (CAD). This could enable about half of the patients to be ruled out from further expensive testing. Acarix aims to sell CADScor from 2017 in Germany and Scandinavia. Full EU reimbursement may start in 2019. US marketing will probably require a US clinical trial with sales from 2021 possible. The IPO at SEK17.60/share completed at a value of SEK405m in December 2016, raising SEK140m gross, SEK125m net. Acarix could achieve profitability from 2022.

INDUSTRY OUTLOOK

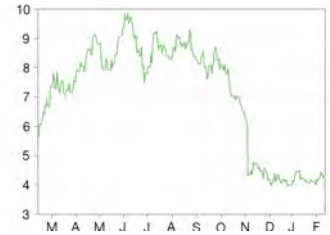
The US has over 3.8 million tests for coronary artery disease per year ordered by primary care physicians. Independent researchers have claimed that 35% of these tests are not needed and harmful. US healthcare providers could save over $500m a year if most low-risk patients could be quickly and accurately tested, reassured and sent home.

Y/E Jun	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (öre)	P/E (x)	P/CF (x)
2014	N/A	(23.8)	(23.9)	(135.0)	N/A	N/A
2015	N/A	(15.2)	(15.4)	(67.0)	N/A	N/A
2016e	N/A	(15.3)	(38.7)	(235.0)	N/A	N/A
2017e	3.0	(49.8)	(49.4)	(200.0)	N/A	N/A

Sector: Pharma & healthcare

Price: US$4.28
Market cap: US$585m
Market NASDAQ

Share price graph (US$)



Company description

Achillion is engaged in the discovery and development of treatments for chronic HCV and progressing compounds from its research platform in its novel factor D programme. It is collaborating with J&J to develop and commercialise its HCV franchise, including a triple-regimen treatment, which is potentially best in class.

Price performance

%	1m	3m	12m
Actual	(4.3)	(10.1)	(27.7)
Relative*	(6.2)	(15.9)	(42.2)

* % Relative to local index

Analyst

Maxim Jacobs

Achillion Pharmaceuticals (ACHN)

INVESTMENT SUMMARY

Achillion is developing an oral, once-a-day, single pill treatment for HCV more competitive than leader Harvoni. The company recently reported a 100% SVR rate in patients who received just 6-8 weeks of therapy in a Phase IIa study evaluating the combination of AL-335, Odalasvir (ACH-3102), and Simeprevir in genotype 1 HCV. Achillion is well funded to progress its oral factor-D programme in rare diseases, such as PNH and C3 Glomerulopathy, as well as in larger market opportunities including dry AMD. A Phase I trial for its factor-D inhibitor candidate, ACH-4471, is ongoing with interim results expected in H117.

INDUSTRY OUTLOOK

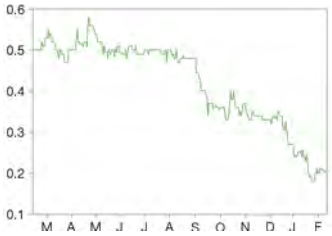
More than 150m people are infected with HCV worldwide. Treatment has been transformed in recent years by the approval of Sovaldi (sofosbuvir) and Gilead's combination product; recent pressure from key healthcare groups has led to a drop in HCV prices.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2014	0.0	(61.7)	(61.7)	(62.8)	N/A	N/A
2015	66.1	(4.3)	(3.9)	(3.1)	N/A	121.0
2016e	0.0	(76.1)	(73.3)	(53.5)	N/A	N/A
2017e	0.0	(78.3)	(77.1)	(53.6)	N/A	N/A

Sector: Pharma & healthcare

Price:	A$0.20
Market cap:	A$27m
Market	ASX

Share price graph (A$)



Company description

Adherium is a digital health company developing technologies that address suboptimal medication use and remote patient management in chronic diseases. Clinical evidence shows that its Smartinhaler substantially increases adherence and reduces severe exacerbations in asthma.

Price performance

%	1m	3m	12m
Actual	(21.6)	(41.2)	(60.0)
Relative*	(21.0)	(44.9)	(66.6)

* % Relative to local index

Analyst

Dr Dennis Hulme

Adherium (ADR)

INVESTMENT SUMMARY

Adherium has developed the market-leading Smartinhaler platform that monitors usage of inhaled asthma and COPD medications and provides reminders and feedback on medication usage patterns. Independent clinical studies have shown that the Smartinhaler reminders and feedback improve patient adherence and reduce severe exacerbations in asthma patients. AstraZeneca has initiated a US clinical study that aims to confirm that the platform similarly improves adherence in COPD patients. Adherium is positioned for strong revenue growth through an existing commercial relationship with AstraZeneca and strong relationships with other pharma companies and key opinion leaders through sales for clinical trials. With A$30m cash at 31 December, Adherium has the resources to pursue an intensive growth and investment programme.

INDUSTRY OUTLOOK

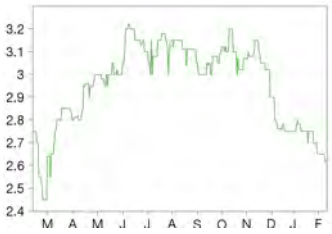
Adherium has the benefit of 14 years of experience in developing and trialling Smartinhaler devices. Several competitors have entered the field more recently, but none of the competitors can match the independent clinical trials showing the efficacy of the Adherium device in improving adherence and reducing exacerbations.

Y/E Mar / Jun	Revenue (A$m)	EBITDA (A$m)	PBT (A$m)	EPS (c)	P/E (x)	P/CF (x)
2015	3.1	(1.1)	(1.3)	(1.92)	N/A	13040.0
2016	2.9	(6.5)	(6.4)	(5.39)	N/A	N/A
2017e	5.7	(11.0)	(10.5)	(6.59)	N/A	N/A
2018e	18.7	(4.6)	(4.6)	(2.73)	N/A	N/A

Sector: Pharma & healthcare

Price:	NZ$2.62
Market cap:	NZ$254m
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	(4.7)	(16.8)	(4.7)
Relative*	(5.6)	(20.8)	(15.9)

* % 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. AFT has agreements in 111 countries to distribute Maxigesic, its combination acetaminophen/ibuprofen product, which is addressing a $10.4b market. Maxigesic sales momentum has increased dramatically due to recent launches, with more to come. 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 (though initially it is targeting the smaller sinusitis surgery market).

INDUSTRY OUTLOOK

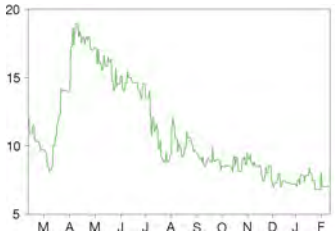
AFT is a multi product company targeting pharmacy prescription, OTC and hospital markets. Data for Maxigesic offers them a competitive advantage in a fragmented industry.

Y/E Mar	Revenue (NZ$m)	EBITDA (NZ$m)	PBT (NZ$m)	EPS (fd) (c)	P/E (x)	P/CF (x)
2015	56.2	(9.7)	(11.4)	(945.74)	N/A	N/A
2016	64.0	(7.8)	(10.8)	(39.06)	N/A	N/A
2017e	70.4	(11.6)	(14.3)	(52.07)	N/A	N/A
2018e	99.1	2.1	0.3	0.66	397.0	N/A

Sector: Pharma & healthcare

Price:	US$7.00
Market cap:	US$82m
Market	NASDAQ

Share price graph (US$)



Company description

Akari Therapeutics is a biopharmaceutical company developing Coversin, a complement system inhibitor for the treatment of paroxysmal nocturnal hemoglobinuria (PNH), atypical hemolytic uremic syndrome (aHUS), and other immune disorders without a standard of care.

Price performance

%	1m	3m	12m
Actual	(10.5)	(17.7)	(43.0)
Relative*	(12.3)	(23.0)	(54.4)

* % Relative to local index

Analyst

Maxim Jacobs

Akari Therapeutics (AKTX)

INVESTMENT SUMMARY

Akari is a biopharmaceutical company advancing the clinical development of Coversin, a complement inhibitor derived from the saliva of a species of tick. Coversin shares a mechanism of action with the $2.59bn drug Soliris (Alexion, 2015 sales), and the company will be seeking approval for the same ultra-rare autoimmune hemolytic disorders as Soliris, as well as two other immune disorders without current treatments. We expect data from the ongoing Phase II clinical trial of Coversin in PNH (non-resistant population) in Q117, and the company has announced that it plans to progress to Phase III in the summer of 2017.

INDUSTRY OUTLOOK

Akari is targeting a $2.59 billion market with their tick derived complement inhibitor. A main advantage over the competition is that Coversin can be given subcutaneously at home while competitors generally need to be given via infusion at an infusion center.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2014	N/A	N/A	N/A	N/A	N/A	N/A
2015	0.0	(11.3)	(49.0)	(573.33)	N/A	N/A
2016e	0.0	(25.1)	(17.4)	(143.86)	N/A	N/A
2017e	0.0	(49.5)	(51.3)	(404.55)	N/A	N/A

Sector: Pharma & healthcare

Price:	NIS1.24
Market cap:	NIS66m
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	3.8	(4.5)	12.9
Relative*	5.0	(6.3)	8.4

* % 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 (95% of NIS5.2m in 2015). Allium has achieved revenue CAGR of 19% in 2011-15. 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. After raising c NIS14m in Q316, cash equivalents and short-term deposits at end Q316 were NIS28.3m.

INDUSTRY OUTLOOK

We expect Allium's growth to accelerate in the medium term, driven by new markets, resulting in 2015-20e revenue CAGR of 41%. Allium also has two devices in preclinical development: Allevetix for diabetes and obesity (start a clinical trial in 2017) and BMV, a mitral valve replacement device that will develop until completion of clinical trial.

Y/E Dec	Revenue (NISm)	EBITDA (NISm)	PBT (NISm)	EPS (NIS)	P/E (x)	P/CF (x)
2014	4.9	(19.1)	(20.1)	(1.09)	N/A	N/A
2015	5.2	(16.3)	(18.5)	(0.65)	N/A	N/A
2016e	7.4	(16.9)	(18.1)	(0.40)	N/A	N/A
2017e	11.2	(14.2)	(15.0)	(0.28)	N/A	N/A

Sector: Pharma & healthcare

Price:	50.5p
Market cap:	£38m
Market	AIM

Share price graph (p)

Company description

Angle is a specialist medtech company with a potentially disruptive platform technology. The proprietary 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	0.0	(14.4)	(16.5)
Relative*	(0.1)	(19.5)	(34.1)

* % Relative to local index

Analyst

Dr Jonas Peciulis

Angle (AGL)

INVESTMENT SUMMARY

Angle's proprietary Parsortix cell separation platform is used to detect and harvest circulating tumour cells (CTCs) from blood. The company initiated research use sales with £361k and £219k booked in H216 and H117 respectively. While small numbers in absolute terms, these represent a commercial milestone and in line with the company's strategy of research use sales being a near-term goal, while clinical use provides the largest potential. The contract signed with the Cancer Research UK (CRUK) Manchester Institute in May 2016 indicates a potential boost in the near term. Parsortix's first potential clinical application is for triaging women with ovarian masses before surgery, with the clinical studies ongoing and due to report headline data in Q217. Main 2017 catalysts are the full results from the ovarian cancer studies, expected pickup of research use sales, any new data from Angle's KOLs and customers investigating Parsortix and progress with the FDA.

INDUSTRY OUTLOOK

The precision medicine approach is a key initiative aiming to improve treatment efficacy and outcomes by tailoring the treatment to the patient and their disease. CTCs provide information about the individual's cancer, which can be used for prognostic, diagnostic and treatment stratification purposes.

Y/E Apr	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2015	0.0	(3.5)	(3.6)	(7.50)	N/A	N/A
2016	0.4	(4.9)	(5.0)	(7.97)	N/A	N/A
2017e	1.1	(7.4)	(7.7)	(10.24)	N/A	N/A
2018e	3.6	(4.9)	(5.2)	(6.67)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$1.19
Market cap:	US$126m
Market	NASDAQ

Share price graph (US$)

Company description

Athersys is a US biotech company developing MultiStem (allogeneic, bone marrow-derived stem cells). A Phase II trial with MultiStem in ischaemic stroke is complete, while further studies in AMI (Phase II) and ARDS (Phase IIa) are planned.

Price performance

%	1m	3m	12m
Actual	(22.7)	(26.1)	(1.7)
Relative*	(24.3)	(30.8)	(21.4)

* % Relative to local index

Analyst

Maxim Jacobs

Athersys (ATHX)

INVESTMENT SUMMARY

Athersys is developing MultiStem, an allogeneic, bone marrow-derived stem cell product. Results from a 140-patient Phase II study in ischaemic stroke revealed a potential benefit when dosed <36 hours post stroke (vs 3-5 hours with tPA), although the primary/secondary endpoints were not met on an intent-to-treat basis. Athersys recently signed a partnership agreement with Healios in Japan for stroke and other indications. The company has reached an agreement with both the FDA (through an SPA) and the PMDA on the design of the pivotal trials necessary for approval in those regions (a 300-pt trial in the US and a ~200 pt. trial in Japan).

INDUSTRY OUTLOOK

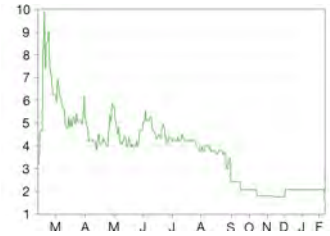
MultiStem is an allogeneic (off-the-shelf) product that allows it to be used in both acute and chronic treatment settings, and holds potential to be used across a range of indications. Regenerative medicine is gaining traction and recognition by global regulators (eg accelerated approval pathway in Japan).

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2014	1.6	(29.3)	(28.9)	(37.26)	N/A	N/A
2015	11.9	(17.5)	(17.2)	(20.93)	N/A	N/A
2016e	17.2	(15.6)	(15.3)	(17.86)	N/A	N/A
2017e	0.0	(34.5)	(33.8)	(38.92)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$1.52
Market cap:	US$6m
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	(6.7)	(14.1)	(53.9)
Relative*	(8.6)	(19.6)	(63.2)

* % Relative to local index

Analyst

Pooya Hemami

Atossa Genetics (ATOS)

INVESTMENT SUMMARY

Atossa is 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; it expects to complete recruitment by August 2017. Atossa is also 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 (for multiple reasons, including low levels of liver enzyme CYPD26), and have an increased risk for cancer recurrence.

INDUSTRY OUTLOOK

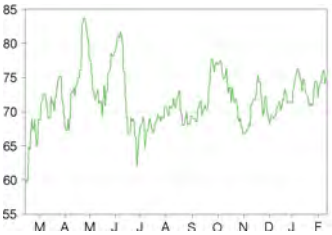
IDMC-fulvestrant development may hinge on future FDA guidance on whether the projects can fall under the 505(b)2 development pathway, which would reduce the breadth of clinical data needed to support a marketing application. Atossa plans to start an endoxifen human study in 2017. Atossa had $4.4m net cash on 30 September 2016, and a 9M16 cash burn rate of $4.0m.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2014	0.0	(6.9)	(7.3)	(457.47)	N/A	N/A
2015	0.0	(9.5)	(9.8)	(514.81)	N/A	N/A
2016e	0.0	(7.4)	(7.7)	(257.44)	N/A	N/A
2017e	0.0	(13.9)	(14.2)	(356.72)	N/A	N/A

Sector: Pharma & healthcare

Price:	CHF75.35
Market cap:	CHF890m
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, 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	0.8	5.9	20.5
Relative*	0.7	(0.7)	10.1

* % Relative to local index

Analyst

Dr Susie Jana

Basilea Pharmaceutica (BSLN)

INVESTMENT SUMMARY

Basilea is one of the few standalone European companies focused on developing novel antimicrobial drugs. It has two approved hospital-based products: Cresemba for severe mold infections and Zevtera for bacterial infections. Zevtera should enter US phase III development in H1 2017 following discussions with FDA on PIII (seeking SPA) and the award of a BARDA (division of US Dept. of Health & Human Services Office) contract up to $100m for its phase III development. 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.

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)
2014	42.6	(39.2)	(41.2)	(414.46)	N/A	N/A
2015	52.8	(58.9)	(61.3)	(607.22)	N/A	N/A
2016e	61.2	(46.8)	(54.1)	(496.01)	N/A	N/A
2017e	88.6	(28.7)	(35.6)	(319.87)	N/A	N/A

Sector: Pharma & healthcare

Price:	NIS10.96
Market cap:	NIS29m
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	(15.0)	(4.8)	(59.1)
Relative*	(14.0)	(6.5)	(60.7)

* % Relative to local index

Analyst

Pooya Hemami

Bio-Light Life Sciences (BOLT)

INVESTMENT SUMMARY

BioLight Life Sciences is advancing several eyecare products and technologies. IOPtiMate is a laser-based surgical device to treat moderate to advanced glaucoma, and Eye-D VS-101 is an extended-dose latanoprost drug implant in Phase I/IIa trials to treat glaucoma. BioLight's IOPtiMate studies show that it can reduce intraocular pressure by 45%, a level comparable to more invasive filtration surgery, which has well-known adverse event risks. VS-101 can be helpful for the 20-60% of glaucoma patients who do not comply with daily eye drop therapy. IOPtiMate was launched mainly in the EU and China in late 2014 and a US strategy will be determined shortly.

INDUSTRY OUTLOOK

BioLight signed a letter-of-intent in November 2016 with a Chinese investor for it to privatize the firm, but in January 2017 the investor indicated it was unable to proceed. BioLight indicates that this is due to recently adopted policies by Chinese authorities to restrict Chinese investors' ability to invest capital outside China. We believe that BioLight management is seeking additional avenues to extend the firm's financial runway.

Y/E Dec	Revenue (NISm)	EBITDA (NISm)	PBT (NISm)	EPS (NIS)	P/E (x)	P/CF (x)
2014	0.9	(26.7)	(30.1)	(8.91)	N/A	N/A
2015	1.4	(24.3)	(25.1)	(6.96)	N/A	N/A
2016e	2.3	(22.5)	(23.9)	(5.98)	N/A	N/A
2017e	6.6	(32.2)	(33.8)	(11.82)	N/A	N/A

Sector: Pharma & healthcare

Price:	NIS0.53
Market cap:	NIS71m
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	46.8	49.7	51.9
Relative*	48.5	47.0	45.8

* % 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. M-001 has so far been tested in two Phase I/II and three Phase II trials involving 479 participants in total and was shown to be consistently safe, immuno-genic and demonstrated synergy with conventional flu vaccines. The readout from the ongoing European Phase II study is due in coming months, while the initiation of the last Phase IIb study funded by the US National Institutes of Health (NIH), with results likely in H217/H118, will pave the way for partnering and the Phase III programme. In January 2017, Angels High Tech investments agreed to invest NIS10.9m ($2.83m) in exchange for 20% stake (after the investment). This adds to BiondVax's net cash position of NIS29.7m ($8.0m) at end-Q316.

INDUSTRY OUTLOOK

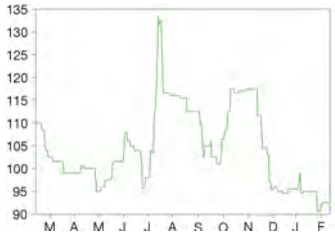
Current influenza vaccines are solely strain specific, needs to be updated every year with the effectiveness still lingering around 40%. There is a clear need for a more reliable vaccine that is both more immunoprotective and with coverage against a wider range of flu strains for the entire population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

Y/E Dec	Revenue (NISm)	EBITDA (NISm)	PBT (NISm)	EPS (NIS)	P/E (x)	P/CF (x)
2014	0.0	(7.5)	(7.8)	(0.14)	N/A	N/A
2015	0.0	(10.7)	(10.2)	(0.10)	N/A	N/A
2016e	0.0	(10.7)	(10.7)	(0.08)	N/A	N/A
2017e	0.0	(10.7)	(10.8)	(0.08)	N/A	N/A

Sector: Pharma & healthcare

Price:	92.5p
Market cap:	£30m
Market	AIM

Share price graph (p)



Company description

C4X Discovery is a UK business using its proprietary NMR-based technology to enable rational drug design, aimed at selecting safer and better drugs in a reduced timeframe. An OX1 receptor antagonist is the lead pre-clinical candidate.

Price performance

%	1m	3m	12m
Actual	(2.6)	(21.3)	(15.9)
Relative*	(2.8)	(26.0)	(33.6)

* % Relative to local index

Analyst

Dr Linda Pomeroy

C4X Discovery Holdings (C4XD)

INVESTMENT SUMMARY

C4X Discovery's (C4XD) proprietary drug discovery platform aims to become a highly efficient and productive discovery R&D engine. The Orexin programme, a selective OX1 antagonist, is the lead candidate, currently pre-clinial. Recently acquired proprietary human genetic technology platform (Taxonomy3) and Molplex technologies, broadens its drug discovery capabilities to both target identification and lead generation. Also, C4X recently announced a strategic collaboration with Evotec, building on a previous agreement. The agreement is a risk-shared multi-target programme. This is a positive development and builds on the recent fundraising of £5m (before expenses) as it enables outputs from its drug discovery engine and its preclinical pipeline to progress.

INDUSTRY OUTLOOK

C4XD's NMR-based technology can be used to solve the 3-D conformations of biomolecules in solution, which the company believes will enable data-driven rational design of superior drug candidates, on a significantly faster timescale than conventional techniques, which should appeal to the global pharma industry. Existing partnerships (Evotec, AstraZeneca and Takeda) and the Structural Genomics Consortium collaboration provide external validation of the technology.

Y/E Jul	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2015	0.3	(3.8)	(3.8)	(10.75)	N/A	N/A
2016	0.3	(6.7)	(6.7)	(16.66)	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:	€28.45
Market cap:	€169m
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	(2.0)	(22.9)	(17.0)
Relative*	(1.3)	(28.0)	(30.4)

* % Relative to local index

Analyst

Pooya Hemami

Carmat (ALCAR)

INVESTMENT SUMMARY

The first patient implant for the CE-mark enabling pivotal study for Carmat's bioprosthetic heart trial took place in August 2016. However, the French regulator (ANSM) suspended the study following this patient's death in October 2016, which the firm believes was due to improper battery handling by the patient (leading to a power shortage), and not due to any product malfunction. As ANSM sought, prior to allowing study resumption, a broader analysis of this event than Carmat envisioned, the firm decided to withdraw its study resumption request, and then file a new study request once sufficient data is compiled. We believe it is unlikely that CE Mark approval could occur before 2020. Carmat raised €50m in equity in 2016, which we estimate can finance operations into H118.

INDUSTRY OUTLOOK

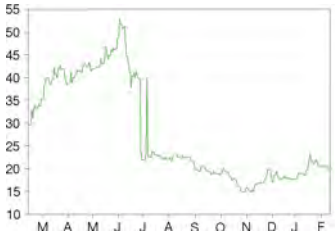
The Carmat artificial heart is being developed as a permanent replacement or destination therapy (DT) for chronic heart failure or acute myocardial infarction patients, who do not have access to a human donor heart. Despite the high worldwide prevalence of heart failure (c 100,000 patients), the shortfall 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)
2014	0.0	(19.4)	(20.3)	(414.0)	N/A	N/A
2015	0.0	(19.4)	(20.6)	(381.0)	N/A	N/A
2016e	0.0	(22.0)	(21.9)	(335.0)	N/A	N/A
2017e	0.0	(22.0)	(21.8)	(368.0)	N/A	N/A

Sector: Pharma & healthcare

Price:	€19.73
Market cap:	€188m
Market	Euronext Brussels

Share price graph (€)



Company description

Celyad is developing C-Cure, an autologous Phase III stem cell therapy for chronic ischaemic heart disease. An innovative cell cancer CAR T-cell therapy, NKG2D, is in Phase I.

Price performance

%	1m	3m	12m
Actual	5.5	20.3	(37.3)
Relative*	6.7	17.0	(43.8)

* % Relative to local index

Analyst

Dr John Savin

Celyad (CYAD)

INVESTMENT SUMMARY

Celyad reported at the American Society of Haematology conference that the last treated patient from the three patient 30m cell dose NKR-2 cohort responded well showing unexpected clinical benefit with stable disease after 12 weeks, the company confirms that this patient is alive and doing well. Overall safety was good. The THINK Phase Ib trial is underway in five solid tumours plus AML and MM. Two patients, one colorectal, one pancreatic, have been recruited in Belgium to date. H116 accounts showed cash of €86m ($97m).

INDUSTRY OUTLOOK

The Japanese pharmaceutical company ONO has licensed its Celyad's allogeneic preclinical NKR-T cancer cell technology for Japan, Korea and Taiwan. ONO paid €11.25m cash with €270.75m possible in milestones plus royalties. US patent claims on allogeneic CAR T-cells have been upheld by the patent examiner. Celyad has retained Piper Jaffray to explore strategic alternatives (pertnering or externalisation) for its C-Cure cardiac stem cell therapy.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2014	0.1	(18.2)	(18.5)	(273.0)	N/A	N/A
2015	0.0	(28.6)	(28.4)	(326.0)	N/A	N/A
2016e	11.3	(25.4)	(25.2)	(270.0)	N/A	N/A
2017e	0.0	(31.3)	(31.3)	(336.0)	N/A	N/A

Sector: Pharma & healthcare

Price:	1020.0p
Market cap:	£502m
Market	LSE

Share price graph (p)

Company description

Consort Medical is an international medical devices business. Having acquired Aesica Pharmaceuticals for £230m in 2014, it now consists of Bespak's operations (inhalation, injection and other drug delivery technologies) and Aesica's CDMO businesses.

Price performance

%	1m	3m	12m
Actual	0.7	(6.3)	6.8
Relative*	0.6	(11.8)	(15.7)

* % Relative to local index

Analyst

Lala Gregorek

Consort Medical (CSRT)

INVESTMENT SUMMARY

Consort Medical is a full-service contract development and manufacturing operation (CDMO) that operates across most areas of the pharmaceutical supply chain. Bespak's strength in high-margin disposable drug delivery devices - with particular strength in respiratory and injectables - is complemented by Aesica's services from drug manufacture to finished product packaging. Consort Medical capitalises on the growing trend for drug majors to outsource more of their non-core activities to specialist providers, as it addresses more of the development and manufacturing functions while also striving to build operational scale.

INDUSTRY OUTLOOK

Management has positioned Consort Medical to generate sustainable revenue and profit growth, with the latter targeted at a double-digit rate. Improvements in operating efficiencies, coupled with investment in innovation and development capabilities, has laid the foundation for establishing a broader range of contract services.

Y/E Apr	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2015	184.8	33.2	22.7	47.8	21.3	18.8
2016	276.9	47.6	32.3	57.6	17.7	10.6
2017e	290.2	51.3	34.8	58.0	17.6	13.4
2018e	305.9	55.2	37.2	62.1	16.4	10.1

Sector: Pharma & healthcare

Price:	€5.44
Market cap:	€42m
Market	Euronext Paris

Share price graph (€)

Company description

Crossject develops new therapeutic entities (supergeneric) 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	20.1	(16.2)	(23.6)
Relative*	21.0	(21.8)	(35.9)

* % 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: a multi-step injection process, difficulty in performing the injection correctly and convenience.

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	3.1	(4.2)	(6.3)	(80.59)	N/A	N/A
2017e	0.0	(9.5)	(10.7)	(125.75)	N/A	N/A

Sector: Pharma & healthcare

Price:	8.1p
Market cap:	£22m
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	(3.0)	(5.8)	(68.1)
Relative*	(3.1)	(11.4)	(74.9)

* % Relative to local index

Analyst

Lala Gregorek

e-Therapeutics (ETX)

INVESTMENT SUMMARY

e-Therapeutics (ETX) has appointed a new CEO, Dr Raymond Barlow, who will join the company by 1 May 2017. He brings significant R&D and business development experience, which will be invaluable in driving ETX to the next stage of its evolution. Following its 2016 strategic review, ETX's near- to mid-term focus is on deriving value from its proprietary network pharmacology discovery platform. Potential deals from late 2017 would provide external validation for the platform and differentiated discovery approach, and generate revenues. Portfolio rationalisation secures ETX's funding runway into early 2019; deal flow would extend this. Preclinical data on the five core discovery assets should stimulate interest from potential partners/collaborators. Deals and data are the next key catalysts.

INDUSTRY OUTLOOK

Network pharmacology could potentially revolutionise drug discovery and shorten the path to market by minimising technical risks and drug development costs. e-Therapeutics is well positioned, with limited direct competition and growing industry interest in systems biology-based multi-target approaches to drug discovery.

Y/E Jan	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2015	0.0	(10.0)	(9.7)	(2.9)	N/A	N/A
2016	0.0	(11.3)	(11.1)	(3.2)	N/A	N/A
2017e	0.0	(13.4)	(13.2)	(4.0)	N/A	N/A
2018e	0.0	(8.9)	(8.9)	(2.7)	N/A	N/A

Sector: Pharma & healthcare

Price:	€7.46
Market cap:	€993m
Market	FRA

Share price graph (€)

Company description

Evotec is a drug discovery alliance and development partnership company that provides outsourcing solutions to pharmaceutical companies, among others, Bayer, CHDI, Janssen, Pfizer and Sanofi. It has operations in Germany, France, the UK and the US.

Price performance

%	1m	3m	12m
Actual	(5.9)	44.0	146.5
Relative*	(6.6)	31.2	90.5

* % Relative to local index

Analyst

Dr Jonas Peciulis

Evotec (EVT)

INVESTMENT SUMMARY

Major recent news was Novo's, part of Novo Nordisk Foundation, 8.9% stake in Evotec established after investing some €90.3m during a private placement in February 2017. This marks a progression of Evotec's fine-tuned model of an established drug discovery services business combined with advancing innovation in-house and with partners in collaborations or equity investments. Evotec posted better than expected 9M16 results with 37% total and 30% base revenue (excluding milestones, upfronts and licences) increases year-on-year underpinned by the continued growth of the company's core drug discovery services business. 2016 guidance was reiterated with double-digit base revenue growth of >15% and adjusted EBITDA to more than double. In December, Evotec completed the proposed acquisition of UK listed ADME-Tox specialist Cyprotex with expected cash outlay of GBP55.4m (shares and repayment of debt). Cyprotex H116 sales were GBP8.7m and Evotec expects the deal to be accretive to EBITDA in 2017. We are updating our estimates.

INDUSTRY OUTLOOK

Evotec is a healthcare company that provides high-quality drug discovery services to the pharmaceutical industry and has collaborations with academic institutions to create novel drug discovery programmes.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2014	89.5	7.7	(0.7)	(1.96)	N/A	N/A
2015	127.7	8.7	1.2	(1.11)	N/A	60.1
2016e	N/A	N/A	N/A	N/A	N/A	N/A
2017e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price:	A$0.06
Market cap:	A$45m
Market	ASX

Share price graph (A$)

Company description

Factor Therapeutics is an Australian biotechnology company that specialises in the development and manufacture of biologics for advanced wound care applications. Its strategy is to use targeted growth factors to renew the wound environment and promote healing.

Price performance

%	1m	3m	12m
Actual	6.9	(17.3)	53.1
Relative*	7.7	(22.5)	28.0

* % Relative to local index

Analyst

Dr Dennis Hulme

Factor Therapeutics (FTT)

INVESTMENT SUMMARY

Factor is developing VF001 as a treatment for moderately severe ulcers that can be used in a community setting, not just in specialty wound clinics. VF001 is a synthetic protein combining an extracellular matrix protein and a growth factor which is being investigated in a randomised Phase IIb trial in a 168 patients with venous leg ulcers (top line data due Q417). VF001 was safe and well tolerated in an open-label Phase II trial in 53 patients with venous leg ulcers. Factor has revised its development strategy and will seek approval in the US in addition to Europe. US approval will require a randomised Phase IIb and pivotal Phase III trials, but the Phase IIb trial should provide sufficient safety data to support a filing in Europe. The company is preparing a Phase II IND submission for VF001 in diabetic foot ulcers (progress update due in March). Factor has commenced a preclinical development program to evaluate vitronectin-targeted growth factors in ocular wound care, with a potential PoC readout in July.

INDUSTRY OUTLOOK

Chronic wounds impose substantial costs on the healthcare system. The US$8.5bn global advanced wound care market is expected to grow at 4-5% per year, driven by an ageing population and rising incidence of ailments such as diabetes.

Y/E Jun	Revenue (A$m)	EBITDA (A$m)	PBT (A$m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.4	(7.1)	(7.1)	(4.03)	N/A	N/A
2016	0.4	(4.1)	(4.1)	(3.04)	N/A	N/A
2017e	2.6	(5.8)	(5.4)	(0.75)	N/A	N/A
2018e	1.8	(4.7)	(4.6)	(0.63)	N/A	N/A

Sector: Pharma & healthcare

Price:	41.5p
Market cap:	£8m
Market	AIM

Share price graph (p)

Company description

Genedrive has a profitable contract services business and an emerging clinical biomarker technology.

Price performance

%	1m	3m	12m
Actual	(30.8)	(33.6)	(63.1)
Relative*	(30.9)	(37.6)	(70.9)

* % Relative to local index

Analyst

Dr John Savin

Genedrive (GDR)

INVESTMENT SUMMARY

genedrive plc, previously Epistem plc, is establishing itself as a molecular diagnostics company. The Company sells its TB test in India through Xcelris. However, sales of the TB assay in H1 FY17 were "challenging" and Xcelrisis has not bought any further genedrive units. There are also sample preparation issues with the TB test that are being resolved. However, due to a US defense contract, revenues of the Genedrive division in H1FY17 were £1.2m (up from £0.5m after a contract ended) out of £2.8m overall. Cash on 31 December 2016 was £5.7m after a July net £6.05m placing. Our forecasts are under review.

INDUSTRY OUTLOOK

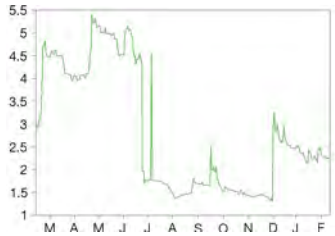
genedrive believes its Genedrive system enables accurate, point-of-need low cost testing for TB. A Hepatitis C test is expected by genedrive to gain CE-Marking but is not yet available. A test to determine response to Peg-IL2 Hepatitis C therapy is available. The profitable CRO Division is being sold.

Y/E Jun	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2015	4.5	(3.7)	(3.4)	(30.2)	N/A	N/A
2016	5.1	(4.2)	(6.5)	(56.2)	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:	€2.24
Market cap:	€35m
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 is subject to the approval of Genticel's shareholders at a general meeting to be held by 28 February 2017.

Price performance

%	1m	3m	12m
Actual	(3.0)	56.6	(31.3)
Relative*	(2.3)	46.2	(42.4)

* % Relative to local index

Analyst

Juan Pedro Serrate

Genticel (GTCL)

INVESTMENT SUMMARY

Subject to Genticel's shareholders approval on 28th February 2017, Genticel and Genkyotex will merge to form a new combined entity. Genkyotex is a biotech company focused on NOX science and is developing small molecule NOX inhibitors for fibrosis and inflammation. Lead product GKT831 will start a Phase II clinical trial in primary biliary cholangitis (PBC) in H117 with data in 2018. Second product GKT771 will start a Phase I study in H217 and focus on inflammation and angiogenesis. The company also has a portfolio of early stage NOX inhibitors for oncology, hearing loss and neurology indications. Genticel continues its partnership with the Serum Institute of India Ltd (SIIL) which involves up to $57m of milestone payments and single-digit royalties on net sales. Estimated cash of the combined entity is €27m in early 2017, sufficient until 2018.

INDUSTRY OUTLOOK

The new company will focus 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	0.0	(10.9)	(10.8)	(78.1)	N/A	N/A
2015	0.2	(11.4)	(11.2)	(72.1)	N/A	N/A
2016e	N/A	N/A	N/A	N/A	N/A	N/A
2017e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price:	US$128.23
Market cap:	US$3232m
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	3.6	(1.3)	194.0
Relative*	1.5	(7.6)	135.0

* % 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. We expect an NDA filing for both Dravet and LGS in H117 and a filing in the EU in H217. They have also recently commenced a Phase III 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 (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2014	30.0	(17.0)	(18.3)	(6.4)	N/A	N/A
2015	28.5	(54.6)	(55.8)	(17.6)	N/A	N/A
2016e	8.8	(94.4)	(95.2)	(29.9)	N/A	N/A
2017e	11.4	(84.0)	(85.0)	(25.6)	N/A	N/A

Sector: Pharma & healthcare

Price:	2140.0p
Market cap:	£1299m
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	(6.7)	13.4	(2.7)
Relative*	(6.8)	6.6	(23.2)

* % 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. We expect progress of the mid- to late-stage pipeline during 2017-18 (including US and China regulatory filings) to catapult the company into the international spotlight. The pipeline is progressing well, material clinical results are expected during the coming year. The company has successfully raised net proceeds of approximately US$95.9m via a secondary listing of ADRs on the NASDAQ exchange. PBT excludes the earnings contributions from JVs, which in 2015 reported at $22.57m (as equity in investees, net of tax). Net cash as of June 30th 2016 is $80.6m.

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)
2014	87.3	(17.0)	(20.0)	(17.8)	N/A	168.4
2015	178.2	(7.8)	(10.5)	14.6	183.3	N/A
2016e	196.7	(51.0)	(55.1)	6.3	424.8	N/A
2017e	226.0	(52.7)	(58.0)	(43.9)	N/A	N/A

Sector: Pharma & healthcare

Price:	€0.96
Market cap:	€34m
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	(4.0)	21.5	15.7
Relative*	(3.3)	13.4	(3.0)

* % Relative to local index

Analyst

Juan Pedro Serrate

Hybrigenics (ALHYG)

INVESTMENT SUMMARY

Hybrigenics has adopted a development strategy with vitamin D3 derivative inecalcitol, first 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. The investment case rests on inecalcitol's potential to enhance rather than replace approved therapies, particularly with inecalcitol's benign safety profile. Our peak sales estimate is US$769m. Cash at end June 2016 stood at €8.4m.

INDUSTRY OUTLOOK

An international Phase II study in AML has started recruiting patients in France and the US in H2 2016. Interim Phase II data are expected in late 2016 or early 2017 in CML. The collaboration with Servier on ubiquitin-specific proteases is ongoing and the company received a milestone payment of €1.5m during H116. Hybrigenics has presented in vitro results on inecalcitol in multiple myeloma and acute myeloid leukemia on 4th December at the annual ASH meeting in San Diego, USA.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2014	6.8	(2.1)	(2.2)	(8.5)	N/A	N/A
2015	6.5	(3.8)	(3.9)	(11.4)	N/A	N/A
2016e	7.5	(4.3)	(4.2)	(11.8)	N/A	N/A
2017e	8.0	(4.4)	(4.4)	(12.4)	N/A	N/A

Sector: Pharma & healthcare

Price:	SEK98.50
Market cap:	SEK1655m
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	6.2	4.8	262.2
Relative*	2.5	(3.1)	193.5

* % 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. Pancreatic cancer is rare and difficult to treat, with a five-year survival rate of c 5%; early diagnosis could improve this to c 50%. On the back of positive retrospective data (PanCan-d discriminated healthy individuals from those with pancreatic cancer with 96% accuracy) Immunovia intends to start a prospective trial in high-risk patients in Q416. 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 90% accuracy. Cash at June 2016 was SEK59.7m cash plus SEK28m from Horizon 2020. The company raised SEK218.6m in September-October 2016.

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 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)
2014	0.4	(8.7)	(8.9)	(80.0)	N/A	N/A
2015	0.2	(7.1)	(7.4)	(65.0)	N/A	N/A
2016e	0.2	(10.4)	(10.2)	(69.0)	N/A	N/A
2017e	0.2	(10.8)	(10.7)	(64.0)	N/A	N/A

Sector: Pharma & healthcare

Price:	NIS17.98
Market cap:	NIS206m
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	(8.8)	(8.0)	25.8
Relative*	(7.7)	(9.6)	20.8

* % 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. The company currently has two disclosed development programmes: AP-CDLD, a controlled release formulation of carbidopa and levodopa for Parkinson's in Phase III; and AP-ZP, a controlled release formulation of zaleplon for insomnia ready to enter Phase III though awaiting a strategic partner before doing so.

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 (NISm)	EBITDA (NISm)	PBT (NISm)	EPS (NIS)	P/E (x)	P/CF (x)
2014	0.0	(22.8)	(20.4)	(4.22)	N/A	N/A
2015	0.0	(32.4)	(27.9)	(3.58)	N/A	N/A
2016e	0.0	(54.9)	(50.6)	(4.31)	N/A	N/A
2017e	0.0	(55.4)	(51.6)	(4.18)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$1.09
Market cap:	US$4m
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	0.0	(37.7)	(61.1)
Relative*	(2.0)	(41.7)	(68.9)

* % 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), with preliminary data expected before the end of the year. Preclinical safety data was recently published in Nature. 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 $8m in sales and $1.7m in underlying operating profit in 2015.

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 (fd) (c)	P/E (x)	P/CF (x)
2014	7.0	(9.1)	(8.7)	(970.82)	N/A	N/A
2015	7.6	(5.0)	(4.6)	(129.29)	N/A	N/A
2016e	7.5	(5.1)	(4.8)	(126.38)	N/A	N/A
2017e	8.3	(5.5)	(6.0)	(157.12)	N/A	N/A

Sector: Pharma & healthcare

Price: €8.31
Market cap: €116m
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) is in preclinical; a Phase I/II will start in H216.

Price performance

%	1m	3m	12m
Actual	(1.7)	(18.9)	(21.2)
Relative*	(2.7)	(25.5)	(36.5)

* % 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 is leveraging 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 is aiming for accelerated filing of ATIR101 with the European Medicines Agency (EMA) in Q117. A Phase III trial has started in February 2017. ATIR201 has started a Phase I/II trial with data expected in H217. Cash at end June 2016 was €23.7m, sufficient to fund operations until early 2018.

INDUSTRY OUTLOOK

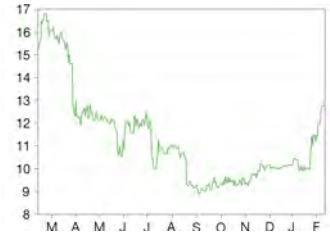
Kiadis's Theralux platform allows the infusion of lymphocytes from a partially matching (haploidentical) family member to the donor as it eliminates cells that could react against the host's immune cells and cause complications such as Graft vs Host Diasease (GVHD). Positive one year data (Event-Free Survival and Overall Survival) from Phase II clinical trial with ATIR101 was presented at the American Society of Hematology 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: CHF12.90
Market cap: CHF238m
Market Swiss Stock Exchange

Share price graph (CHF)



Company description

LifeWatch, headquartered in Switzerland and listed on SIX, specialises in advanced digital health systems and wireless remote diagnostic patient monitoring services (eg mobile cardiac telemetry, MCT). Its primary operations are in the US, but LifeWatch is working on expanding to new geographies and has established a JV in Turkey.

Price performance

%	1m	3m	12m
Actual	30.4	33.0	(14.7)
Relative*	30.3	24.7	(22.0)

* % Relative to local index

Analyst

Dr Jonas Peciulis

LifeWatch (LIFE)

INVESTMENT SUMMARY

LifeWatch specialises in ECG-based remote cardiac monitoring services and is one of the leading companies in this space in the US, with around four million patients monitored to date. The company had a solid FY15, with 8.3% adjusted revenue growth and its strongest EBITDA in six years. However, 2016 was turbulent, mainly as a result of costly but one-off legal settlements. Having streamlined its cost base and left the legacy issues behind it, LifeWatch is now well placed to capitalise on healthy market growth, returning to profitability in FY17. On 24 January 2017, existing LifeWatch's shareholder Aevis Victoria announced a public offer for all LifeWatch shares at a price of CHF10.0/share valuing the company at CHF185m. LifeWatch indicated that it will seek to solicit additional offers.

INDUSTRY OUTLOOK

Against the background of ageing populations, increasing prevalence of chronic diseases and rising healthcare costs, there is a compelling need for third-party remote service providers, which allow hospitals to outsource ambulatory cardiac monitoring. LifeWatch's competitive advantages include technology know-how, existing wide reimbursement coverage and live data centres, which all represent relatively high barriers of entry to the market.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2014	98.5	5.9	0.3	(16.8)	N/A	41.8
2015	88.6	(3.6)	(11.7)	(59.6)	N/A	17.3
2016e	113.3	0.2	(5.0)	(44.1)	N/A	N/A
2017e	123.3	11.5	5.5	19.1	67.3	30.6

Sector: Pharma & healthcare

Price:	€4.40
Market cap:	€113m
Market	FRA

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	(0.7)	1.9	(12.6)
Relative*	(1.4)	(7.1)	(32.4)

* % Relative to local index

Analyst

Dr Susie Jana

MagForce (MF6)

INVESTMENT SUMMARY

MagForce continues to drive forward its strategy to increase uptake of its NanoTherm therapy for cancer. NanoTherm is approved in Europe for brain cancer and commercial patients are being treated in Germany. Six NanoActivators are currently installed in Germany. In the US, an IDE for prostate cancer is filed and management is working with FDA to advance the IDE approval. The first clinical treatment site is operational (other sites are in development) and will be used in the short-term to provide the required pre-clinical study data. Note: Our financial forecasts have not been updated post publication of FY14 and FY15 results.

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)
2014	0.0	(8.0)	(7.9)	(32.8)	N/A	N/A
2015	2.6	(4.4)	(4.5)	(18.0)	N/A	N/A
2016e	N/A	N/A	N/A	N/A	N/A	N/A
2017e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price:	€13.23
Market cap:	€266m
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	(10.8)	56.6	82.2
Relative*	(11.4)	42.7	40.8

* % 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 others in 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 held €43.6m cash at Q316, following a €46m equity issue (5.6m shares at €8.30) in July 2015.

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)
2014	13.8	(2.0)	(5.3)	(42.3)	N/A	N/A
2015	6.8	(9.4)	(12.8)	(73.5)	N/A	N/A
2016e	7.1	(11.1)	(13.1)	(66.0)	N/A	68.3
2017e	10.7	(8.8)	(10.2)	(50.3)	N/A	N/A

Sector: Pharma & healthcare

Price:	A$1.51
Market cap:	A$607m
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	(12.0)	37.3	25.8
Relative*	(11.3)	28.6	5.2

* % Relative to local index

Analyst

Dr Dennis Hulme

Mesoblast (MSB)

INVESTMENT SUMMARY

Mesoblast expects to report the outcome of an interim efficacy analysis of a Phase III trial of its MPC-150-IM regenerative therapy in heart failure patients in Q117 - over half 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 currently in pivotal studies: MSC-100-IV cleared an interim futility analysis in a Phase III in children with GvHD - full results are expected in 2017; 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 at 31 December of US$33.9m has since been boosted by a US$21.7m equity investment in January under the terms of the agreement with Mallinckrodt. Mesoblast has put in place a US$90m equity finance facility which will extend its funding runway.

INDUSTRY OUTLOOK

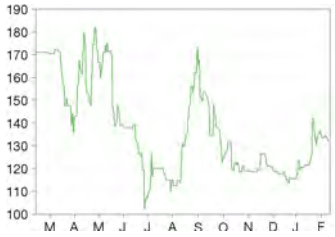
Mesoblast is the leading mesenchymal stem cell development company, with two platforms (MPCs, MSCs) and nine clinical candidates in Phase II and III. Alliances with JCR and Lonza underpin the key programmes.

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	6.8	(80.3)	(81.0)	(21.24)	N/A	N/A
2018e	9.0	(80.3)	(82.6)	(21.65)	N/A	N/A

Sector: Pharma & healthcare

Price:	132.0p
Market cap:	£64m
Market	LSE

Share price graph (p)



Company description

Midatech Pharma is an ambitious speciality pharmaceutical company, founded in 2000. The patented gold nanoparticle technology platform is developing therapeutics for several diseases such as diabetes and various cancers.

Price performance

%	1m	3m	12m
Actual	9.5	11.4	(22.4)
Relative*	9.4	4.8	(38.7)

* % Relative to local index

Analyst

Maxim Jacobs

Midatech Pharma (MTPH)

INVESTMENT SUMMARY

Midatech is a specialty pharma company with two key platforms focusing on commercializing and developing products in oncology, immunology & other therapeutic areas. The first is a drug conjugate delivery system based on gold nanoparticles. The second is a sustained release technology; proprietary microspheres that can be tailored to deliver a precise release profile for numerous drugs. An agreement is in place with Ophthotech to explore the use of the technology for sustained delivery formulations. It has also recently announced the dosing of a second patient for MTX110 in Diffuse Intrinsic Pontine Glioma, a very rare pediatric cancer. It currently markets a suite of oncology products in the US. Our forecasts are under review.

INDUSTRY OUTLOOK

The proprietary platforms develop products that address debilitating conditions with significant clinical needs. Applications that target larger market sizes are expected to be out-licensed for development and niche indications likely developed/marketed in-house.

Y/E Dec	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2014	0.2	(9.9)	(10.1)	(100.6)	N/A	N/A
2015	1.4	(12.7)	(11.0)	(34.9)	N/A	N/A
2016e	N/A	N/A	N/A	N/A	N/A	N/A
2017e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price:	€3.12
Market cap:	€106m
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	50.7	119.6	(20.2)
Relative*	49.6	100.1	(38.3)

* % 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, which is in four clinical trials. IMPALA is a 540-pt pivotal study in metastatic colorectal cancer (mCRC) maintenance; full enrollment is expected shortly. Recruitment has completed for the 100-patient Phase II trial (IMPULSE) in small-cell lung cancer (SCLC) and initial data is expected in mid-17. Final results in the Phase I TEACH study to treat HIV (the first non-cancer study for MGN1703) are now expected mid-2017. A 60-patient Phase I combination study of lefitolimod with Yervoy in solid tumours is now being conducted by MD Anderson, enrollment has started. Cash of €10.2m as of 30th September 2016 alongside the €21.1m raised through bond and capital increases in Q4 should be sufficient to complete recruitment of IMPALA and reach top-line data from IMPULSE.

INDUSTRY OUTLOOK

Results for IMPALA are expected in 2018/19. Final overall survival (OS) data from IMPACT (Phase II in mCRC), and initial OS data from IMPULSE (expected mid-17) 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)
2014	0.0	(17.0)	(17.0)	(1.01)	N/A	N/A
2015	0.0	(20.4)	(20.5)	(0.99)	N/A	N/A
2016e	0.0	(20.8)	(20.8)	(0.85)	N/A	N/A
2017e	0.0	(20.6)	(20.7)	(0.61)	N/A	N/A

Sector: Pharma & healthcare

Price:	€49.28
Market cap:	€1437m
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	1.0	12.9	36.8
Relative*	0.3	2.9	5.7

* % Relative to local index

Analyst

Maxim Jacobs

MorphoSys (MOR)

INVESTMENT SUMMARY

MorphoSys has a broad portfolio with over 100 programmes, 28 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 recently released blockbuster data for Guselkumab, an anti-IL-23 antibody, for psoriasis. Bimagrumab, partnered with Novartis, recently failed a Phase IIb/III trial in myositis, although other trials continue.

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)
2014	64.0	(1.8)	(1.6)	(1.3)	N/A	N/A
2015	106.2	21.4	22.1	62.8	78.5	N/A
2016e	48.6	(59.5)	(58.6)	(153.4)	N/A	N/A
2017e	56.0	(67.4)	(66.5)	(172.1)	N/A	N/A

Sector: Pharma & healthcare

Price:	€15.56
Market cap:	€248m
Market	Euronext Paris

Share price graph (€)

Company description

Nanobiotix is a French nanomedicine company developing radiotherapy enhancers for the treatment of cancer. Lead product NBTXR3 is in pivotal clinical development in STS in Europe and is partnered with PharmaEngine in Asia-Pacific.

Price performance

%	1m	3m	12m
Actual	(8.5)	14.3	8.0
Relative*	(7.8)	6.7	(9.5)

* % 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 preclinical results demonstrating NBTXR3's ability to enhance the immunogenicity of various cancers, which is the cornerstone idea behind the immuno-oncology (IO) products. We expect an eventful 2017, with several clinical trials reporting results and a potential CE mark approval in mid-2017 for use in soft tissue sarcoma (STS). Currently NBTXR3 is being investigated for a total of six indications in seven clinical trials including STS (Europe/Asia; Phase II/III; with PharmaEngine), prostate cancer (US, Phase I/II), liver cancers (Europe; HCC and metastases; Phase I/II), H&N cancer (Europe; Phase I/II) and two more trials run by PharmaEngine in Asia for rectal cancer (Phase I/II) and H&N cancer (Phase I/II).

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)
2014	2.8	(9.3)	(9.5)	(74.0)	N/A	N/A
2015	4.0	(16.7)	(17.0)	(120.0)	N/A	N/A
2016e	5.8	(16.3)	(16.7)	(112.0)	N/A	N/A
2017e	5.8	(39.1)	(40.0)	(253.0)	N/A	N/A

Sector: Pharmaceutical & healthcare

Price:	€0.83
Market cap:	€36m
Market	Alternext Paris

Share price graph (€)

Company description

Neovacs is a French biotech company focused on the development of active immunotherapies for the treatment of lupus and dermatomyositis. A Phase II programme with IFN-alpha-Kinoid in lupus is underway.

Price performance

%	1m	3m	12m
Actual	(17.8)	15.3	(22.3)
Relative*	(17.2)	7.6	(34.8)

* % Relative to local index

Analyst

Dr John Savin

Neovacs (ALNEV)

INVESTMENT SUMMARY

Neovacs is running a Phase IIb trial on its lead immunotherapy project, IFN-Kinoid (IFN-K) for lupus. The US arm is being expanded from 5 to 15 centers. Edison now expects the results from end of 2017; formerly mid-2017. Assuming trial success, CKD, the Korean partner, may start sales in 2018 but the main impact will be in 2019. Delays to the trial might cause the CKD €1.8m payment expected in 2017 to slip into 2018. An independent review recommended that the trial should continue. Partnering for other territories is now expected from mid-2018. Cash in June 2015 was €9.2m.

INDUSTRY OUTLOOK

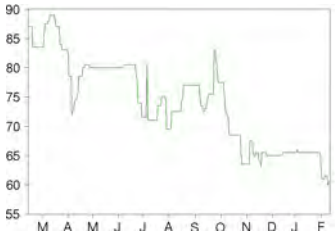
There is a programme in dermatomyositis (DM), an orphan skin and muscular condition that might start in 2017. Neovacs plans to evaluate INF Kinoid in Type 1 diabetes, has a new academic collaboration and has gained positive preclinical data; trials may start in H1 2018. VEGF-Kinoid for cancer and AMD could start Phase I in H117. Neovacs will produce IFN with 3P Biopharmaceuticals.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (fd) (c)	P/E (x)	P/CF (x)
2014	0.2	(9.6)	(9.8)	(31.6)	N/A	N/A
2015	1.2	(11.2)	(11.4)	(27.3)	N/A	N/A
2016e	0.2	(16.4)	(16.5)	(30.0)	N/A	N/A
2017e	0.0	(14.7)	(14.8)	(23.0)	N/A	N/A

Sector: Pcare & household prd

Price:	60.5p
Market cap:	£31m
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	(7.6)	(6.9)	(30.5)
Relative*	(7.8)	(12.5)	(45.1)

* % 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 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)
2014	0.0	(6.4)	(6.2)	(15.3)	N/A	N/A
2015	0.1	(11.5)	(11.3)	(24.4)	N/A	N/A
2016e	1.1	(15.0)	(14.7)	(22.1)	N/A	N/A
2017e	4.3	(12.9)	(13.2)	(20.2)	N/A	N/A

Sector: Pharma & healthcare

Price:	CHF23.50
Market cap:	CHF371m
Market	Swiss Stock Exchange

Share price graph (CHF)

Company description

Newron is a CNS-focused biotech. Safinamide/Xadago (partnered with Zambon, US WorldMeds, Meiji Seika) for PD has been launched in Europe. The Sarizotan (Rett syndrome) pivotal trial STARS (Sarizotan Treatment of Apneas in Rett Syndrome) has initiated.

Price performance

%	1m	3m	12m
Actual	9.0	22.4	0.9
Relative*	9.0	14.8	(7.8)

* % 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 11 European countries; further launches are expected this year. It is now generating sales through commercial partner Zambon (ex-Japan/Asia). In the US, Xadago's NDA has been re-submitted (PDUFA date 21st March 2017). Other pipeline assets include sarizotan for Rett syndrome, the IND has been approved in the US and 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 (NW-3509) for schizophrenia (add-on to anti psychotics) is expected in March 2017 at the International Congress of Schizophrenia (top line preliminary data is encouraging). Newron recently raised CHF26.1m in a private placement that it expects will help fund operations through 2018.

INDUSTRY OUTLOOK

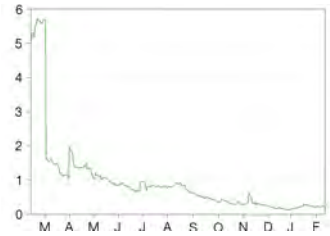
Parkinson's disease is a growing market. Xadago could have a unique position, with once-a-day dosing and a clean safety profile.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2014	1.6	(9.1)	(8.6)	(62.72)	N/A	N/A
2015	2.4	(17.6)	(18.3)	(117.21)	N/A	N/A
2016e	2.1	(23.6)	(23.3)	(147.51)	N/A	N/A
2017e	6.4	(11.7)	(11.3)	(71.77)	N/A	N/A

Sector: Pharma & healthcare

Price: €0.23
Market cap: €13m
Market NASDAQ OMX First North

Share price graph (€)



Company description

Nexstim sells a non-invasive brain stimulation technology (nTMS) used as a diagnostic device for brain surgery planning (NBS System). The therapy system (NBT) failed in Phase III for stroke but an FDA submission is planned

Price performance

%	1m	3m	12m
Actual	18.7	(35.4)	(95.6)
Relative*	18.5	(38.8)	(96.3)

* % Relative to local index

Analyst

Dr John Savin

Nexstim (NXTMH)

INVESTMENT SUMMARY

Nexstim has announced that the FDA has agreed a 60 patient additional study using a different sham comparator. This could allow de novo 510(k) approval by Q4 2018. Nexstim is financed until early 2018 due to a SEDA and loan deal with Bracknor and Sitra; since 18 August, €8.8m has been raised. June 2016 cash was €1.8m. Cost savings of €2.3m/year have been implemented. The Nexstim Board has in error exceeded its authorisation by issuing 48.90m shares to Bracknor and Sitra instead of the maximum number of 33.30m. The Board has in error also issued without authorisation special rights over 31.17m shares (as yet not issued). An EGM will be held on 20 February to resolve the matter. FY16 results are expected on 28 Feb.

INDUSTRY OUTLOOK

Nexstim has developed a technology platform for diagnosis (NBS) and treatment (NBT) of vital motor and speech cortices in the brain. The system is CE marked and can be sold in the EU. Three US distributors covering 21 states have now been appointed.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2014	2.2	(7.4)	(10.2)	(143.0)	N/A	N/A
2015	2.5	(10.0)	(9.6)	(119.0)	N/A	N/A
2016e	2.1	(7.7)	(8.3)	(91.0)	N/A	N/A
2017e	2.6	(5.2)	(5.4)	(40.0)	N/A	N/A

Sector: Pharma & healthcare

Price: A$0.08
Market cap: A$41m
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	(7.7)	0.0	(20.0)
Relative*	(7.0)	(6.3)	(33.1)

* % Relative to local index

Analyst

Dr Dennis Hulme

Novogen (NRT)

INVESTMENT SUMMARY

Novogen is developing three groups of anti-cancer compounds, including GDC-0084, a phase II-ready PI3K inhibitor licensed from Genentech that is intended for glioblastoma. To move forward with this programme, the company has acquired neuro-oncology company Glioblast for AU$2.1m plus milestones. The company will transfer the IND from Genentech and design the Phase II study in the upcoming months. 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. Its lead anti-tropomyosin drug, Anisina, shows strong synergy with SoC anti-mitotic vinca alkaloid drugs. Anisina has orphan drug designation for neuroblastoma by the US FDA. The company has AU$33.4m cash at June 2016 and initiated a 60-patient Phase I trial of Cantrixil in ovarian cancer in December 2016 and Anisina is on track to enter the clinic in 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 anti-tropomyosins (ATM). SBP compounds show potent activity against cancer stem cells and have potential application in degenerative diseases.

Y/E Jun	Revenue (A$m)	EBITDA (A$m)	PBT (A$m)	EPS (c)	P/E (x)	P/CF (x)
2015	1.6	(7.6)	(8.4)	(2.99)	N/A	N/A
2016	3.7	(11.3)	(11.6)	(2.84)	N/A	N/A
2017e	4.9	(20.4)	(19.9)	(4.64)	N/A	N/A
2018e	4.7	(31.8)	(31.6)	(7.36)	N/A	N/A

Sector: Pharma & healthcare

Price:	€2.43
Market cap:	€114m
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	(8.6)	3.4	(10.3)
Relative*	(8.0)	(3.5)	(24.8)

* % Relative to local index

Analyst

Dr Jonas Peciulis

Onxeo (ONXEO)

INVESTMENT SUMMARY

According to recent news, ReLive, the 390-patient Phase III trial with Livatag for hepatocellular carcinoma, which began in 2012, is now fully enrolled. The preliminary efficacy data are expected in mid-2017. With its Q316 results, Onxeo reported that other R&D projects are progressing according to plan, including the development of the first-in-class AsiDNA, a signal-interfering DNA repair technology, which should move into clinic in 2017. A preclinical study showed that AsiDNA could potentially be combined with existing PARP inhibitors. Onxeo's third lead asset, Beleodaq, is already launched in the US with partner Spectrum for relapsed/refractory peripheral T-cell lymphoma (r/r PTCL), generating royalty income for Onxeo. In September Onxeo raised gross €12.5m boosting its cash position to around €34m at end Q316.

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 incentives for drug development, as well as support 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)
2014	22.1	(4.5)	0.2	(5.03)	N/A	N/A
2015	3.5	(20.4)	(20.0)	(43.53)	N/A	N/A
2016e	3.9	(21.2)	(21.0)	(47.54)	N/A	N/A
2017e	7.9	(17.5)	(17.5)	(37.39)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$5.12
Market cap:	US$75m
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	51.9	127.6	(69.0)
Relative*	48.8	113.0	(75.2)

* % 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 was launched in South Korea by partner Kwang Dong. Partner Valeant has launched in 5 CEE countries so far and will launch in a further 6 countries by year end. It was launched in Spain through partner ROVI in January.

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 (fd) (c)	P/E (x)	P/CF (x)
2014	55.5	(30.7)	(37.5)	(317.36)	N/A	2.3
2015	24.5	(60.3)	(67.3)	(523.81)	N/A	N/A
2016e	32.6	(138.1)	(141.8)	(970.41)	N/A	N/A
2017e	87.3	(88.1)	(103.0)	(672.25)	N/A	N/A

Sector: Pharma & healthcare

Price: SEK33.30
Market cap: SEK1150m
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.

Price performance

%	1m	3m	12m
Actual	(13.1)	(25.8)	(24.7)
Relative*	(16.1)	(31.4)	(39.0)

* % Relative to local index

Analyst

Lala Gregorek

Orexo (ORX)

INVESTMENT SUMMARY

Orexo delivered continued Zubsolv and Abstral revenue growth in FY16, a maiden positive FY EBITDA, a fifth consecutive quarter of positive operating cash flow and an improved balance sheet post a SEK99m bond repurchase. FY17 guidance is for positive EBITDA and continued Zubsolv US revenue growth. However, IP infringement litigation remains a stock overhang. The court ruling on Orexo's '996 Zubsolv patent precludes Actavis generic launch before September 2019. Zubsolv's IP portfolio includes patents extending to 2032 - the newly granted '900 and '421, with an appeal outcome on the invalidity of the '330 patent expected around end-2017 - representing significant hurdles ahead of generic launch. News flow for FY17 includes potential EMA Zubsolv approval (Q417) and new product opportunities (new pipeline project(s) and new commercial product for promotion by the US Zubsolv sales force). Forecasts are under review following FY16 results.

INDUSTRY OUTLOOK

The US buprenorphine/naloxone market is worth >$2bn. 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	39.6	6.2
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: €4.38
Market cap: €125m
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	(4.9)	46.4	28.8
Relative*	(4.2)	36.7	11.8

* % 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) partnered with Roche, which took over further development after Oryzon delivered positive data from the Phase I/IIa in acute leukaemia in December 2016. Roche has also initiated a Phase I trial with ORY-1001 in small cell lung cancer. Oryzon's second product, ORY-2001, targets Alzheimer's disease (AD) and has entered a Phase I trial in early 2016. Preclinical data also support its use in multiple sclerosis. ORY-3001 has been recently revealed as the third product to enter pre-clinical development in non-oncological indications.

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)
2014	15.5	11.7	11.3	48.32	9.1	8.4
2015	7.2	0.7	(0.1)	(0.58)	N/A	99.7
2016e	4.8	(3.8)	(4.9)	(15.79)	N/A	N/A
2017e	2.8	(5.3)	(6.2)	(21.85)	N/A	N/A

Sector: Pharma & healthcare

Price:	4.1p
Market cap:	£127m
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	1.2	14.7	(41.4)
Relative*	1.1	7.9	(53.8)

* % Relative to local index

Analyst

Dr Susie Jana

Oxford BioMedica (OXB)

INVESTMENT SUMMARY

We expect pipeline focus in the near term as OXB aims to optimise development via out-licensing or externally funded SPVs; Phase I/II studies for OXB-102 (Parkinson's disease), OXB-202 (corneal graft rejection) and OXB-302 (CAR-T 5T4) for solid cancers. OXB's strategy takes into account the balance of risk versus reward for stakeholders (against the backdrop of the significant financial resources required over the next two to three years to advance OXB's assets to the next stage). The expansion of the manufacturing capacity for third parties (e.g. Novartis's CTL019) is complete; with Novartis stating an early 2017 filing for CTL019 (positive data recently presented at ASH), Oxford should start earning royalties and substantial manufacturing fees (up to $76m over three years). Additional deals including the partnership with Orchard Therapeutics add to this growing revenue stream. We predict a cash runway beyond 2017; further funding and value may arise from additional manufacturing or IP licensing deals.

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)
2014	13.6	(9.5)	(10.4)	(0.41)	N/A	N/A
2015	15.9	(12.5)	(16.6)	(0.49)	N/A	N/A
2016e	27.5	(6.8)	(13.6)	(0.34)	N/A	N/A
2017e	33.6	(1.0)	(8.7)	(0.15)	N/A	N/A

Sector: Pharma & healthcare

Price:	NZ$0.50
Market cap:	NZ$191m
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	(13.8)	8.7	19.1
Relative*	(14.6)	3.5	5.1

* % 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)
2015	3.6	(10.5)	(11.1)	(3.5)	N/A	N/A
2016	6.4	(14.9)	(15.5)	(4.1)	N/A	N/A
2017e	11.4	(6.7)	(7.4)	(1.9)	N/A	N/A
2018e	24.4	4.7	4.0	0.6	83.3	33.4

Sector: Pharma & healthcare

Price:	€2.52
Market cap:	€147m
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	(6.4)	1.4	87.1
Relative*	(7.1)	(7.6)	44.6

* % Relative to local index

Analyst

Dr Dennis Hulme

Paion (PA8)

INVESTMENT SUMMARY

Paion reported positive top-line results from the first of two US pivotal trials of ultra-short-acting anaesthetic remimazolam in procedural sedation, and has out-licensed US rights to Cosmo Pharmaceuticals for c €20m of cash, €42.5m potential milestones and a 20-25% royalty. In the pivotal trial 91% of patients in the remimazolam arm achieved the primary outcome vs 1.7% on placebo and 25% on midazolam. Recruitment in a second Phase III, in bronchoscopy patients, is expected to complete in Q217. While replacing midazolam is the primary target, planned changes in the US reimbursement of day procedures favouring less supervision by anaesthetists could further incentivise uptake of remimazolam. €30.1m cash at 31 December is sufficient to complete ongoing Phase III development and preparation of filing for procedural sedation in the US (we anticipate filing in 2018). Paion announced a €5m rights issue in February to fund a Japanese filing for remimazolam in general anaesthesia (we expect filing by mid-2018).

INDUSTRY OUTLOOK

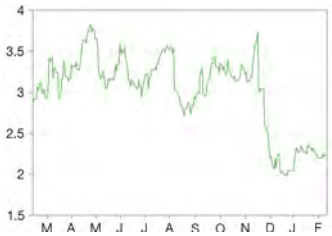
Remimazolam has important advantages over competing products, including fast onset and offset of action with lower risk of cardiopulmonary events than the standard of care midazolam and propofol, and a reversal agent exists if there is over sedation.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2014	3.5	(11.5)	(11.6)	(22.9)	N/A	N/A
2015	0.1	(34.1)	(34.0)	(55.7)	N/A	N/A
2016e	4.2	(26.5)	(26.5)	(41.7)	N/A	N/A
2017e	7.8	(7.3)	(7.3)	(10.2)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$2.26
Market cap:	US$374m
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	(3.4)	(34.7)	(22.6)
Relative*	(5.4)	(38.9)	(38.1)

* % 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 (of which they own >88%) on a high margin basis. This strategy allows investors to gain exposure in healthcare through a relatively low-risk, diversified vehicle. Weakness in debt and equity markets has led to more opportunities to invest for the company than ever.

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)
2014	581.2	546.3	501.3	203.66	1.1	1.2
2015	590.4	550.4	530.1	203.69	1.1	1.2
2016e	227.8	170.7	153.0	59.51	3.8	8.0
2017e	190.1	88.7	70.8	30.80	7.3	4.5

Sector: Pharma & healthcare

Price: €2.96
Market cap: €659m
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	3.3	20.5	64.7
Relative*	4.1	12.5	43.0

* % Relative to local index

Analyst

Dr Dennis Hulme

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. EMA acceptance of the Aplidin MAA means potential EU approval for multiple myeloma is on track for H217; a pivotal study is underway for Aplidin in angioimmunoblastic T-cell lymphoma, the lead US indication. Top-line data from the lurbinectedin (PM1183) Phase III in platinum-resistant ovarian cancer is due in H217. A second pivotal study is evaluating lurbinectedin in combination with doxorubicin in patients with small cell lung cancer. A Phase II in BRCA 1/2 breast cancer achieved a 41% ORR. In December 2016 PharmaMar licenced Japan rights for lurbinectedin to Chugai for €30m upfront, over €70m in potential milestones, plus double-digit royalties.

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)
2014	149.7	25.7	16.3	6.8	43.5	28.0
2015	162.0	19.3	6.5	3.2	92.5	64.5
2016e	169.5	(1.6)	(13.4)	(6.7)	N/A	N/A
2017e	180.1	56.5	45.1	19.5	15.2	12.1

Sector: Pharma & healthcare

Price: NOK42.40
Market cap: NOK914m
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	5.2	11.6	26.6
Relative*	4.8	3.1	0.2

* % Relative to local index

Analyst

Maxim Jacobs

Photocure (PHO)

INVESTMENT SUMMARY

Photocure specialises in photodynamic therapy. Its bladder cancer imaging product is sold as Hexvix in Europe and Cysview in the US. It improves detection rates and helps prolong recurrence-free survival. Photocure handles the marketing in Nordic countries and the US, while Ipsen is its marketing partner in the EU. Cevira is a Phase III-ready product for HPV-related diseases of the cervix and Visonac is a Phase III-ready product for acne. Both Cevira and Visonac are the subject of partnership discussions.

INDUSTRY OUTLOOK

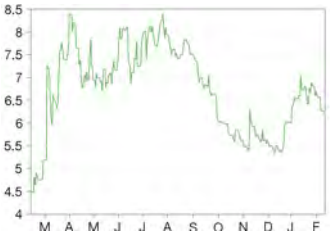
Photocure is a photodynamic therapy company focused on bladder cancer imaging, HPV-related diseases and acne. As its products typically are a combination of a drug and a device, hurdles for generics are typically higher than with other therapeutics.

Y/E Dec	Revenue (NOKm)	EBITDA (NOKm)	PBT (NOKm)	EPS (fd) (öre)	P/E (x)	P/CF (x)
2014	129.0	(4.2)	1.5	7.0	605.7	N/A
2015	134.7	(18.1)	(17.4)	(82.0)	N/A	N/A
2016e	134.9	(16.7)	(22.0)	(102.0)	N/A	N/A
2017e	150.4	(10.9)	(16.1)	(74.0)	N/A	403.0

Sector: Pharma & healthcare

Price:	€6.20
Market cap:	€79m
Market	Euronext Paris

Share price graph (€)



Company description

Pixium is a French medical device company developing retinal implants for patients with complete vision loss. Its lead product Iris is an epi-retinal implant scheduled for CE mark approval in mid-2016; a sub-retinal implant (Prima) is in pre-clinical.

Price performance

%	1m	3m	12m
Actual	(6.2)	4.2	30.5
Relative*	(5.5)	(2.7)	9.4

* % 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 restore vision 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 January 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 H117. Pixium held €17.3m in cash at 30 September 2016 and recently secured up to €11m in additional debt financing.

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)
2014	2.4	(10.8)	(11.6)	(118.43)	N/A	N/A
2015	3.3	(14.6)	(15.6)	(122.88)	N/A	N/A
2016e	2.9	(13.3)	(14.2)	(111.13)	N/A	N/A
2017e	5.5	(12.9)	(15.3)	(119.61)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$4.23
Market cap:	US$406m
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	(30.5)	(28.3)	36.8
Relative*	(29.7)	(29.6)	31.4

* % 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 company has two products, PLX-PAD for the treatment of vascular disorders and PLX-R18 for hematologic disorders. The lead program is for critical limb ischemia (CLI), with a Phase III expected to start in 2017. Based on feedback from both the FDA and EMA, a single pivotal 250-patient study will be required for approval.

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	(34.0)	(31.8)	(31.96)	N/A	N/A
2018e	0.0	(39.9)	(39.3)	(38.32)	N/A	N/A

Sector: Pharma & healthcare

Price:	A$0.09
Market cap:	A$20m
Market	ASX

Share price graph (A$)

Company description

Prescient Therapeutics (previously Virax) is an ASX-listed biotechnology company focused on developing novel products for the treatment of cancer. It has two products, PTX-100 and PTX-200 in clinical development for a range of cancers.

Price performance

%	1m	3m	12m
Actual	9.4	(5.1)	0.4
Relative*	10.2	(11.1)	(16.0)

* % Relative to local index

Analyst

Dr Dennis Hulme

Prescient Therapeutics (PTX)

INVESTMENT SUMMARY

Prescient is developing two promising anti-cancer compounds that target major tumour survival pathways. The company's most advanced compound, PTX-200, is in Phase Ib/II trials in breast and ovarian cancers and acute myeloid leukaemia. The breast cancer study has identified the recommended Phase II dose, and researchers are recruiting an expansion cohort of 12 patients to better characterise the safety profile. A Phase Ib/II trial of the second drug, PTX-100, in Ras-mutated cancers is under consideration. Cash as of 31 December was A$9.5m. We are currently updating our model for FY16 results.

INDUSTRY OUTLOOK

PTX-200 is a specific inhibitor of Akt, a key component of one of the Ras signalling pathways. The three Ras genes in humans (HRAS, KRAS and NRAS) are the most common oncogenes in human cancer; mutations that permanently activate Ras are found in 20-25% of all human tumours. Celator Pharmaceuticals saw its stock price increase 10-fold after reporting positive results in a Phase III AML trial in March 2016, highlighting the strong interest in potential new AML drugs. Celator was subsequently acquired by Jazz Pharmaceuticals for c US$1.5bn.

Y/E Jun	Revenue (A$m)	EBITDA (A$m)	PBT (A$m)	EPS (c)	P/E (x)	P/CF (x)
2014	0.0	(1.8)	(1.8)	(5.94)	N/A	N/A
2015	0.3	(2.1)	(2.1)	(4.28)	N/A	N/A
2016e	0.2	(2.0)	(1.9)	(2.57)	N/A	N/A
2017e	0.3	(10.1)	(10.0)	(10.70)	N/A	N/A

Sector: Pharma & healthcare

Price:	A$0.04
Market cap:	A$73m
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	0.0	(16.7)
Relative*	0.7	(6.3)	(30.3)

* % 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, initial efficacy data from 15-patient dose-escalation phase expected mid-year) and in melanoma in combination with the anti-PD1 checkpoint inhibitor Keytruda (Phase I expected to fully recruit mid-year). Novartis and GSK are progressing clinical trials of partnered LAG-3 programmes, providing additional validation for the LAG-3 technology. Prima has expanded its LAG-3 pipeline with the addition of IMP761, a first-in-class LAG-3 agonist antibody in preclinical development which could potentially help treat autoimmune diseases. We are currently updating our model for FY16 results.

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)
2014	2.0	(14.0)	(13.3)	(1.1)	N/A	N/A
2015	1.3	(13.3)	(12.9)	(0.9)	N/A	N/A
2016e	2.2	(13.8)	(15.1)	(0.9)	N/A	N/A
2017e	1.1	(15.1)	(14.7)	(0.7)	N/A	N/A

Sector: Pharma & healthcare

Price:	€18.00
Market cap:	€147m
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	(2.3)	(3.7)	(15.9)
Relative*	(3.2)	(11.5)	(32.2)

* % 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. The Phase IIa study, SAPHIR, in early AD is now fully recruited with the full results including exploratory efficacy data due in Q217. Recently, Probiodrug announced positive results from the first combination study of PQ912 with the second product specific monoclonal antibody PBD-C06, which showed an additive effect in lowering toxic Abeta. The capital raise of €14.9m in October extends the cash runway well beyond the SAPHIR data readout, when Probiodrug may seek to partner PQ912.

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)
2014	0.0	(11.2)	(11.4)	(234.69)	N/A	N/A
2015	0.0	(13.3)	(13.5)	(196.10)	N/A	N/A
2016e	0.0	(14.3)	(14.2)	(181.58)	N/A	N/A
2017e	0.0	(11.0)	(11.0)	(134.70)	N/A	N/A

Sector: Pharma & healthcare

Price:	€5.92
Market cap:	€50m
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. In-human efficacy data are expected in June 2017.

Price performance

%	1m	3m	12m
Actual	(21.5)	(0.8)	(7.5)
Relative*	(20.9)	(7.5)	(22.5)

* % 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 with a completed and an ongoing Phase IIa study, respectively. This pathway has been implicated in patients with complicated hypertension including those who are resistant to other treatments (25%) and 52% of hypertensive African Americans.

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)
2014	0.3	(2.4)	(2.5)	(45.78)	N/A	N/A
2015	0.1	(4.3)	(4.5)	(54.70)	N/A	N/A
2016e	0.1	(5.1)	(5.3)	(53.71)	N/A	N/A
2017e	0.0	(5.1)	(5.3)	(52.01)	N/A	N/A

RedHill Biopharma (RDHL)

Sector: Pharma & healthcare

Price:	US$9.54
Market cap:	US$162m
Market	NASDAQ

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, while earlier stage assets also target various cancers. The most advanced products are RHB-105 for H. pylori infection, RHB-104 for Crohn's disease and multiple sclerosis and Bekinda for gastroenteritis and IBS-D.

Price performance

%	1m	3m	12m
Actual	(8.7)	(20.4)	9.5
Relative*	(10.6)	(25.5)	(12.5)

* % Relative to local index

Analyst

Dr Jonas Peciulis

INVESTMENT SUMMARY

In line with its "multiple shots on goal" strategy, RedHill has a broad R&D pipeline, but the most advanced assets focus on GI and inflammatory diseases. The three most advanced assets include RHB-105 for H. pylori infection (confirmatory Phase III to start in H117); RHB-104 for both Crohn's disease (second DSMB expected in Q217 and will include an option for early termination) and relapsing-remitting multiple sclerosis (positive data in Q416); and Bekinda for both gastroenteritis (top-line results expected in Q217) and diarrhoea-predominant irritable bowel syndrome (top line results mid-2017). On 27 December the company completed a successful $38m fund-raising and announced a co-promotion deal for Donnatal for irritable bowel syndrome and acute enterocolitis in the US, which may turn RedHill into a commercial-stage specialty pharma company.

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 always attract attention.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2014	7.0	(10.6)	(10.7)	(12.37)	N/A	N/A
2015	0.0	(22.0)	(21.1)	(19.03)	N/A	N/A
2016e	0.0	(25.2)	(25.1)	(19.67)	N/A	N/A
2017e	0.1	(33.0)	(32.9)	(25.81)	N/A	N/A

Regeneus (RGS)

Sector: Pharma & healthcare

Price:	A$0.15
Market cap:	A$32m
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	(13.9)	0.0	93.8
Relative*	(13.3)	(6.3)	62.0

* % Relative to local index

Analyst

Dr Dennis Hulme

INVESTMENT SUMMARY

Regeneus is developing and commercialising its adipose-derived mesenchymal stem cell technology for musculoskeletal conditions in animals and humans. In December 2016 Regeneus entered into a US$16.5m collaboration with AGC Asahi Glass (AGC) for manufacture of Progenza 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 in Japan. Recent Japanese legislation offers an accelerated path to market for regenerative medicine products. Regeneus also holds global rights to autologous cancer vaccine technologies for human (RGSH4K - Phase I began in Q215) and veterinary (Kvax) applications.

INDUSTRY OUTLOOK

Regeneus has firmed up its strategy to partner its product opportunities for development and commercialisation, allowing it to focus on early-stage product development. It has partnered with a top-5 global animal health company for development of CryoShot Canine, and will seek to identify wider applications of its off-the-shelf Progenza human stem cells, beyond the initial development for osteoarthritis.

Y/E Jun	Revenue (A$m)	EBITDA (A$m)	PBT (A$m)	EPS (c)	P/E (x)	P/CF (x)
2015	1.9	(9.8)	(6.6)	(3.15)	N/A	N/A
2016	1.7	(6.1)	(3.6)	(1.70)	N/A	N/A
2017e	11.7	3.6	6.1	2.89	5.2	5.0
2018e	7.3	(1.9)	0.6	0.27	55.6	36.7

Sector: Pharma & healthcare

Price:	2.6p
Market cap:	£81m
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	(1.9)	5.1	(10.4)
Relative*	(2.0)	(1.2)	(29.3)

* % Relative to local index

Analyst

Dr Linda Pomeroy

ReNeuron Group (RENE)

INVESTMENT SUMMARY

ReNeuron is funded (£60m in cash at 30 Sept 2016) to undertake pivotal studies with two cell therapy-based programmes. This includes the CTX neural stem cell programme (recently announced positive Phase II study data in stroke disability and ongoing six-patient Phase I for critical limb ischaemia) and the hRPC (human retinal progenitor cells) programme for retinitis pigmentosa (a 15-patient Phase I/II trial is underway in the US). ReNeuron has also announced promising early pre-clinical data for its exosome nanomedicine platform in oncology, with the first clinical target being glioblastoma multiforme. The company is constructing a GMP cell manufacturing and research facility in South Wales (funded by a £7.8m Welsh government grant).

INDUSTRY OUTLOOK

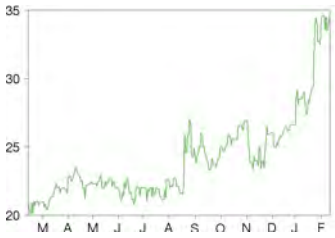
Stroke is a high-risk indication, but ReNeuron is attempting to demonstrate a meaningful reduction in disability that would offer a compelling case for further development and/or partnering. Initial three month follow-up data from its Phase IIa stroke study was presented at H117 results, which were sufficiently strong for the Company to plan to progress to a pivotal controlled clinical study in 2017. The hRPC programme has Orphan (EU/US) and Fast Track (US) designation with a potentially pivotal Phase II/III study planned for 2018.

Y/E Mar	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2015	0.0	(10.3)	(10.3)	(0.50)	N/A	N/A
2016	0.0	(13.6)	(12.8)	(0.44)	N/A	N/A
2017e	0.0	(23.5)	(23.1)	(0.64)	N/A	N/A
2018e	0.0	(28.4)	(28.2)	(0.78)	N/A	N/A

Sector: Pharma & healthcare

Price:	34.90PLN
Market cap:	PLN469m
Market	Warsaw Stock Exchange

Share price graph (PLN)



Company description

Selvita is a drug discovery services provider based in Poland. 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	20.8	45.4	66.2
Relative*	13.5	21.3	35.8

* % Relative to local index

Analyst

Dr Jonas Peciulis

Selvita (SLV)

INVESTMENT SUMMARY

Selvita is a rapidly emerging drug discovery and research services company. The company delivered on both fronts in 2016 with estimated sales to have grown a solid 21% y-o-y and an R&D milestone met after the FDA accepted an investigational new drug application for the company's lead drug candidate, SEL24, which now proceeds to Phase I/II. SEL24 is dual PIM/FLT3 inhibitor 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 potentially for colon cancer and other malignancies and is about to begin IND-enabling studies. Multiple collaborations signed with partners such as Merck KGaA, H3 Biomedicine (Eisai) and most recently joint venture with Epidarex Capital to form Nodthera validate Selvita's research capabilities. Cash of PLN27m at end of October 2016, bolstered by profits from research service contracts, is sufficient to fund current activities.

INDUSTRY OUTLOOK

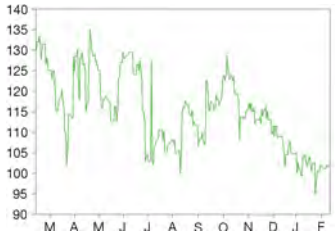
The profiles of SEL24 and SEL120 are potentially unique when compared to existing clinical-stage competitors and both candidates may offer efficacy and safety advantages. Contract research is a fiercely competitive, but still rapidly growing market and we believe Selvita's geographical location and lower 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)
2014	41.6	7.6	5.4	55.91	62.4	N/A
2015	56.1	10.2	7.6	83.58	41.8	N/A
2016e	67.6	7.6	5.0	37.69	92.6	N/A
2017e	76.9	10.7	6.0	43.72	79.8	N/A

Sector: Pharma & healthcare

Price:	101.8p
Market cap:	£71m
Market	AIM

Share price graph (p)



Company description

Silence Therapeutics is a leading UK RNA therapeutics development company, with proprietary RNA interference (RNAi) technology and delivery systems. It is expanding into targeted gene editing technology (using the CRISPR/Cas9 system) and non-liposomal conjugation delivery systems.

Price performance

%	1m	3m	12m
Actual	(2.4)	(10.0)	(24.6)
Relative*	(2.5)	(15.3)	(40.5)

* % Relative to local index

Analyst

Dr Linda Pomeroy

Silence Therapeutics (SLN)

INVESTMENT SUMMARY

Silence Therapeutics is a leading RNA therapeutics development company, with proprietary RNA interference (RNAi) technology and delivery systems. It has a broad genetic toolkit enabling the key areas of RNA therapeutics, siRNA (silencing genes) and mRNA (upregulating genes). It is able to use its platform to target a wide range of tissues and therefore potential indications. It is also applying its platform technology to gene editing, an area of high focus and potential. Silence already has a licence deal with Quark for its AtuRNAi technology, which has recently progressed into a Phase III clinical trial in delayed graft function (DGF) and Phase II for acute kidney injury (AKI). Silence held €47.6m in cash at H116, following a c £40m equity issue in 2015.

INDUSTRY OUTLOOK

RNA therapeutics is an increasingly high profile sector of the biotechnology industry. Improvements in technology and a growing body of clinical evidence has created a resurgence of interest in the sector. Developments in RNA therapeutics now offer a number of options, which are being used to target a number of disease areas. RNA therapies are potentially going to be in the market in the next couple of years.

Y/E Dec	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2014	0.0	(11.8)	(11.7)	(21.51)	N/A	N/A
2015	0.0	(9.6)	(9.4)	(10.38)	N/A	N/A
2016e	0.0	(11.2)	(11.1)	(13.95)	N/A	N/A
2017e	0.0	(14.0)	(14.1)	(17.77)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$4.09
Market cap:	US$85m
Market	NASDAQ

Share price graph (US$)

Company description

Sunesis Pharmaceuticals is a pharmaceutical company focused on oncology. The lead asset is Qinprezo, a chemotherapy for AML in the approval process in the EU. The company has also developed SNS-062, a BTK inhibitor for CLL for Imbruvica refractory patients currently in Phase I.

Price performance

%	1m	3m	12m
Actual	3.3	4.6	(2.6)
Relative*	1.2	(2.1)	(22.1)

* % 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 Qinprezo, a quinolone derivative for relapsed/refractory acute myeloid leukemia (AML) without the dose limiting cardiotoxicity of anthracyclines. The FDA discouraged submitting an NDA after it missed its primary endpoint, but significant potential remains in Europe where Qinprezo has data comparable to those used in other approvals. A decision by CHMP is expected by mid-2017. Sunesis is also advancing its clinical asset, 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. A Phase Ib/II is expected to begin in H117.

INDUSTRY OUTLOOK

Sunesis is an oncology company with a late-stage asset, potentially near European approval, as well as preclinical assets utilising promising targets, making it an attractive partner.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2014	5.7	(41.3)	(43.0)	(429.61)	N/A	N/A
2015	3.1	(35.8)	(36.7)	(301.72)	N/A	N/A
2016e	2.5	(36.9)	(38.4)	(244.53)	N/A	N/A
2017e	1.7	(47.0)	(48.7)	(239.79)	N/A	N/A

Sector: Pharma & healthcare

Price:	¥226.00
Market cap:	¥10516m
Market	Tokyo

Share price graph (¥)

Company description

SymBio is a 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 in-licensed from The Medicines Company.

Price performance

%	1m	3m	12m
Actual	(12.1)	1.8	21.5
Relative*	(12.3)	(9.4)	(0.6)

* % Relative to local index

Analyst

Dr Philippa Gardner

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. Treakisym is approved for r/r low grade NHL/MCL and during 2016 received approvals in CLL and first-line low grade NHL/MCL, which should help expand revenues. Rigosertib is in development for myelodysplastic syndromes and has started a pivotal Phase III global study; SymBio is enrolling patients in Japan and interim data are expected during H217. IONSYS is approved in the US and EU and is now undergoing a Phase III in Japan; SymBio is working towards approval in Japan by end 2019. Note: Our financial forecasts have not yet been updated following FY16 financial results (published 9 Feb 2017).

INDUSTRY OUTLOOK

SymBio is focused on in-licensing niche opportunities in hard-to-treat indications often overlooked by big pharma. Building its own commercial infrastructure in the future should help establish SymBio more firmly as a partner of choice in Asia-Pacific. 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 (¥)	P/E (x)	P/CF (x)
2015	1933.0	(2641.0)	(2640.0)	(81.61)	N/A	N/A
2016	2368.0	(2115.0)	(2317.0)	(59.00)	N/A	N/A
2017e	2290.0	(3295.0)	(3326.0)	(102.80)	N/A	N/A
2018e	2897.0	(3755.0)	(3802.0)	(117.51)	N/A	N/A

Sector: Pharma & healthcare

Price:	€0.69
Market cap:	€172m
Market	Euronext Brussels

Share price graph (€)

Company description

TiGenix is a Belgian-Spanish company using allogeneic adipose stem cells to aid healing of complex perianal fistulas in Crohn's disease (EU approval ongoing with Takeda as the European partner. Sepsis and cardiac stem cell therapies are in development

Price performance

%	1m	3m	12m
Actual	(4.8)	(18.4)	(25.8)
Relative*	(3.7)	(20.6)	(33.4)

* % Relative to local index

Analyst

Dr John Savin

TiGenix NV (TIGB)

INVESTMENT SUMMARY

TiGenix is set for a decisive 2017 with possible EU approval in H2 of the allogeneic stem cell therapy Cx601 to treat complex perianal fistulas in Crohn's disease. This will trigger a €15m milestone from Takeda, the European partner; Takeda views Cx601 as a breakthrough therapy. A Phase I/II trial using stem cells to control severe sepsis, a major unmet need, has just started. An interesting project is an acute cardiac stem cell therapy; full Phase I/II data is expected in H117. The 2016 US IPO raised €31m net.

INDUSTRY OUTLOOK

The 180-patient Phase I/II study, SEPCELL with placebo and active arms is underway. This will be in intensive-care patients with severe community-acquired bacterial pneumonia or other pneumonia. The dose will be 160m eASC given on the first and third days of treatment in addition to standard of care. In the ongoing cardiac stem cell trial after acute AMI, six-month initial data showed no mortality from any cause or major adverse cardiac events after 30 days.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2013	0.9	(12.4)	(14.8)	(10.8)	N/A	N/A
2014	0.8	(14.5)	(15.9)	(9.8)	N/A	N/A
2015e	1.8	(14.6)	(17.3)	(10.0)	N/A	N/A
2016e	2.1	(17.0)	(20.5)	(12.2)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$0.57
Market cap:	US$22m
Market	NASDAQ

Share price graph (US$)

Company description

Tonix is an emerging specialty pharmaceutical focused on psychiatric and neurological disorders. TNX-102 SL for fibromyalgia is the most advanced programme, entering Ph III. It is also being developed for PTSD.

Price performance

%	1m	3m	12m
Actual	(0.4)	23.8	(84.8)
Relative*	(2.5)	15.8	(87.8)

* % Relative to local index

Analyst

Maxim Jacobs

Tonix Pharmaceuticals (TNXP)

INVESTMENT SUMMARY

Tonix is a company focused on the development of TNX-102 SL for post-traumatic stress disorder (PTSD). Data for its 237-patient, Phase II proof-of-concept trial in PTSD were announced in May and showed a statistically significant benefit to patients in the primary endpoint at the high dose (5.6mg). The company is currently planning to initiate a Phase III trial in military-related PTSD in Q117 with another in predominantly civilian PTSD to follow. Breakthrough Therapy Designation was granted by the FDA for the entire PTSD indication allowing for intensive guidance from the agency, an organizational commitment involving senior managers and the submission of the NDA on a rolling basis.

INDUSTRY OUTLOOK

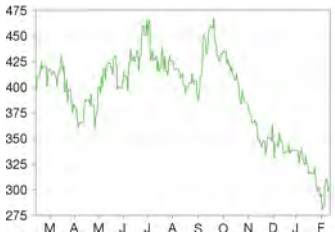
Tonix is an emerging specialty pharmaceutical company focused on psychiatric and neurological disorders.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2014	0.0	(27.7)	(27.6)	(277.0)	N/A	N/A
2015	0.0	(48.2)	(48.1)	(286.0)	N/A	N/A
2016e	0.0	(37.8)	(37.6)	(145.0)	N/A	N/A
2017e	0.0	(29.1)	(29.0)	(71.0)	N/A	N/A

Sector: Pharma & healthcare

Price:	299.5p
Market cap:	£483m
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	(8.1)	(17.8)	(28.4)
Relative*	(8.3)	(22.7)	(43.5)

* % Relative to local index

Analyst

Lala Gregorek

Touchstone Innovations (IVO)

INVESTMENT SUMMARY

Strong newsflow in late 2016 capped a year of momentum for Touchstone Innovations (IVO). PsiOxus' $936m deal with BMS for its next-generation 'armed' oncolytic virus (NG-348) was the largest deal for any IVO portfolio company, leap-frogging Crescendo's $790m collaboration with Takeda. At end-FY16, IVO had c£198.3m available for portfolio investment (end-July cash of £148.3m and a £50m EIB loan). IVO invested £66.9m in 33 portfolio companies in FY16 (FY15: £60.8m across 30), including seven new accelerated growth companies. FY16 net fair value loss was £56.2m: an unquoted £10.7m net fair value gain and a quoted £66.9m net fair value loss (£54.8m loss attributable to Circassia). The unquoted portfolio continues to progress, showing growth through fair value gains and investment activity. The eight-strong oncology portfolio could be a source of potential uplift in future years as these companies mature and approach value inflection points.

INDUSTRY OUTLOOK

The investment case rests on the hidden portfolio value and the success of investments in maturing companies. There is potential for significant value creation if 'exits' (IPO/M&A/licensing) are achieved at valuations exceeding the typically modest carrying values.

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	4.4	(10.3)	(10.5)	(6.5)	N/A	N/A
2018e	4.5	(10.9)	(12.1)	(7.5)	N/A	N/A

Sector: Pharma & healthcare

Price:	€2.69
Market cap:	€154m
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	0.0	(0.4)	(12.0)
Relative*	(0.8)	(7.2)	(21.3)

* % Relative to local index

Analyst

Juan Pedro Serrate

Transgene (TNG)

INVESTMENT SUMMARY

Transgene is focused on advancing the clinical 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). Seven clinical trials will start before YE2017, including TG4010+Opdivo in the 1st/2nd-line treatment of NSCLC and Pexa-Vec+Yervoy in the first-line treatment of liver cancer/other solid tumours. 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. In October 2016 it announced a collaboration agreement with Merck and Pfizer to evaluate TG4001 with Avelumab in HPV-positive Head & Neck Cancer patients in a Phase I/II Study. Cash and equivalents at end Q316 amounted to €25.4m. In November 2016 the company raised an additional €46.4m (gross) through a rights issue that will fund operations to the end of 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)
2014	11.1	(35.5)	(38.9)	(103.25)	N/A	N/A
2015	9.6	(25.7)	(28.9)	(78.08)	N/A	N/A
2016e	6.1	(23.9)	(27.2)	(70.55)	N/A	N/A
2017e	7.8	(27.9)	(31.5)	(81.87)	N/A	N/A

Sector: Pharma & healthcare

Price:	€2.03
Market cap:	€41m
Market	Euronext Paris

Share price graph (€)

Company description

TxCell is a pioneer in developing regulatory T-cell therapies against autoimmune and inflammatory disorders. The lead product in Crohn's disease is planned to start Phase IIb in 2018. A novel CAR Treg technology platform is in early development.

Price performance

%	1m	3m	12m
Actual	(12.1)	(11.7)	(53.0)
Relative*	(11.4)	(17.6)	(60.6)

* % Relative to local index

Analyst

Dr John Savin

TxCell (TXCL)

INVESTMENT SUMMARY

TxCell's novel CAR-modified regulatory T-cell (CAR Treg) platform now has four indications in preclinical development with the first trial anticipated by TxCell to start in 2018. CAR Tregs offer a powerful and versatile new approach to autoimmune and immune system disorders and is an excellent basis for deals. A new Ovasave Crohn's Phase IIb is expected to start in 2018 based on GMP manufacturing using a faster process. TxCell made use of a convertible loan facility in 2016 drawing €4.9m in cash. This has increased shares in issue with addition dilution expected in 2017.

INDUSTRY OUTLOOK

TxCell is developing two platform technologies: ENTrIA and ASTrIA. ENTrIA uses chimeric antigen receptor (CAR) technology like that used in the CAR T-cell cancer area. A granted European patent offers broad protection. CAR Treg trials may start from 2018 with transplant; other indications are lupus nephritis, Bullous pemphigoid (skin) and multiple sclerosis; ASTrIA, is the basis for Ovasave for Crohn's disease.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2014	1.4	(8.7)	(8.7)	(82.6)	N/A	N/A
2015	1.6	(10.8)	(10.7)	(87.4)	N/A	N/A
2016e	0.1	(12.4)	(12.4)	(92.8)	N/A	N/A
2017e	0.0	(10.1)	(10.1)	(70.6)	N/A	N/A

Sector: Pharma & healthcare

Price:	30.2p
Market cap:	£159m
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	(8.3)	(19.9)	(45.0)
Relative*	(8.5)	(24.6)	(56.6)

* % Relative to local index

Analyst

Lala Gregorek

Vernalis (VER)

INVESTMENT SUMMARY

FDA acceptance of the CCP-08 NDA (setting a 4 August 2017 PDUFA date) advances Vernalis towards its goal of building a speciality US franchise of extended release (ER) prescription-only (Rx) cough cold products. Potential 2017 approval of CCP-08 and CCP-07 (PDUFA date 20 April 2017) would enable launch into the 2017/18 cough cold season. Last reported cash of £78.6m (unaudited at end October) supports ongoing investment in operational initiatives to enhance Tuzistra XR sales growth this season and beyond. Progress during H117 includes increased unrestricted insurance coverage (now at 75% of US commercial lives, up from 60%), availability of physician samples, completion of the sales force expansion and promotion of a new marketing campaign. Successful execution will lay important foundations for the launches of CCP-07 and CCP-08. H117 results report on February 21.

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)
2015	19.9	(8.9)	(6.9)	(1.0)	N/A	N/A
2016	12.0	(23.9)	(16.2)	(3.4)	N/A	N/A
2017e	12.9	(37.7)	(37.6)	(6.8)	N/A	N/A
2018e	40.7	(18.2)	(18.4)	(3.0)	N/A	N/A

Sector: Pharma & healthcare

Price:	A$1.06
Market cap:	A$255m
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	(13.1)	(7.8)	43.2
Relative*	(12.5)	(13.6)	19.8

* % Relative to local index

Analyst

Dr Dennis Hulme

Viralytics (VLA)

INVESTMENT SUMMARY

Viralytics is well-positioned to benefit from industry interest in oncolytic virotherapy. Data presented at the 31st Annual Meeting of the Society for the Immunotherapy of Cancer (SITC) in November 2016 showed 100% disease control rate (10/10) in Phase Ib CAPRA study which evaluates intratumoural CAVATAK in combination with anti-PD-1 Keytruda in advanced melanoma; 7 of 10 patients showed an overall response rate and 3 had stable disease. In the Phase Ib MITCI trial, 9 of 18 (50%) patients with advanced melanoma had objective responses with Cavatak in combination with Yervoy (ipilumumab). Other ongoing trials include the Phase I/II STORM study in solid cancers and a Phase Ib trial of Cavatak in combination with Keytruda (pembrolizumab) in late-stage melanoma; the Phase I/II CANON trial in superficial bladder cancer; and Keynote 200 (STORM Part B), a Phase Ib trial of Cavatak and Keytruda in advanced lung and bladder cancer. Cash at 31 December was A$40m.

INDUSTRY OUTLOOK

The emergence of targeted and immunotherapy agents in recent years is redefining the treatment paradigm in metastatic melanoma. The FDA approval of Amgen's Imlygic (T-vec) has made oncolytic virotherapy a commercial reality.

Y/E Jun	Revenue (A$m)	EBITDA (A$m)	PBT (A$m)	EPS (fd) (c)	P/E (x)	P/CF (x)
2014	2.5	(4.9)	(4.7)	(3.9)	N/A	N/A
2015	2.5	(6.0)	(5.5)	(3.0)	N/A	N/A
2016e	4.7	(8.5)	(8.0)	(3.8)	N/A	N/A
2017e	4.4	(11.1)	(10.2)	(4.3)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$4.54
Market cap:	US$123m
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 NuQ technology. Its lead program is in colorectal cancer, which may enter the European market in 2016.

Price performance

%	1m	3m	12m
Actual	(3.8)	4.4	23.0
Relative*	(5.8)	(2.3)	(1.6)

* % Relative to local index

Analyst

Maxim Jacobs

VolitionRx (VNRX)

INVESTMENT SUMMARY

VolitionRx's proprietary NuQ 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 NuQ triage colorectal cancer test which will launch in certain European countries in early 2017. The company also announced that it is initiating a study with DKFZ, the German Cancer Research Center, to evaluate NuQ blood tests for the detection of pancreatic cancer. This follows two successful pilot studies using its biomarkers in pancreatic cancer. A US 510(k) approval and launch is expected in late 2017 or early 2018.

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)
2014	0.0	(5.9)	(8.4)	(62.08)	N/A	N/A
2015	0.0	(10.0)	(9.7)	(54.49)	N/A	N/A
2016e	0.0	(14.0)	(14.0)	(60.78)	N/A	N/A
2017e	1.6	(16.7)	(16.6)	(62.31)	N/A	N/A

Sector: Pharma & healthcare

Price:	SEK40.00
Market cap:	SEK190m
Market	NASDAQ OMX First North

Share price graph (SEK)

Company description

Xbrane Biopharma is a Swedish developer of biosimilars using a patented, more efficient manufacturing system. The lead product is Xlucane, a Lucentis biosimilar. Xbrane's first product will be a triptorelin generic, Spherotide, for prostate cancer. First sales will be to Iran in 2017. European approval is possible in 2019.

Price performance

%	1m	3m	12m
Actual	(2.0)	(3.4)	27.0
Relative*	(5.4)	(10.6)	2.9

* % Relative to local index

Analyst

Dr John Savin

Xbrane Biopharma (XBRANE)

INVESTMENT SUMMARY

Xbrane is developing price-beating generics. It's first sales in 2017 will be of Spherotide: the first generic of the prostate cancer therapy triptorelin. A SEK7m order is ready for shipment to Iran, once GMP validated . A Chinese deal worth SEK17m upfront, $8m total, may be signed in Q117. European partnering and launches are possible from 2019 after clinical trials. Xbrane (or a partner) may sell Xlucane, its low-cost biosimilar of Lucentis (2015 sales $3.6bn), in the US after 2021 and from 2022 in Europe.

INDUSTRY OUTLOOK

Triptorelin treats advanced prostate cancer, endometriosis and uterine fibroids. Sales in 2015 for these were $380m. Xbrane is developing a biosimilar of Lucentis (ranibizumab, Roche/Novartis; 2015 sales: $3.6bn) to treat wet age-related macular degeneration (wAMD). In 2015, Lucentis sales fell by 15% due to competition with Eylea (Regeneron/Bayer; 2015 sales: $4bn). Xbrane has a patented production method, now being scaled up to GMP, that claims to lower material costs by 85%.

Y/E Dec	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (fd) (öre)	P/E (x)	P/CF (x)
2014	0.2	(3.8)	(3.9)	(62.6)	N/A	N/A
2015	0.4	(10.7)	(11.0)	(254.4)	N/A	N/A
2016e	2.2	(22.9)	(25.1)	(538.2)	N/A	N/A
2017e	24.0	(13.6)	(15.8)	(338.0)	N/A	N/A

Company coverage

Company	Note	Date published
4SC	Update; Update	06/10/2016; 19/12/2016
Abzena	Flash; Outlook	20/01/2017; 07/02/2017
Acarix	Pre IPO; Outlook	03/11/2016; 21/12/2016
Achillion Pharmaceuticals	Outlook; Update	14/07/2016; 28/09/2016
Adherium	Outlook; Update	20/04/2016; 06/10/2016
AFT Pharmaceuticals	Outlook; Update	31/05/2016; 05/12/2016
Akari Therapeutics	Update; Update	08/07/2016; 09/01/2017
Allium Medical	Initiation; Update	02/11/2016; 23/11/2016
Angle	Update; Outlook	01/08/2016; 14/02/2017
Athersys	Update; Update	30/06/2016; 27/10/2016
Atossa Genetics	Update; Flash	30/11/2016; 11/01/2017
Basilea Pharmaceuticals	Update; Update	30/08/2016; 16/09/2016
Bio-Light Life Sciences	Update; Flash	21/12/2016; 24/01/2017
Biondvax Pharmaceuticals	Initiation	08/12/2016
C4X Discovery	Flash; Flash	06/09/2016; 29/09/2016
Carmat	Update; Flash	15/07/2016; 02/12/2016
Celyad	Update; Update	13/12/2016; 09/01/2017
Consort Medical	Update; Update	19/12/2016; 04/01/2017
Crossject	Update; Update	23/06/2016; 09/12/2016
e-Therapeutics	Update; Update	20/09/2016; 16/01/2017
Evotec	Outlook; Update	29/06/2016; 16/08/2016
Factor Therapeutics	Outlook	28/10/2016
Genedrive		
Genticel	Update; Update	28/06/2016; 19/12/2016
GW Pharmaceuticals	Outlook; Update	25/02/2016; 08/06/2016
Hutchison China Meditech	Outlook; Outlook	31/05/2016; 09/12/2016
Hybrigenics	Update; Update	18/05/2016; 06/12/2016
Immunovia	Outlook; Update	10/11/2016; 20/12/2016
Intec Pharma	Initiation	29/09/2016
International Stem Cell	Update; Update	02/08/2016; 14/12/2016
Kiadis Pharma	Update; Update	08/12/2016; 06/01/2017
Lifewatch	Initiation	09/01/2017
MagForce	Update	09/02/2015
Medigene	Update; Update	05/10/2016; 21/12/2016
Mesoblast	Outlook; Update	08/07/2016; 21/09/2016
Midatech	Update; Update	18/12/2015; 06/01/2016
Mologen	Update; Update	01/09/2016; 14/11/2016
MorphoSys	Update; Outlook	17/12/2015; 17/05/2016
Nanobiotix	Outlook; Outlook	31/05/2016; 02/02/2017
Neovacs	Outlook; Update	01/08/2016; 23/11/2016
NetScientific	Outlook; Update	26/08/2016; 09/12/2016

Newron Pharmaceuticals	Flash; Outlook	31/03/2016; 02/09/2016
Nexstim	Update; Update	27/07/2016; 29/09/2016
Novogen	Update; Update	09/05/2016; 31/10/2016
Onxeo	Update; Outlook	23/08/2016; 06/01/2017
Orexigen Therapeutics	Update; Update	19/08/2016; 18/11/2016
Orexo	Update; Update	04/11/2016; 28/11/2016
Oryzon Genomics	Flash; Update	16/11/2016; 09/12/2016
Oxford BioMedica	Update; Flash	02/12/2016; 05/12/2016
Pacific Edge	Outlook; Update	24/06/2016; 13/02/2017
Paion	Update; Outlook	05/07/2016; 21/11/2016
PDL BioPharma	Update; Update	11/08/2016; 08/12/2016
PharmaMar	Update; Outlook	27/09/2016; 25/01/2017
Photocure	Outlook; Update	21/09/2016; 21/11/2016
Pixium Vision	Update; Flash	19/10/2016; 12/01/2017
Pluristem Therapeutics	Initiation	23/11/2016
Prescient Therapeutics	Update; Update	28/09/2015; 03/03/2016
Prima BioMed	Outlook; Outlook	27/07/2016; 02/08/2016
Probiodrug	Update; Update	13/09/2016; 09/01/2017
Quantum Genomics	Initiation	28/11/2016
Redhill Biopharma	Initiation; Update	24/11/2016; 11/01/2017
Regeneus	Update; Outlook	14/09/2016; 30/01/2017
ReNeuron Group	Update; Update	05/08/2016; 07/12/2016
Selvita	Update; Update	14/10/2016; 22/11/2016
Silence Therapeutics	Initiation	25/07/2016
Sunesis Pharmaceuticals	Update; Update	16/09/2016; 13/12/2016
SymBio Pharmaceuticals	Update; Flash	21/03/2016; 06/01/2017
TiGenix	Update; Update	28/01/2015; 20/04/2015
Tonix Pharmaceuticals	Update; Update	01/12/2016; 23/01/2017
Touchstone Innovations	Update; Update	03/11/2016; 06/01/2017
Transgene	Update; Update	21/09/2016; 28/10/2016
TxCell	Update; Update	24/06/2016; 28/10/2016
Vernalis	Outlook; Update	21/10/2016; 05/01/2017
Viralytics	Update; Update	16/06/2016; 21/11/2016
VolitionRx	Outlook; Update	23/09/2016; 06/01/2017
Xbrane Biopharma	Initiation	10/02/2017

Investment companies		
BB Biotech AG	Investment trust review	11/03/2015; 09/02/2016
Biotech Growth Trust (The)	Investment trust review	18/02/2015; 15/12/2015
International Biotechnology Trust	Investment trust review	03/03/2015; 11/12/2015

QuickViews

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