EDISON

Edison Healthcare Insight

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The Edison healthcare team

www.edisongroup.com

Maxim Jacobs

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

Dr Nathaniel Calloway

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

Pooya Hemami

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

Dr John Savin

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

Juan Pedro Serrate

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

Dr Dennis Hulme

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

Dr 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 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 Andy Smith

Andy joined the Healthcare team at Edison in November 2017 after a period as a senior principal in ICON's Pricing & Market Access consultancy. Prior to ICON he was chief investment officer at Mann Bioinvest and managed healthcare and biotech funds at AXA Framlington, SV Life Sciences, Schroders and 3i Group. Andy is a scientist by training and completed his PhD with Glaxochem after working for ICI and in the NHS. Between working as a lecturer at Guy's Medical School, he worked in R&D management at SmithKline Beecham, before moving to the Strategic Product Development group in SB Pharmaceuticals to be a global product manager. Andy also has an MBA from the University of Greenwich and teaches the finance module on the Master's in Bioscience Enterprise course at the University of Cambridge.

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).

Alice Nettleton

Alice joined Edison's Healthcare team in November 2017. Previously, she worked as a business analyst at PharmaVentures on a variety of consulting projects relating to life science transactions. Alice holds a BSc in Biomedical Sciences from King's College London and an MSc in Business Creation and Innovation in Biomedicine from Gothenburg University, and while studying has completed two internships at IP Pragmatics.

Briana Warschun

Briana received her Master of Science in Biomedical Engineering from Brown University in May 2017. Before that, she received a BS in Biomedical Engineering with a minor in Biophysics from George Washington University. While pursuing her education, Briana gained work experience through internships at the medtech behemoth C.R. Bard as well as at the healthcare consulting firm The Advisory Board Company.

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Prices at 9 March 2018

Published 15 March 2018

Welcome to the March edition of the Edison Healthcare Insight. In this edition we have profiled 64 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.

Neil Shah & Maxim Jacobs

Healthcare Research

Company profiles

Prices at 9 March

US$/£ exchange rate: 0.7213
€/£ exchange rate: 0.8920
C$/£ exchange rate: 0.5586
A$/£ exchange rate: 0.5629
NZ$/£ exchange rate: 0.5243
SEK/£ exchange rate: 0.0874
DKK/£ exchange rate: 0.1197
NOK/£ exchange rate: 0.0921
JPY/£ exchange rate: 0.0068
NIS/£ exchange rate: 0.2100
CHF/£ exchange rate: 0.7620

Sector: Pharma & healthcare

Price:	€8.26
Market cap:	€253m
Market	FRA

Share price graph (€)

Company description

4SC is a Munich-based cancer biopharmaceutical company. Resminostat (HDAC inhibitor) is the lead candidate for cutaneous T-Cell lymphoma (pivotal study started in Q416). It has a second compound, 4SC-202 (Phase II) and a preclinical asset, 4SC-208. 4SC also has several partners including Yakult Honsha for resminostat in Japan.

Price performance

%	1m	3m	12m
Actual	29.1	63.6	218.4
Relative*	26.6	74.3	208.9

* % Relative to local index

Analyst

Dr Jonas Peciulis

4SC (VSC)

INVESTMENT SUMMARY

The equity capital raise (€41m gross) in July will fund 4SC's progressive R&D plan. Its pivotal 150-patient study with anti-cancer compound resminostat (broad spectrum-HDAC inhibitor) for CTCL has recruited more than one third of patients. Top-line data is expected in H119. Resminostat has also been licensed to Yakult Honsha in Japan, which is preparing for Phase II in biliary tract cancer based on positive data from a Phase I trial. Alongside resminostat, 4SC is currently evaluating the combination of 4SC-202 with a checkpoint inhibitor in a Phase Ib/II trial in melanoma. 4SC intends to advance 4SC-202 into a first pivotal study (early 2019) and complete formal development of 4SC-208 with the aim of starting Phase I early 2019. Other ongoing positives include a partnership with Link Health in China for its oncology Eg5 inhibitor, 4SC-205, a worldwide license for 4SC's preclinical inhibitors of the Kv1.3 ion channel, and receipt of a milestone payment from Immunic for the sale of 4SC's immunology portfolio in September 2016.

INDUSTRY OUTLOOK

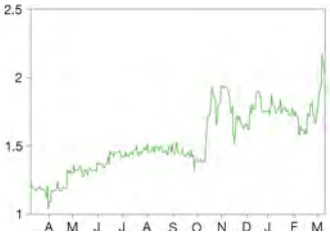
Resminostat could become the first HDAC inhibitor to gain EU approval for CTCL (vs two HDACs approved in the US), but more importantly the maintenance treatment indication would be unique, potentially offering a competitive edge in Europe and the US.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	3.3	(7.9)	(8.4)	(58.58)	N/A	N/A
2016	2.1	(10.9)	(10.9)	(54.17)	N/A	N/A
2017e	3.4	(12.7)	(12.8)	(48.70)	N/A	N/A
2018e	2.7	(16.2)	(16.3)	(50.99)	N/A	N/A

Sector: Pharma & healthcare

Price:	€1.96
Market cap:	€56m
Market	Xetra

Share price graph (€)



Company description

aap Implantate is a German medtech company, focused on developing, manufacturing and selling products for bone fractures. These include the recently launched LOQTEQ trauma plating system, in addition to bone cements.

Price performance

%	1m	3m	12m
Actual	21.1	10.5	59.7
Relative*	18.7	17.7	55.0

* % Relative to local index

Analyst

Andy Smith

aap Implantate (AAQ)

INVESTMENT SUMMARY

aap is a medical device company concentrated on its core trauma business. aap divested its Biomaterials and contract manufacturing businesses to focus on trauma. The geographic focus is now on higher margin established markets like the US, while remaining opportunistic in markets like China and Brazil. The roll-out of the LOQTEQ trauma plates is a key driver and the gold standard in fracture treatment. aap operates largely through a distribution network and global medtech partnerships (eg Zimmer and Smith & Nephew). aap's FY17 results demonstrated 20% trauma sales growth contributing to FY17 revenues of €10.9m. FY18 sales and EBITDA guidance is €13-15m and between -€3.4m to -€5. The future for aap's implants are silver-coated to prevent infections.

INDUSTRY OUTLOOK

The changing demographics to older populations in both the developed and developing markets play to greater demands for effective orthopedic devices and specifically the gold standard fracture repair.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (fd) (c)	P/E (x)	P/CF (x)
2013	N/A	N/A	N/A	N/A	N/A	N/A
2014	N/A	N/A	N/A	N/A	N/A	N/A
2015e	N/A	N/A	N/A	N/A	N/A	N/A
2016e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price:	25.2p
Market cap:	£54m
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	(2.9)	(19.8)	(35.7)
Relative*	(5.1)	(18.4)	(35.9)

* % Relative to local index

Analyst

Andy Smith

Abzena (ABZA)

INVESTMENT SUMMARY

Abzena offers a full-service biologics research and manufacturing capability, enabling safer and more effective biological products, including immunogenicity assessment, protein/antibody engineering, bioconjugation chemistry and biomanufacturing. The 2017 fundraising of £25m (gross) is enabling it to expand its service offering and capacity. The company now aspires to profitability without further equity raises. Fee-for-services provides revenues, while successful commercialization of products created using Abzena's technologies offers the prospect of future royalty revenue; 12 such products are now in the clinic. Abzena has recently announced another licensing deal for its ADC linker technology (ThioBridge™) making for up to ten ADC products, up to three with Halozyme.

INDUSTRY OUTLOOK

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

Y/E Mar	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2016	9.9	(6.8)	(7.4)	(5.86)	N/A	N/A
2017	18.7	(7.5)	(8.3)	(5.82)	N/A	N/A
2018e	21.6	(10.8)	(13.1)	(5.91)	N/A	N/A
2019e	31.0	(6.4)	(9.7)	(4.35)	N/A	N/A

Sector: Pharma & healthcare

Price:	SEK9.42
Market cap:	SEK217m
Market	NASDAQ OMX First North

Share price graph (SEK)

Company description

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

Price performance

%	1m	3m	12m
Actual	(7.2)	(33.9)	(53.6)
Relative*	(12.1)	(33.9)	(54.9)

* % Relative to local index

Analyst

Dr John Savin

Acarix (ACARIX)

INVESTMENT SUMMARY

Acarix laid the groundwork in 2017 for sales development. Full year 2017 revenues were SEK 638k covering nine units plus one sold on approval. The reported loss was SEK 29.8m. Y/E cash was SEK 103.5m. Forecasts are being revised. Good sales growth in Europe is expected from 2019. Christain Lindholm (FD) was appointed as interim CEO.

INDUSTRY OUTLOOK

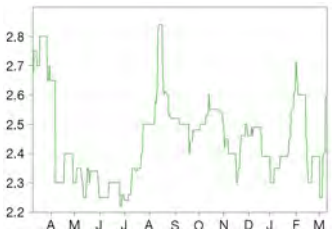
CADScore helps doctors to identify cardiac patients who probably require no further risky invasive clinical testing. German private healthcare insurance covers about 10% of people and is the immediate target. Major German and EU sales need public reimbursement possibly from late 2019. US marketing will require a US clinical study. However, with no US trial announced, our expected US launch date is moved to 2022 from 2021. The US runs over 3.8m tests per year. The key Dan-NICAD study was published in 2017 and should boost medical awareness. A Danish prospective study has been announced to boost data and improve credibility with opinion leaders.

Y/E Dec	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (öre)	P/E (x)	P/CF (x)
2016	0.0	(26.8)	(26.8)	(183.01)	N/A	N/A
2017	0.6	(29.2)	(30.7)	(129.31)	N/A	N/A
2018e	N/A	N/A	N/A	N/A	N/A	N/A
2019e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price:	NZ$2.60
Market cap:	NZ$253m
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	0.0	4.4	(3.0)
Relative*	(3.3)	2.8	(14.3)

* % Relative to local index

Analyst

Maxim Jacobs

AFT Pharmaceuticals (AFT)

INVESTMENT SUMMARY

AFT Pharmaceuticals is a New Zealand-based speciality pharmaceutical company that currently sells 130 prescription speciality generics and OTC products through its own sales force in New Zealand, Australia and South-East Asia and has been expanding its geographic footprint. Maxigesic, its combination acetaminophen/ibuprofen product that is addressing a $10.4b market, is currently sold and launched in 10 countries and distribution agreements are in place in a total of 125. Additionally, AFT recently reported positive results from a pivotal trial for Maxigesic IV. 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.

INDUSTRY OUTLOOK

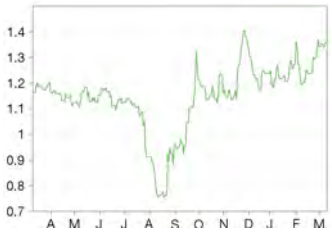
AFT is a multi product company targeting pharmacy prescription, OTC and hospital markets. Data for Maxigesic offers them a competitive advantage in a fragmented industry.

Y/E Mar	Revenue (NZ$m)	EBITDA (NZ$m)	PBT (NZ$m)	EPS (fd) (c)	P/E (x)	P/CF (x)
2016	64.0	(7.8)	(10.8)	(11.12)	N/A	N/A
2017	69.2	(15.1)	(18.5)	(19.12)	N/A	N/A
2018e	80.6	(9.4)	(12.2)	(12.89)	N/A	N/A
2019e	98.0	1.3	(0.5)	(0.56)	N/A	N/A

Sector: Pharma & healthcare

Price:	NIS1.35
Market cap:	NIS96m
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	12.2	10.8	16.1
Relative*	9.9	8.0	9.9

* % Relative to local index

Analyst

Juan Pedro Serrate

Allium Medical (ALMD)

INVESTMENT SUMMARY

Allium Medical Solutions is a company focused on developing and marketing minimally invasive devices in various areas: cardiovascular, metabolic, genitourinary and gastrointestinal. The company has three selling product lines: Allium Stents, IBI (EndoFast) and Gardia Medical. Peripheral stents and EndoFast urogynecology devices generate the bulk of revenues (70% of NIS7.3m in 2016). Allium has achieved revenue CAGR of 23% in 2011-16. The investment case rests on Allium's ability to execute on its ambitious growth strategy, with revenues expanding at a double-digit rate as the company continues to gain market share in established and new regions. In December 2017 Allium raised c NIS7m. We estimate that FY17e net cash of NIS21m provides runway at least until the end of 2018.

INDUSTRY OUTLOOK

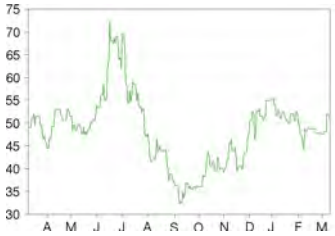
We expect Allium's growth to accelerate in the medium term, driven by new markets, resulting in 2016-20e revenue CAGR of 46%. Allium also has two devices in development: Allevetix which has just started a clinical trial for diabetes and obesity; and TruLeaf, a mitral valve replacement device in undergoing preclinical studies. A marketing application for Gardia Medical's Wirion device has been submitted to the FDA, approval in the US is important for strategic partnering discussions.

Y/E Dec	Revenue (NISm)	EBITDA (NISm)	PBT (NISm)	EPS (NIS)	P/E (x)	P/CF (x)
2015	5.2	(16.3)	(18.5)	(0.65)	N/A	N/A
2016	7.4	(20.4)	(22.0)	(0.49)	N/A	N/A
2017e	9.7	(19.5)	(20.3)	(0.35)	N/A	N/A
2018e	16.6	(6.8)	(7.3)	(0.10)	N/A	N/A

Sector: Pharma & healthcare

Price:	50.5p
Market cap:	£59m
Market	AIM

Share price graph (p)



Company description

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

Price performance

%	1m	3m	12m
Actual	5.2	(3.8)	3.1
Relative*	2.8	(2.1)	2.8

* % Relative to local index

Analyst

Dr Jonas Peciulis

Angle (AGL)

INVESTMENT SUMMARY

Angle's Parsortix cell separation platform is used to detect and harvest circulating tumour cells (CTCs) from blood. CTCs provide the complete picture since viable, intact CTCs can be used for DNA, RNA and protein analysis as well as culturing and xenograft models. Recently, Angle acquired Ziplex platform of Axela, a multiplex solution providing enhanced analysis of protein, DNA and RNA. This will allow Angle to offer a "sample to answer" product to its clients. A key catalyst in the near term is the completion of the FDA clinical studies in breast cancer expected in H218 and a potential subsequent submission to the FDA. In July 2017, the company reported initial results from its two clinical studies (n=200 each) for triaging women with ovarian masses before surgery. Reported sensitivity was up to 95%, while specificity was significantly higher than existing tests. Recently the company has signed collaboration agreements with three multinationals (Qiagen, Philips and Abbott) indicating growing interest in CTCs from large players. We are updating our estimates.

INDUSTRY OUTLOOK

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

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

Sector: Pharma & healthcare

Price:	NTD44.00
Market cap:	NTD5726m
Market	Taiwan

Share price graph (NTD)

Company description

ASLAN Pharmaceuticals is a Singapore based drug developer targeting Asia prevalent diseases. Varlitinib is in pivotal clinical trials for biliary tract cancer and gastric cancer and ASLAN003 will be advanced to Phase II trials for acute myeloid leukaemia.

Price performance

%	1m	3m	12m
Actual	(15.4)	33.1	N/A
Relative*	(19.2)	27.4	N/A

* % Relative to local index

Analyst

Dr Nathaniel Calloway

ASLAN Pharmaceuticals (6497)

INVESTMENT SUMMARY

ASLAN is a pharmaceutical company focused on in-licensing early-stage assets for diseases with a high prevalence in Asia that are orphans in the West. This allows the company to quickly progress these assets through clinical trials in Asia. The goal then is to out-license rights to the EU and Japan while commercialising in the US and other Asian geographies. The company's lead programme is varlitinib, a pan-HER inhibitor in a pivotal trial for biliary tract cancer (BTC) and Phase II/III for gastric cancer (GC). Initial readouts for these trials are planned for 2018. It also has an ongoing Phase II clinical trial of ASLAN003, an inhibitor of dihydroorotate dehydrogenase, which is being tested for acute myeloid leukaemia, a novel indication for this class of drug.

INDUSTRY OUTLOOK

ASLAN's Asia focused development strategy allows it to address certain indications that have otherwise proven difficult to develop drugs for, such as biliary tract cancer, which has no approved targeted therapies.

Y/E Dec	Revenue (NTDm)	EBITDA (NTDm)	PBT (NTDm)	EPS (NTD)	P/E (x)	P/CF (x)
2015	0.0	(384.5)	(402.7)	(7.32)	N/A	N/A
2016	373.0	(232.7)	(246.5)	(2.35)	N/A	N/A
2017e	0.0	(1077.4)	(1088.2)	(8.78)	N/A	N/A
2018e	0.0	(1204.1)	(1215.3)	(9.34)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$0.65
Market cap:	US$21m
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	11.0	112.8	(57.8)
Relative*	4.4	102.5	(64.2)

* % Relative to local index

Analyst

Pooya Hemami

Atossa Genetics (ATOS)

INVESTMENT SUMMARY

Atossa is advancing endoxifen, a metabolite of tamoxifen, as a topical treatment for high mammographic breast density (MBD), a condition associated with higher cancer risk. Atossa is also developing oral endoxifen as well as a potential treatment for breast cancer patients refractory to tamoxifen. About 20-25% of the 1.0m women taking tamoxifen worldwide develop resistance to it, and have an increased risk for cancer recurrence. The firm reported positive Phase I data for both formulations, including results showing that patients obtain "steady state" serum endoxifen levels after about 7 days of daily oral dosing.

INDUSTRY OUTLOOK

Atossa is also advancing its proprietary intraductal microcatheter (IDMC), intended to selectively introduce drugs to breast ducts to improve drug targeting. It is combining its IDMC with established cancer drug fulvestrant and started a Phase II trial in 2016. The firm plans to start Phase II trials for oral and topical endoxifen in H118. Atossa had $7.3m net cash on 31 December 2017, which we estimate extends its runway into Q318.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.0	(9.5)	(9.8)	(514.81)	N/A	N/A
2016	0.0	(6.9)	(7.2)	(245.98)	N/A	N/A
2017e	0.0	(7.7)	(7.8)	(82.72)	N/A	N/A
2018e	0.0	(11.4)	(11.5)	(43.40)	N/A	N/A

Sector: Pharma & healthcare

Price:	CHF66.35
Market cap:	CHF788m
Market	Swiss Stock Exchange

Share price graph (CHF)

Company description

Basilea focuses on anti-infectives and oncology. Lead products are Cresemba (an antifungal), which is approved in the US and Europe, and Zevtera (an anti-MRSA broad-spectrum antibiotic), approved in many European and non-European countries for pneumonia.

Price performance

%	1m	3m	12m
Actual	(3.2)	(12.6)	(20.0)
Relative*	(5.9)	(8.8)	(22.6)

* % Relative to local index

Analyst

Dr Susie Jana

Basilea Pharmaceutica (BSLN)

INVESTMENT SUMMARY

Basilea has two approved hospital-based products: Cresemba (severe mold infections) and Zevtera (bacterial infections). Zevtera has started US phase III development (ABSSSI trial underway, SAB trial to start mid-2018). Multiple licensing/distribution agreements announced in 2017 for launched assets Cresemba and Zevtera should drive top-line growth faster than we had expected. Major deals include; Cresemba in Europe (ex Nordics), Russia, Turkey, Israel, China and Asia Pacific with Pfizer, Zevtera in China with CR Gosun, and in Europe with Cardiome. Basilea's oncology pipeline focuses on drugs that target resistance to current cancer therapies. BAL101553 has entered a Phase I glioblastoma trial. 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)
2016	66.0	(41.6)	(50.9)	(505.74)	N/A	N/A
2017	101.5	(12.2)	(18.9)	(178.36)	N/A	37.7
2018e	113.6	(16.3)	(24.0)	(222.50)	N/A	N/A
2019e	137.3	(3.5)	(11.4)	(106.14)	N/A	N/A

Sector: Pharma & healthcare

Price:	NIS14.80
Market cap:	NIS54m
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	(0.2)	0.5	38.3
Relative*	(2.3)	(2.0)	30.9

* % Relative to local index

Analyst

Pooya Hemami

Bio-Light Life Sciences (BOLT)

INVESTMENT SUMMARY

BioLight Life Sciences developing Eye-D VS-101, an extended-dose latanoprost drug implant designed to treat glaucoma that recently reported positive data in a Phase I/IIa trial, and TeaRx, a dry eye syndrome diagnostic test. VS-101 can be helpful for the 20-60% of glaucoma patients who do not comply with daily eye drop therapy.

INDUSTRY OUTLOOK

BioLight's IOPtima subsidiary (of which it holds a 70% stake) signed a definitive agreement in November 2017 to be acquired by Chengdu Kanghong Pharma. The transaction consists of four stages, with the initial stage (to be completed by 31 March 2018) consisting of a $7m investment in IOPtima for a 19% stake. The subsequent stages involve the acquisition of the remaining IOPtima shares from all its other shareholders (including BioLight), and are subject to the fulfillment of several conditions, including meeting IOPtima operational objectives and the renewal of Chinese registration by April 2018 for its IOPtimate laser surgical device (for the treatment of glaucoma). If all conditions are met and if the transaction is fully executed (by mid-2021), the gross consideration to BioLight is expected to range between about $23m and $27.5m.

Y/E Dec	Revenue (NISm)	EBITDA (NISm)	PBT (NISm)	EPS (NIS)	P/E (x)	P/CF (x)
2015	1.4	(24.3)	(25.1)	(6.96)	N/A	N/A
2016	2.1	(20.2)	(26.3)	(5.55)	N/A	N/A
2017e	2.2	(27.2)	(30.1)	(6.88)	N/A	N/A
2018e	3.6	(25.7)	(27.9)	(7.50)	N/A	N/A

Sector: Pharma & healthcare

Price:	€20.90
Market cap:	€188m
Market	Euronext Growth

Share price graph (€)

Company description

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

Price performance

%	1m	3m	12m
Actual	0.2	(15.4)	(23.2)
Relative*	(3.5)	(14.0)	(28.4)

* % Relative to local index

Analyst

Pooya Hemami

Carmat (ALCAR)

INVESTMENT SUMMARY

Carmat obtained approval in May 2017 from the French regulatory agency (ANSM) to resume its pivotal trial for the Carmat heart. Carmat is now working to expand access in the 20-25-patient study to other countries (recently sites in Czech Republic, Denmark and Kazakhstan was added). It is also preparing a new and more automated production facility, to be ready in early 2018. Carmat raised €52.9m in December 2017, and with the majority of proceeds to be used towards the ongoing EU pivotal trial. Given the firm's 31 December 2017 cash position of €60.7m, we estimate Carmat can finance operations into Q219.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.0	(19.4)	(20.6)	(381.3)	N/A	N/A
2016	0.3	(24.1)	(25.7)	(379.7)	N/A	N/A
2017e	0.0	(27.9)	(29.1)	(406.4)	N/A	N/A
2018e	0.0	(27.5)	(28.4)	(315.4)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$18.95
Market cap:	US$322m
Market	NASDAQ

Share price graph (US$)

Company description

Cellular Biomedicine Group is a biotechnology company developing cell-based therapeutics with operations primarily in China. It has completed Phase II clinical trials of ReJoin, an autologous progenitor cell therapy for osteoarthritis, and it is developing a similar allogeneic product (AlloJoin). It has developed a CD19 CAR-T, which is currently in Phase I testing in China.

Price performance

%	1m	3m	12m
Actual	13.1	73.9	64.8
Relative*	6.4	65.4	39.8

* % Relative to local index

Analyst

Dr Nathaniel Calloway

Cellular Biomedicine Group (CBMG)

INVESTMENT SUMMARY

Cellular Biomedicine Group (CBMG) is a trans-Pacific cell therapy company developing products in China and the US. It has two ongoing Phase I clinical trials of CD19 chimeric antigen receptor T-cell (CAR-T) therapies for blood cancers (adult ALL and DLBCL) in China with data expected in early 2018. Additionally, it is adapting its knee osteoarthritis (KOA) treatment ReJoin as an allogeneic product, AlloJoin, which it hopes to develop in the US after a 2018 IND.

INDUSTRY OUTLOOK

The company is focusing on CAR-T. The first CAR-T therapies were just recently approved in 2017 for the treatment of ALL and DLBCL, with developing ongoing in other hematologic malignancies such as multiple myeloma. Progress in the space has triggered significant M&A interest: Gilead bought Kite Pharma for $12bn in August 2017, and Celgene has an outstanding tender offer for Juno Therapeutics at $9bn.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (fd) (c)	P/E (x)	P/CF (x)
2015	2.5	(11.0)	(12.5)	(108.61)	N/A	N/A
2016	0.6	(15.7)	(18.1)	(134.30)	N/A	N/A
2017e	0.2	(16.2)	(18.8)	(138.43)	N/A	N/A
2018e	0.0	(17.9)	(17.8)	(124.98)	N/A	N/A

Sector: Pharma & healthcare

Price:	€30.50
Market cap:	€301m
Market	Euronext Brussels

Share price graph (€)

Company description

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

Price performance

%	1m	3m	12m
Actual	(8.2)	(5.4)	48.5
Relative*	(10.7)	(4.5)	39.5

* % Relative to local index

Analyst

Dr John Savin

Celyad (CYAD)

INVESTMENT SUMMARY

Celyad has seen a near complete response with "clinical validity" in an AML patient treated with CYAD-01 NKR CAR T-cell therapy in the THINK trial. As two stable disease cases in colorectal cancer have also been seen, Celyad has now identified AML and colorectal cancer as lead development indications. Cash on 30 Sept was €40m due to last into H119. A comprehensive clinical development trial plan has been announced especially looking at combination therapy approaches.

INDUSTRY OUTLOOK

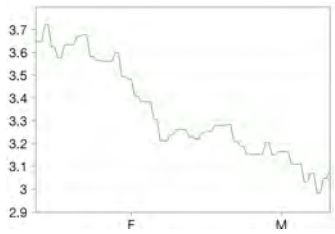
The CART therapeutic area remains a hot area for investment with two major acquisitions. Sales of Yescarta (Gilead) and Kymriah (Novartis) may be slow to develop due to reimbursement delays. Bluebird is the leader in Multiple myeloma. Celyad's NKR CAR T-cells have shown initial promise in AML and mCRC. Celyad also has a leading IP position in allogeneic therapy and a Novartis deal. Immunocore has excellent technology in T-cell receptor therapy.

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

Sector: Pharma & healthcare

Price:	NIS3.08
Market cap:	NIS481m
Market	TASE

Share price graph (NIS)



Company description

Clal Biotechnology Industries is a healthcare investment company focused on investing in a variety of therapeutic, diagnostic, and medical device companies covering a full range of development phases from preclinical to post-market.

Price performance

%	1m	3m	12m
Actual	(5.7)	(5.5)	(3.8)
Relative*	(7.7)	(7.9)	(8.9)

* % Relative to local index

Analyst

Maxim Jacobs

Clal Biotechnology (CBI)

INVESTMENT SUMMARY

Clal Biotechnology (CBI) is an Israel/Boston-based healthcare investment company with an extensive portfolio incorporating a diverse range of technologies, indications and stages of development. CBI holds direct investments in 10 companies (nine biotech and one medical device company), most importantly MediWound, a NASDAQ-listed wound care company and Gamida Cell, which is developing a universal bone marrow transplant (BMT) product. Also, BioCancell and Biokine have programs in Phase III or Phase III ready. 2018 is expected to be a very eventful year for CBI, with key data expected from several portfolio companies, including MediWound. In addition, NASDAQ listings are currently targeted for four investments, namely Gamida Cell, BioCanCell, Cadent and Neon.

INDUSTRY OUTLOOK

CBI is invested in a variety of life science companies, including a wide and diverse range of technologies, indications and stages of development, all of which have high potential.

Y/E Dec	Revenue (NISm)	EBITDA (NISm)	PBT (NISm)	EPS (NIS)	P/E (x)	P/CF (x)
2015	55.8	(175.4)	(209.4)	(1.44)	N/A	N/A
2016	30.5	(434.8)	(454.1)	(2.89)	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:	NIS0.49
Market cap:	NIS83m
Market	TASE

Share price graph (NIS)

Company description

CollPlant is an Israel-based regenerative medicine company. It is focused on developing and commercializing tissue repair products with its plant-based technology, rhCollagen. It has two products on the market, VergenixSTR and Vergenix FG, and has received several orders for its 3D bioprinting product bioInk.

Price performance

%	1m	3m	12m
Actual	(3.8)	(11.9)	75.8
Relative*	(5.8)	(14.1)	66.4

* % Relative to local index

Analyst

Maxim Jacobs

CollPlant Holdings (CLPT)

INVESTMENT SUMMARY

CollPlant is an Israel-based regenerative medicine company. It is focused on developing and commercialising tissue repair products with its plant-based technology, rhCollagen. It has two products on the market, VergenixSTR and VergenixFG, and has received several orders for its 3D bioprinting product bioInk. It received its first order in September from a major biotechnology company, which subsequently reordered more product valued in the hundreds of thousands of dollars. The company intends to use the product to print organs for transplant. Additionally, CollPlant has received an order from a major medical device company in the order of multiple tens of thousands of dollars to develop a 3D printed orthopaedic implant.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (NISm)	EBITDA (NISm)	PBT (NISm)	EPS (NIS)	P/E (x)	P/CF (x)
2015	0.0	(18.0)	(18.7)	(22.03)	N/A	N/A
2016	0.3	(27.0)	(27.9)	(27.72)	N/A	N/A
2017e	1.6	(19.2)	(20.6)	(15.47)	N/A	N/A
2018e	3.2	(16.5)	(17.5)	(9.66)	N/A	N/A

Sector: Pharma & healthcare

Price:	€4.39
Market cap:	€39m
Market	Euronext Paris

Share price graph (€)

Company description

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

Price performance

%	1m	3m	12m
Actual	(0.9)	8.7	(12.1)
Relative*	(4.6)	10.5	(18.1)

* % 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 2020 and US partner is expected to be signed in H118. The next products to reach the market include ZENEO Midazolam (which was recently granted orphan drug designation) and ZENEO Adrenaline for epilepsy and anaphylactic shock, respectively. They should reach the market in 2020.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	2.4	(5.5)	(6.7)	(85.33)	N/A	N/A
2016	1.4	(5.6)	(7.3)	(85.19)	N/A	N/A
2017e	2.9	(6.8)	(8.8)	(74.91)	N/A	N/A
2018e	0.0	(11.0)	(12.0)	(103.05)	N/A	N/A

Sector: Pharma & healthcare

Price:	8.8p
Market cap:	£24m
Market	AIM

Share price graph (p)

Company description

e-Therapeutics is a UK-based drug discovery company that has developed a proprietary network-driven drug discovery platform that has generated pre-clinical licensing opportunities.

Price performance

%	1m	3m	12m
Actual	0.0	(4.1)	2.9
Relative*	(2.3)	(2.4)	2.6

* % Relative to local index

Analyst

Andy Smith

e-Therapeutics (ETX)

INVESTMENT SUMMARY

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

INDUSTRY OUTLOOK

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

Y/E Jan	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2016	0.0	(11.3)	(11.1)	(3.3)	N/A	N/A
2017	0.0	(13.5)	(13.4)	(3.9)	N/A	N/A
2018e	0.0	(7.2)	(7.2)	(2.1)	N/A	N/A
2019e	0.0	(7.2)	(7.2)	(2.1)	N/A	N/A

Sector: Pharma & healthcare

Price:	€1.64
Market cap:	€128m
Market	Euronext Paris

Share price graph (€)

Company description

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

Price performance

%	1m	3m	12m
Actual	(1.6)	(2.3)	(21.1)
Relative*	(5.3)	(0.6)	(26.4)

* % Relative to local index

Analyst

Juan Pedro Serrate

Genkyotex (GKTX)

INVESTMENT SUMMARY

Genkyotex is a biotech company focused on NOX science and the development of small molecule NOX inhibitors for fibrosis and inflammation. Lead product GKT831 is in a Phase II clinical trial in primary biliary cholangitis (PBC) with data in 2018. The company expects to submit a Clinical Trial Application for its second product GKT771 in 2018. GKT771 targets inflammation and angiogenesis among other processes. A Phase II investigator-sponsored trial in patients with Type 1 diabetes (T1D) and kidney disease has recently started recruiting patients in Australia. The company also has a portfolio of early stage NOX inhibitors for oncology, hearing loss and neurology indications. Genkyotex has partnership with the Serum Institute of India Ltd (SIIL) which involves up to $57m of milestone payments and single-digit royalties on net sales. Cash and equivalents were €14.6m at 31 December 2017 which provides runway into Q119.

INDUSTRY OUTLOOK

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

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

Sector: Pharma & healthcare

Price:	5090.0p
Market cap:	£3382m
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	18.2	2.9	111.4
Relative*	15.6	4.7	110.8

* % Relative to local index

Analyst

Dr Susie Jana

Hutchison China MediTech (HCM)

INVESTMENT SUMMARY

HCM has built a substantial pipeline of potential first-in-class or best-in-class tyrosine kinase inhibitor (TKI) drugs, some of which are in development with strategic partners. HCM have submitted a new drug application (partnered with Eli Lilly) for fruquintinib in CRC to the China FDA (full Phase III CRC data [China] was presented at ASCO 2017), marking a major milestone in the company's life. Separately in collaboration with AstraZeneca, HCM have initiated SAVOIR, a global Phase III trial of savolitinib in PRCC. Our forecasts and valuation have been placed under review.

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)
2016	216.1	(44.3)	(47.4)	19.6	364.5	N/A
2017	241.2	(50.7)	(53.5)	(43.3)	N/A	N/A
2018e	N/A	N/A	N/A	N/A	N/A	N/A
2019e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price:	€0.58
Market cap:	€27m
Market	Euronext Growth

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	0.7	(1.7)	(28.6)
Relative*	(3.1)	(0.1)	(33.5)

* % Relative to local index

Analyst

Juan Pedro Serrate

Hybrigenics (ALHYG)

INVESTMENT SUMMARY

Hybrigenics has adopted a development strategy with vitamin D3 derivative inecalcitol, focusing on adult haematological cancers. In addition to chronic lymphocytic leukaemia (CLL) and chronic myeloid leukaemia (CML), Hybrigenics is prioritising acute myeloid leukaemia (AML) given inecalcitol's orphan status in the US and Europe and the scarcity of treatment options in this aggressive and difficult to treat leukaemia. Inecalcitol has the potential to enhance rather than replace approved therapies, particularly with its benign safety profile. The company has refocused exclusively on R&D after the MBO of its subsidiary dedicated to proteomic services. Pro forma net cash at end July 2017 was €11m.

INDUSTRY OUTLOOK

An international Phase II study in AML started in France and the US in H216. Encouraging initial data from a Phase II in CML has been presented. At interim, 33% of patients who had completed one year in the study achieved a deep molecular response (DMR) which may allow patients to discontinue treatment (functional cure). Both trials will be expanded to other countries and combinations with other kinase inhibitors, respectively. Finally, the collaboration with Servier on ubiquitin-specific proteases is ongoing and the company received a milestone payment of €1.5m during H116.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	2.2	(4.4)	(5.0)	(14.6)	N/A	N/A
2016	3.6	(3.8)	(4.3)	(12.0)	N/A	N/A
2017e	2.5	(7.8)	(8.0)	(19.5)	N/A	N/A
2018e	5.5	(5.1)	(5.4)	(11.5)	N/A	N/A

Sector: Pharma & healthcare

Price:	SEK88.00
Market cap:	SEK1524m
Market	NASDAQ OMX First North

Share price graph (SEK)

Company description

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

Price performance

%	1m	3m	12m
Actual	(2.0)	(1.1)	(20.0)
Relative*	(7.2)	(1.1)	(22.3)

* % 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. On the back of positive retrospective data, Immunovia started the PANFAM-1 prospective trial in high-risk patients in Dec 2016 and expects to generate initial out-of-pocket sales late in 2018. Immunovia is conducting a retrospective study, using samples from the biobank of Lund University Diabetes Centre, to compare diabetes patients who developed pancreatic cancer with those who did not. Immunovia is also running the prospective PANDIA-1 study in patients >50 years old with new onset diabetes. Immunovia and the University College London have started collecting samples from patients with early symptoms which is the initial part of the prospective PANSYM-1 study. Additionally, IMMray has potential in immune diseases. Cash and equivalents at end-2017 were SEK192.4m.

INDUSTRY OUTLOOK

Immunovia is targeting a potential opportunity of over SEK41bn. It will first target patients with a family history of pancreatic cancer, or other pancreatic diseases with increased risk of cancer (estimated at 200,000 in the EU/US) followed by patients over 50 years of age diagnosed with type 2 diabetes, (estimated at 3.4 million new patients per year) and patients with early gastric symptoms (estimated 1m tests).

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

Sector: Pharma & healthcare

Price:	A$0.02
Market cap:	A$58m
Market	ASX

Share price graph (A$)

Company description

Immutep (formerly Prima Biomed) has a pipeline based on four LAG-3 products: eftilagimod alpha (IMP321) for cancer chemo-immunotherapy and immunotherapy-immunotherapy combinations, partnered products IMP731 (GSK) and IMP701 (Novartis), and IMP761.

Price performance

%	1m	3m	12m
Actual	9.1	0.0	(25.0)
Relative*	6.7	0.1	(28.6)

* % Relative to local index

Analyst

Dr Dennis Hulme

Immutep (IMM)

INVESTMENT SUMMARY

Immutep has three promising clinical and one pre-clinical asset 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, eftilagimod alpha (IMP321), is being developed initially in metastatic breast cancer in combination with chemotherapy (226-patient randomised Phase IIb underway, 47% response rate in the 15-patient dose-escalation phase) and in melanoma in combination with the anti-PD1 checkpoint inhibitor Keytruda (33% preliminary response rate in first two of three dose-finding cohorts; currently recruiting an additional six-patient expansion cohort at the highest dose). Novartis and GSK are progressing clinical trials of partnered LAG-3 programmes, providing additional validation for the technology. In March a study collaboration for IMP-321 with Merck (MSD) was announced as well as an institutional placement.

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)
2016	1.9	(12.1)	(13.7)	(0.6)	N/A	N/A
2017	4.1	(7.8)	(8.4)	(0.4)	N/A	N/A
2018e	3.5	(8.7)	(8.4)	(0.4)	N/A	N/A
2019e	10.5	(0.3)	0.0	0.0	N/A	N/A

Sector: Pharma & healthcare

Price:	NIS21.91
Market cap:	NIS571m
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	(0.9)	17.0	26.9
Relative*	(2.9)	14.1	20.1

* % Relative to local index

Analyst

Maxim Jacobs

Intec Pharma (NTEC)

INVESTMENT SUMMARY

Intec Pharma is a drug delivery company that has developed a novel drug delivery device termed the accordion pill (AP), a folded, multilayer membrane packaged into a normal capsule, which expands to a sheet within the stomach to many times its original size. This property causes the pill to be retained in the stomach for up to 12 hours. This is ideal for drugs with local activity in the stomach or upper digestive tract or with poor solubility. AP-CDLD, a controlled release formulation of carbidopa and levodopa for Parkinson's is in Phase III with enrollment expected to complete by Q318 with data in H219. They have also completed a Phase I trial of AP-CBD/THC, their cannabinoid program and will be making some design changes to improve the PK.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.0	(8.3)	(7.2)	(92.16)	N/A	N/A
2016	0.0	(14.5)	(13.4)	(116.72)	N/A	N/A
2017e	0.0	(24.1)	(23.2)	(87.52)	N/A	N/A
2018e	0.0	(19.2)	(18.2)	(65.41)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$1.56
Market cap:	US$6m
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	10.6	4.0	0.0
Relative*	4.0	(1.0)	(15.1)

* % Relative to local index

Analyst

Maxim Jacobs

International Stem Cell (ISCO)

INVESTMENT SUMMARY

International Stem Cell (ISCO) is an early-stage cell therapy company currently in Phase I/IIa clinical trials to treat Parkinson's disease (PD), and recently completed dosing the second cohort of patients (8 so far). The company recently reported positive interim clinical data from the first cohort of patients in the trial. The company is also preparing to initiate a Phase II trial in traumatic brain injury in the coming months. With its hpSC technology, ISCO has created 15 stem cell lines, each of which is a different HLA type. From this, it creates different cell types such as liver cells, neural cells and three-dimensional eye structures.

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)
2015	7.6	(5.0)	(4.6)	(129.29)	N/A	N/A
2016	7.2	(5.2)	(4.9)	(33.82)	N/A	N/A
2017e	7.3	(4.6)	(4.3)	(71.85)	N/A	N/A
2018e	8.0	(7.0)	(7.3)	(116.96)	N/A	N/A

Sector: Pharma & healthcare

Price:	A$0.76
Market cap:	A$37m
Market	ASX

Share price graph (A$)

Company description

Kazia Therapeutics has two clinical stage anti-cancer drugs GDC-0084 (targeting glioblastoma) and Cantrixil (targeting ovarian cancer) and a discovery-stage anti-tropomyosins program. GDC-0084 was inlicensed from Genentech, and Kazia is seeking other in-licence opportunities.

Price performance

%	1m	3m	12m
Actual	38.2	111.1	(6.2)
Relative*	35.2	111.4	(10.6)

* % Relative to local index

Analyst

Dr Dennis Hulme

Kazia Therapeutics (KZA)

INVESTMENT SUMMARY

Kazia Therapeutics is developing two groups of anti-cancer compounds, including GDC-0084, a PI3K inhibitor licensed from Genentech that has been granted orphan designation in the US for glioblastoma. It expects to commence recruitment in a Phase II study of GDC-0084 in late March or early April; an initial dose-optimisation lead-in component will precede a randomised trial in 228 first-line glioblastoma patients (final data due 2021). It is also undertaking a Phase I trial of its super-benzopyran drug Cantrixil. The 60-patient Phase I trial in ovarian cancer is expected to report MTD in Q218; while the primary aim is to assess safety and tolerability, radiological responses and biomarkers will be assessed for indications of efficacy. Kazia has initiated a next-generation anti-tropomyosin drug discovery program supported by an A$3m government grant. It has outlicensed its preclinical super-benzopyran program to Heaton-Brown Life Sciences, and is collaborating with Noxopharm to support the development of NOX66.

INDUSTRY OUTLOOK

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

Y/E Jun	Revenue (A$m)	EBITDA (A$m)	PBT (A$m)	EPS (c)	P/E (x)	P/CF (x)
2016	3.7	(10.6)	(11.6)	(28.44)	N/A	N/A
2017	8.6	(10.2)	(10.9)	(22.81)	N/A	N/A
2018e	4.0	(11.0)	(12.2)	(25.25)	N/A	N/A
2019e	13.6	(4.8)	(6.3)	(13.07)	N/A	N/A

Sector: Pharma & healthcare

Price:	€11.16
Market cap:	€193m
Market	Euronext Amsterdam

Share price graph (€)

Company description

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

Price performance

%	1m	3m	12m
Actual	(0.4)	43.5	43.6
Relative*	(3.8)	46.2	35.8

* % Relative to local index

Analyst

Dr John Savin

Kiadis Pharma (KDS)

INVESTMENT SUMMARY

Kiadis is developing ATIR: an allogeneic donor T-cell preparation method using its Theralux technology. This depletes alloreactive T-cells that can cause Graft vs Host disease (GvHD) after a stem cell transplant to treat acute leukaemia. The ATIR T-cell preparation is given 38-32 days after a T-cell depleted haplo-identical bone marrow transplant. ATIR is in a European Phase III randomised, open-label study against the currently favoured "Baltimore" protocol to test if it improves GvHD free, cancer relapse free survival after two years. A conditional Marketing Application has been filed with the EMA. The 120 day questions are still being answered; an EMA opinion is possible from H2 2018. Cash at 30 June 2017 was €10.7m. Kiadis raised €18m in Oct 2017 and has a debt facility of up to €15m.

INDUSTRY OUTLOOK

Zalmoxis, a similar product using a suicide gene switch safety feature, already has a CMA in Europe, annualised sales are €25-30m. There were 2,000 haplo-identical transplants in Europe in 2016.

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:	€6.69
Market cap:	€176m
Market	Scale

Share price graph (€)

Company description

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

Price performance

%	1m	3m	12m
Actual	24.8	(3.3)	50.7
Relative*	22.4	3.0	46.2

* % Relative to local index

Analyst

Dr Daniel Wilkinson

MagForce (MF6)

INVESTMENT SUMMARY

MagForce is moving forward with its strategy to drive uptake and acceptance (in the US and Europe) of its NanoTherm nanoparticle-based therapy for cancer. In Germany, Magforce has six centres commercially capable (three utilised, c50 patients to date) of treating glioblastoma (GBM) patients. To accelerate uptake of NanoTherm treatment in Europe, we expect MagForce to look to expand from Germany into other countries (funded primarily by an up to €35m loan from the European Investment Bank). In the US, its subsidiary Magforce USA has received FDA IDE approval and a pivotal clinical trial is expected to begin enrollment shortly.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	2.6	(4.4)	(4.5)	(0.18)	N/A	N/A
2016	0.5	(6.6)	(7.2)	(0.28)	N/A	N/A
2017e	0.8	(6.2)	(7.0)	(0.26)	N/A	N/A
2018e	2.9	(7.6)	(8.8)	(0.33)	N/A	N/A

Sector: Pharma & healthcare

Price:	€17.66
Market cap:	€394m
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 2018.

Price performance

%	1m	3m	12m
Actual	9.2	48.2	42.6
Relative*	7.1	57.8	38.3

* % Relative to local index

Analyst

Dr Daniel Wilkinson

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 has received approval for its first company led trial, with patient enrollment expected shortly. Important progress includes an alliance with bluebird bio, a prominent T-cell immunology company, to utilise its TCR technology platform to identify four therapeutic candidates against four targets. This is positive as it validates its TCR technology and offers potential upside from any development. Medigene is well-funded to execute its clinical programme, as of 30th September cash was €55.4m.

INDUSTRY OUTLOOK

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

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

Sector: Pharma & healthcare

Price:	A$1.68
Market cap:	A$795m
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	31.3	24.9	(14.7)
Relative*	28.4	25.1	(18.8)

* % Relative to local index

Analyst

Dr Dennis Hulme

Mesoblast (MSB)

INVESTMENT SUMMARY

The potentially pivotal 55 pediatric patient acute graft vs host disease (GvHD) study met its primary efficacy outcome, reporting a 69% overall response rate vs 45% for historical controls (p=0.0003). The 100 day data is due in Q2 with 180 day safety data in Q3. This will lead to a fast track application to the FDA. A Phase III in chronic low back pain (CLBP) should enroll by Q1 CY18. The NIH funded Phase IIb in end-stage CHF patients with an LVAD should have full data by Q4 CY18. The Phase III trial in heart failure has enrolled over 400 of the 600 patient target. Cash on 31 Dec was US$47.4m. The H1 FY18 operating outflow was US$35.2m. In March, Mesoblast entered a US75m non-dilutive credit facility with Hercules and has drawn-down $35 already.

INDUSTRY OUTLOOK

Mesoblast is the leading mesenchymal stem cell company. It has a manufacturing alliance with Lonza. JCR Pharmaceuticals markets Mesoblast's GvHD therapy in Japan; H1 FY18 royalties were US$1.6m.

Y/E Jun	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (fd) (c)	P/E (x)	P/CF (x)
2016	44.2	(86.3)	(87.4)	(0.20)	N/A	N/A
2017	3.4	(82.4)	(84.9)	(18.10)	N/A	N/A
2018e	6.7	(83.2)	(85.0)	(18.92)	N/A	N/A
2019e	9.0	(85.4)	(88.7)	(18.85)	N/A	N/A

Sector: Pharma & healthcare

Price:	€2.15
Market cap:	€75m
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	3.4	(6.4)	(31.9)
Relative*	1.4	(0.3)	(33.9)

* % Relative to local index

Analyst

Dr Susie Jana

Mologen (MGN)

INVESTMENT SUMMARY

Mologen is developing novel immunotherapies for use in the post-chemo maintenance setting in cancer and for the treatment of infectious diseases. Mologen's efforts are focused on its lead product candidate lefitolimod. IMPALA a 540-pt pivotal study in metastatic colorectal cancer (mCRC) maintenance; recently completed full enrollment. Full data has been presented at ESMO 2017 for the 102-patient Phase II trial (IMPULSE) in small-cell lung cancer (SCLC). Topline results in the Phase I TEACH study to treat HIV (the first non-cancer study for MGN1703) have been announced. A 60-patient Phase I combination study of lefitolimod with Yervoy in solid tumours is now being conducted by MD Anderson, enrollment has started. Gross cash of €9.8m as of 30th September 2017. Mologen have recently signed a variety of financial agreements and a partnership with Oncologie which should enable sufficient funding into the 2nd half of 2018.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.0	(20.4)	(20.5)	(0.99)	N/A	N/A
2016	0.0	(20.6)	(20.8)	(0.84)	N/A	N/A
2017e	3.0	(18.0)	(18.4)	(0.54)	N/A	N/A
2018e	0.0	(15.5)	(15.9)	(0.46)	N/A	N/A

Sector: Pcare & household prd

Price:	54.5p
Market cap:	£38m
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	0.0	(25.9)	(4.4)
Relative*	(2.3)	(24.6)	(4.7)

* % Relative to local index

Analyst

Maxim Jacobs

NetScientific (NSCI)

INVESTMENT SUMMARY

NetScientific has a focused portfolio of potentially disruptive biomedical and healthcare technology investments. Recent years saw significant strategic changes, including senior management restructuring, with 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. Vortex recently made its first commercial sale of the VTX-1 liquid biopsy system and ProAxsis reported strong sales growth.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2015	0.1	(11.5)	(11.3)	(24.4)	N/A	N/A
2016	0.5	(12.6)	(12.3)	(20.6)	N/A	N/A
2017e	0.6	(10.8)	(9.5)	(12.5)	N/A	N/A
2018e	3.5	(10.6)	(12.0)	(14.5)	N/A	N/A

Sector: Pharma & healthcare

Price: SEK2.91
Market cap: SEK152m
Market NASDAQ OTCQX

Share price graph (SEK)

Company description

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

Price performance

%	1m	3m	12m
Actual	(9.1)	(15.4)	(38.6)
Relative*	(13.8)	(15.4)	(40.4)

* % Relative to local index

Analyst

Dr Jonas Peciulis

NeuroVive Pharmaceutical (NVP)

INVESTMENT SUMMARY

NeuroVive Pharmaceutical is a mitochondrial medicine specialist with a diversified asset portfolio. NeuroVive's core portfolio, which the company aims to develop internally, targets orphan indications: traumatic brain injury (TBI) with NeuroSTAT, various genetic mitochondrial diseases with KL1333 and NVP015, and mitochondrial myopathy with NVP025. Following the positive outcome in a Phase IIa study with NeuroSTAT, the drug candidate will proceed to a proof-of-concept study. The second most advanced product KL1333 was in-licensed from Yungjin Pharm in May 2017 and currently is in Phase I. Product portfolio for out-licensing includes NV556 and NVP022 for NASH and NVP024 for hepatocellular carcinoma. NeuroVive plans to conduct a rights issue (subject to approval at the EGM) expected to bring in a minimum guaranteed amount of at least SEK55m (gross).

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (öre)	P/E (x)	P/CF (x)
2016	0.0	(69.9)	(70.7)	(172.27)	N/A	N/A
2017	0.6	(67.9)	(70.1)	(149.31)	N/A	N/A
2018e	0.6	(83.4)	(83.5)	(132.45)	N/A	N/A
2019e	0.6	(124.3)	(124.4)	(160.95)	N/A	N/A

Sector: Pharma & healthcare

Price: CHF9.80
Market cap: CHF175m
Market Swiss Stock Exchange

Share price graph (CHF)

Company description

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

Price performance

%	1m	3m	12m
Actual	(3.0)	(9.7)	(62.7)
Relative*	(5.7)	(5.8)	(63.9)

* % 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 14 European countries and is generating sales through commercial partner Zambon (ex-Japan/Asia). Additionally, Xadago has been launched in the US by sublicensee US WorldMeds. Following positive phase II/III data (Japan), partner Meiji plan to submit the salfinamide MAA in Japan during 2018. Other pipeline assets include sarizotan for Rett syndrome, the pivotal trial STARS (placebo-controlled Phase II/III trial) to investigate breathing disorders associated with RS has initiated. Full data from the Phase II study of evenamide as an add-on to atypical antipsychotics, published in March 2017, demonstrated efficacy in terms of improvement on the symptoms of schizophrenia assessed by the Positive and Negative Syndrome Scale (PANSS). Newron raised CHF27m in 2017 in a private placement that it expects will help fund operations through 2019.

INDUSTRY OUTLOOK

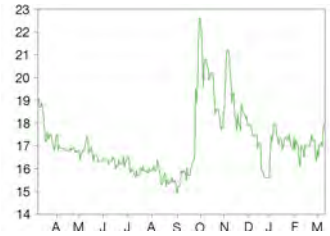
Parkinson's disease is a growing market. Xadago could have a unique position, with once-a-day dosing and a clean safety profile.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2016	6.7	(15.3)	(15.2)	(103.69)	N/A	N/A
2017	13.4	4.3	(5.3)	(32.32)	N/A	N/A
2018e	17.9	(15.9)	(15.3)	(81.36)	N/A	N/A
2019e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price: SEK17.98
Market cap: SEK771m
Market NASDAQ OMX First North

Share price graph (SEK)



Company description

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

Price performance

%	1m	3m	12m
Actual	6.5	2.7	(5.9)
Relative*	0.9	2.8	(8.5)

* % Relative to local index

Analyst

Dr Susie Jana

Nuevolution (NUE)

INVESTMENT SUMMARY

Nuevolution's proprietary Chemetics DNA-encoded screening platform technology enables fast and accurate small molecule drug discovery. The technology has received powerful external validation, including three recent collaborations (Amgen, Almirall and Janssen) that could generate significant value in the coming years. In addition, we expect Nuevolution to progress at least one internally generated asset into clinical development in the near future. Net cash of SEK 110.6m (31st December 2017) suggests a cash runway into FY18/19.

INDUSTRY OUTLOOK

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

Y/E Jun	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (öre)	P/E (x)	P/CF (x)
2016	21.3	N/A	(151.9)	(397.0)	N/A	N/A
2017	120.3	N/A	(9.4)	(59.0)	N/A	N/A
2018e	182.8	N/A	45.9	70.0	25.7	18.4
2019e	133.9	N/A	(7.0)	(11.0)	N/A	N/A

Sector: Pharma & healthcare

Price: €1.54
Market cap: €78m
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	(5.9)	55.4	(38.5)
Relative*	(9.5)	57.9	(42.7)

* % Relative to local index

Analyst

Dr Jonas Peciulis

Onxeo (ONXEO)

INVESTMENT SUMMARY

Onxeo's AsiDNA demonstrated the first preclinical PoC data showing potential to be administrated intravenously. Another dataset showed that AsiDNA in combination with its Beleodaq (belinostat) had synergistic effect on suppressing malignant cell growth in various cancers, while having no effect on healthy cells. AsiDNA, a first-in-class DNA repair inhibitor, has already been tested in a Phase I trial in melanoma with promising safety and initial efficacy results. Onxeo aims to initiate a Phase I trial in solid tumours in 2018. The company is also analyzing the full data from its Phase III trial with Livatag, which did not meet primary endpoints, and will decide further steps. In September 2017, Onxeo out-licensed its Phase III ready orphan oncology asset Validive to Monopar Therapeutics for a total deal value of $108m with up to double-digit royalties. Onxeo's Beleodaq is already launched in the US with partner Spectrum for r/r peripheral T-cell lymphoma (r/r PTCL), generating royalties for Onxeo.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	3.5	(20.4)	(20.0)	(43.53)	N/A	N/A
2016	4.4	(21.3)	(20.4)	(44.64)	N/A	N/A
2017e	10.2	(15.1)	(15.7)	(24.02)	N/A	N/A
2018e	2.6	(13.6)	(14.0)	(27.79)	N/A	N/A

Orexigen Therapeutics (OREX)

Sector: Pharma & healthcare

Price:	US$1.40
Market cap:	US$26m
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	53.8	1.4	(66.6)
Relative*	44.6	(3.5)	(71.6)

* % Relative to local index

Analyst

Maxim Jacobs

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 recently announced 48% higher prescription volume in Q417 compared to Q416. Contrave is approved under the brand Mysimba in most international markets. It has now launched in 23 countries, including Germany, Italy, Spain, and the United Kingdom. Launches in an additional 9 countries are expected by Q218. They also recently signed an agreement with Merck KGaA for Latin America including Mexico and Brazil.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	24.5	(60.3)	(67.3)	(523.81)	N/A	N/A
2016	33.7	(134.6)	(138.1)	(972.82)	N/A	N/A
2017e	84.7	(134.9)	(137.7)	(713.33)	N/A	N/A
2018e	156.5	(64.4)	(68.9)	(353.59)	N/A	N/A

Orexo (ORX)

Sector: Pharma & healthcare

Price:	SEK40.20
Market cap:	SEK1389m
Market	NASDAQ OMX Mid Cap

Share price graph (SEK)

Company description

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

Price performance

%	1m	3m	12m
Actual	13.7	2.6	28.4
Relative*	7.8	2.6	24.8

* % Relative to local index

Analyst

Dr Susie Jana

INVESTMENT SUMMARY

Orexo generated positive EBITDA and operating cash flow generation in FY17; highlighting a second profitable year. For 2018, US commercial and public formulary coverage has improved, which should have a positive impact on US Zubsolv sales from 1 January vs 2017 sales. IP infringement litigation remains an overhang. The court ruling on the '996 Zubsolv patent precludes Actavis generic launch before September 2019; Orexo has filed a separate '996 US IP infringement suit against Actavis for their Suboxone/Subutex generics. Zubsolv's IP portfolio includes patents extending to 2032 ('900 and '421) which with an appeal outcome on the invalidity of '330 expected around end-2017, represent significant hurdles ahead of generic launch. EMA has approved Zubsolv for Europe and partner Mundipharma should launch in Q218.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (öre)	P/E (x)	P/CF (x)
2016	705.9	74.4	35.6	84.4	47.6	7.5
2017	643.7	78.2	29.7	67.0	60.0	7.6
2018e	714.1	129.1	111.2	257.5	15.6	8.4
2019e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price:	€2.60
Market cap:	€89m
Market	Madrid Stock Exchange

Share price graph (€)

Company description

Oryzon Genomics is a Spanish biotech focused on epigenetics. ORY-1001 (Phase I/IIa) is being explored for acute leukaemias and SCLC; ORY-2001, its CNS product, is in Phase IIa stage for AD and MS, while newer asset ORY-3001 is being developed for certain orphan indications.

Price performance

%	1m	3m	12m
Actual	1.6	(13.9)	(36.9)
Relative*	1.1	(8.2)	(34.9)

* % 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 oncology product ORY-1001 is a first-in-class inhibitor of lysine specific demethylase 1 (LSD1) with positive data from the Phase I/IIa in acute leukaemia announced in December 2016. Oryzon's former partner Roche handed over the rights and the data from a Phase I trial with ORY-1001 in small cell lung cancer in January 2018. Oryzon will continue the development of ORY-1001 in both indications. Oryzon's lead CNS product, ORY-2001, targets Alzheimer's disease (Phase IIa planned), multiple sclerosis (Phase IIa initiated) and other neurodegenerative indications. ORY-3001 is a newer asset in preclinical development targeting certain orphan indications. The cash position was €35.3m at end Q417.

INDUSTRY OUTLOOK

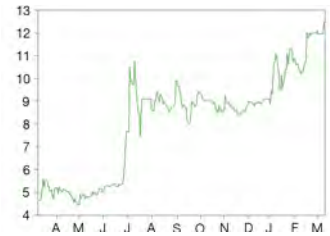
Epigenetics is a relatively young field in terms of drug development. HDACs were among the first epigenetic therapeutics brought to market, and although effective, they have side effects. Oryzon is among the leading clinical stage drug developers with a second generation of epigenetic therapeutics, which 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)
2016	5.0	(3.7)	(4.7)	(17.02)	N/A	N/A
2017	4.3	(3.5)	(4.6)	(14.29)	N/A	N/A
2018e	7.0	(4.7)	(5.6)	(16.34)	N/A	N/A
2019e	6.3	(6.4)	(7.3)	(21.26)	N/A	N/A

Sector: Pharma & healthcare

Price:	12.2p
Market cap:	£379m
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	18.5	36.9	163.2
Relative*	15.8	39.3	162.4

* % Relative to local index

Analyst

Dr Susie Jana

Oxford BioMedica (OXB)

INVESTMENT SUMMARY

We expect OXB's strategic vision to come to further fruition through 2018. Novartis's CAR-T Kymriah (OXB provide the lentiviral vector) is now approved (in pediatric ALL) by the FDA with approvals in Europe and in DLBCL expected in the near future. OXB should now start earning royalties and substantial manufacturing fees from Kymriah. The possible spin-out/out-licensing of its priority development pipeline assets is ongoing (OXB-102, OXB-202, and OXB-302). The company recently announced a partnership with Bioverativ (in field of hemophilia) potentially worth in excess of $100m. As of 31st July, OXB have £22.1m in cash.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2015	15.9	(12.5)	(16.6)	(0.49)	N/A	N/A
2016	27.8	(7.6)	(20.0)	(0.59)	N/A	N/A
2017e	40.4	2.4	(5.4)	(0.04)	N/A	34.1
2018e	47.2	10.5	2.9	0.22	55.5	59.8

Sector: Pharma & healthcare

Price:	NZ$0.40
Market cap:	NZ$189m
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	2.5	9.5	(26.0)
Relative*	(0.8)	7.8	(34.6)

* % Relative to local index

Analyst

Maxim Jacobs

Pacific Edge (PEB)

INVESTMENT SUMMARY

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

INDUSTRY OUTLOOK

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

Y/E Mar	Revenue (NZ$m)	EBITDA (NZ$m)	PBT (NZ$m)	EPS (c)	P/E (x)	P/CF (x)
2016	6.4	(14.9)	(15.5)	(4.1)	N/A	N/A
2017	9.3	(19.6)	(20.8)	(5.4)	N/A	N/A
2018e	12.3	(13.1)	(14.0)	(3.2)	N/A	N/A
2019e	21.2	(3.2)	(3.9)	(0.9)	N/A	N/A

Sector: Pharma & healthcare

Price:	€2.37
Market cap:	€145m
Market	FRA

Share price graph (€)

Company description

PAION is a specialty pharma company developing anaesthesia products. Its lead product, remimazolam, is partnered with Mundipharma in Japan, 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	(4.3)	(3.5)	3.1
Relative*	(6.1)	2.8	0.0

* % Relative to local index

Analyst

Dr Dennis Hulme

Paion (PA8)

INVESTMENT SUMMARY

Paion announced positive results from a Phase III trial of remimazolam for procedural sedation in bronchoscopy in June, adding to the positive results of a Phase III colonoscopy trial. It has successfully completed Phase I studies to assess abuse potential, the final step of its US clinical development program. In the bronchoscopy trial 82.5% of patients on remimazolam achieved the primary outcome vs 3.4% on placebo and 34.8% on midazolam. While replacing midazolam as the primary target, planned US reimbursement changes favouring less supervision of sedation by anaesthetists could further incentivise uptake of remimazolam. €29.6m cash at 30 September is sufficient to complete ongoing development and to file for procedural sedation in the US (filing by partner Cosmo expected H218). In December Paion outlicenced Japanese rights to Mundipharma, which will bear the cost of market authorisation (filing for general anaesthesia expected by mid-2018). Paion has outlined a €20-25m programme that could see it restart Phase III studies in GA in Europe.

INDUSTRY OUTLOOK

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

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

Sector: Pharma & healthcare

Price:	US$3.04
Market cap:	US$469m
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	26.7	6.7	41.4
Relative*	19.1	1.5	20.0

* % Relative to local index

Analyst

Maxim Jacobs

PDL BioPharma (PDLI)

INVESTMENT SUMMARY

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

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	590.4	550.4	530.1	203.69	1.5	1.6
2016	244.3	193.1	175.5	77.72	3.9	4.9
2017e	295.2	208.8	189.5	76.75	4.0	8.6
2018e	104.2	23.8	6.4	8.75	34.7	N/A

Sector: Pharma & healthcare

Price:	€1.81
Market cap:	€402m
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	10.9	(21.3)	(34.4)
Relative*	10.4	(16.1)	(32.3)

* % Relative to local index

Analyst

Maxim Jacobs

PharmaMar (PHM)

INVESTMENT SUMMARY

PharmaMar has built a pipeline of first-in-class cancer drugs for development with strategic partners. The company presented promising Zepsyre data in small cell lung cancer (SCLC) patients at the European Society for Medical Oncology (ESMO). Importantly, in Cohort B, which has the same dose as that being used in the Phase III trial, PFS was 5.3 months, which is higher than the 3-4 months typically seen with Topotecan, the current standard of care. The 600-patient Phase III ATLANTIS study in relapsed SCLC patients is ongoing and is approximately 75% enrolled with full enrollment expected in the June/July time-frame. Data from the ATLANTIS trial are expected in 2019. Beyond SCLC, PharmaMar is also about to embark on a Phase III trial in endometrial cancer, which is expected to commence around mid-2018.

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).

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2016	164.0	(11.5)	(24.7)	(10.8)	N/A	N/A
2017	162.6	(8.2)	(22.7)	(12.0)	N/A	740.7
2018e	168.8	17.7	5.8	2.6	69.6	N/A
2019e	177.3	19.5	7.2	2.7	67.0	34.2

Sector: Pharma & healthcare

Price:	NOK29.30
Market cap:	NOK632m
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	13.1	19.1	(21.0)
Relative*	9.1	14.7	(31.6)

* % Relative to local index

Analyst

Maxim Jacobs

Photocure (PHO)

INVESTMENT SUMMARY

Photocure is a commercial-stage Norwegian specialty pharmaceutical company that currently markets Hexvix/Cysview for diagnosing and managing bladder cancer. Recently, the US Centers for Medicare & Medicaid Services (CMS) issued a final rule that would improve reimbursement for a large number of procedures. Also, following positive Phase III results in the surveillance setting, the company received FDA approval for that indication in February (launch expected mid-year). Sales may have significant upside if the product successfully expands into the US bladder cancer surveillance market, which has 1.4m procedures per year, compared to its current market of 300,000 transurethral resection of the bladder (TURB) procedures.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (NOKm)	EBITDA (NOKm)	PBT (NOKm)	EPS (öre)	P/E (x)	P/CF (x)
2016	143.6	(8.0)	12.8	164.0	17.9	32.8
2017	150.9	(33.1)	(41.6)	(161.0)	N/A	N/A
2018e	200.9	(23.3)	(28.6)	(96.0)	N/A	N/A
2019e	288.8	49.9	44.8	149.0	19.7	26.0

Sector: Pharma & healthcare

Price:	€2.96
Market cap:	€39m
Market	Euronext Paris

Share price graph (€)

Company description

Pixium Vision develops bionic retinal implants for patients with severe vision loss. A wireless sub-retinal implant (Prima), designed for Dry-ARMD patients, is in a human feasibility study in Europe and is expected to start a US feasibility study in Q218.

Price performance

%	1m	3m	12m
Actual	(7.8)	8.6	(59.5)
Relative*	(11.3)	10.4	(62.2)

* % Relative to local index

Analyst

Pooya Hemami

Pixium Vision (PIX)

INVESTMENT SUMMARY

Pixium Vision is developing retinal bionic vision systems (BVS), or implants, that transform images into electrical signals to elicit visual perception in patients with severe retinal disease. It recently announced the first two human implantations of the Prima wireless photovoltaic sub-retinal implant, followed by successful activations (resulting in reported light perception). These events occurred as per the protocol of the five-patient European Prima feasibility study, designed to assess the device in patients with advanced atrophic Dry Age-related macular degeneration (ARMD). The firm also plans to start a US Prima feasiiblity study in Q218. Pixium held €10.5m in gross cash at 31 December 2017 and had up to c €6m available in an equity financing facility with Kepler Chevreux.

INDUSTRY OUTLOOK

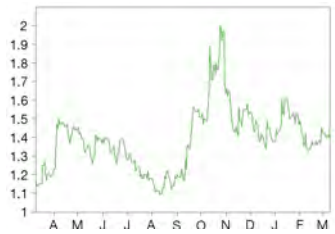
Second Sight (EYES) is commercialising an epiretinal implant (Argus II) in the US and EU approved for Retinitis Pigmentosa. Prima has been designed and being evaluated in clinical studies as a potential treatment option for Dry-ARMD, a common disease in aging population and a significant unmet medical need.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2016	2.5	(11.4)	(12.4)	(97.60)	N/A	N/A
2017	2.5	(11.7)	(13.5)	(102.07)	N/A	N/A
2018e	2.5	(8.2)	(10.1)	(71.05)	N/A	N/A
2019e	2.5	(16.1)	(20.9)	(144.08)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$1.46
Market cap:	US$160m
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	5.0	(2.7)	15.5
Relative*	2.8	(5.1)	9.3

* % 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 is advancing PLX-PAD in its Phase III study of critical limb ischemia (CLI) and Phase II study of intermittent claudication (IC), with the latter expecting results in Q218. Additionally the company received an orphan designation for PLX-R18 for acute radiation syndrome (ARS) currently in non-human primate studies and expanded its Phase I study for support of stem cell transplant to additional sites.

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)
2016	2.8	(25.5)	(20.2)	(25.36)	N/A	N/A
2017	0.0	(30.2)	(24.2)	(27.63)	N/A	N/A
2018e	0.0	(34.9)	(28.5)	(26.72)	N/A	N/A
2019e	0.0	(48.2)	(45.0)	(38.88)	N/A	N/A

Sector: Pharma & healthcare

Price:	€12.00
Market cap:	€99m
Market	Euronext Amsterdam

Share price graph (€)

Company description

Probiodrug is a German biopharmaceutical company developing drugs for AD. Lead product PQ912 has just completed a Phase IIa study with encouraging results. PQ912 is a small molecule inhibitor of glutaminyl cyclase (QC), which is essential for the formation of pGlu-Abeta. Two further products are in preclinical stages.

Price performance

%	1m	3m	12m
Actual	(4.0)	5.4	(24.0)
Relative*	(7.4)	7.3	(28.1)

* % Relative to local index

Analyst

Dr Jonas Peciulis

Probiodrug (PBD)

INVESTMENT SUMMARY

Probiodrug is developing a clinical pipeline focusing on the novel target of pGlu-Abeta, a toxic variant of amyloid-beta (Abeta) that has been implicated in the initiation and sustainment of the pathological cascade that leads to Alzheimer's disease (AD). Lead candidate PQ912 is an inhibitor of the enzyme glutaminyl cyclase, which is essential for the formation of pGlu-Abeta. Initial results from the Phase IIa study, SAPHIR, were reported on 12 June 2017. While primarily safety/tolerability study, several secondary endpoints especially piqued our interest, with CSF biomarker, EEG and a couple of cognitive tests pointing to a positive overall picture of the dataset. Probiodrug has started preparations for the Phase IIb development. Preclinical data also showed that PQ912 could be effective in Huntington's disease in an animal model. Subject to further preclinical work, PQ912 could be fast-tracked to the clinic in this indication.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.0	(13.3)	(13.5)	(196.10)	N/A	N/A
2016	0.0	(13.7)	(13.8)	(181.30)	N/A	N/A
2017e	0.0	(10.5)	(9.6)	(104.25)	N/A	N/A
2018e	0.0	(8.6)	(8.7)	(105.76)	N/A	N/A

Sector: Pharma & healthcare

Price:	€2.34
Market cap:	€26m
Market	Euronext Paris

Share price graph (€)

Company description

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

Price performance

%	1m	3m	12m
Actual	(15.5)	(20.9)	(58.1)
Relative*	(18.7)	(19.6)	(60.9)

* % Relative to local index

Analyst

Maxim Jacobs

Quantum Genomics (ALQGC)

INVESTMENT SUMMARY

Quantum Genomics is investigating brain aminopeptidase A inhibitors, a new class of drug, for the treatment of hypertension and heart failure. They recently announced results from their 34-patient Phase IIa study of QGC001 for the treatment of mild/moderate arterial hypertension. It showed a 2.7 mmHg placebo-adjusted reduction in ambulatory systolic blood pressure (SBP) and a 4.7 mmHg reduction in in-office SBP. The follow-up 250 patient NEW-HOPE study was recently launched with data expected in H119. Data in heart failure is expected in H118.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.1	(4.3)	(4.5)	(54.70)	N/A	N/A
2016	0.0	(6.2)	(6.2)	(59.79)	N/A	N/A
2017e	0.0	(8.6)	(8.6)	(75.96)	N/A	N/A
2018e	0.0	(10.9)	(11.9)	(91.00)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$5.84
Market cap:	US$125m
Market	NASDAQ, TASE

Share price graph (US$)

Company description

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

Price performance

%	1m	3m	12m
Actual	7.4	32.2	(39.0)
Relative*	0.9	25.8	(48.2)

* % Relative to local index

Analyst

Dr Jonas Peciulis

RedHill Biopharma (RDHL)

INVESTMENT SUMMARY

RedHill has a broad R&D pipeline, but is focusing on GI and inflammatory diseases. The most advanced assets are TALICIA (RHB-105) for H. pylori infection (top-line results from confirmatory Phase III expected in H218); RHB-104 for Crohn's disease (top-line results from first Phase III expected in mid-2018) and non-tuberculous mycobacteria infections (pivotal Phase III trial to start in mid-2018); and BEKINDA for both gastroenteritis (successful results from first Phase III announced in June 2017) and diarrhoea-predominant IBS (positive final Phase II results announced in January 2018). RedHill has established a commercial business in the US and is promoting three GI products (Donnatal, EnteraGam and Esomeprazole Strontium DR Capsules 49.3mg) in 2017.

INDUSTRY OUTLOOK

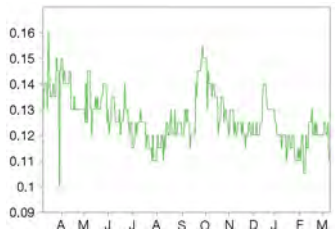
RedHill's main focus on GI and inflammation include a range of conditions, which although can be treated with a variety of innovative and established products, there is still an unmet need in each of the diseases. In our view, carefully positioned, innovative solutions for the patients will attract attention.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.0	(21.9)	(21.1)	(19.03)	N/A	N/A
2016	0.1	(30.5)	(29.4)	(22.85)	N/A	N/A
2017e	7.5	(49.7)	(47.4)	(24.88)	N/A	N/A
2018e	30.0	(34.2)	(34.4)	(13.56)	N/A	N/A

Sector: Pharma & healthcare

Price:	A$0.11
Market cap:	A$23m
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	(4.3)	(12.0)	(15.4)
Relative*	(6.4)	(11.9)	(19.4)

* % Relative to local index

Analyst

Dr Dennis Hulme

Regeneus (RGS)

INVESTMENT SUMMARY

Regeneus is developing its mesenchymal stem cell technology for musculoskeletal conditions in humans (Progenza) and animals (CryoShot). It has entered a US$16.5m collaboration with AGC Asahi Glass (AGC) for manufacture of Progenza cells for the Japanese market. Regeneus and AGC have formed a 50:50 JV which is seeking to sub-license partners for clinical development and commercialisation of Progenza in Japan in a number of indications, with the first Progenza clinical development licence targeted for H118. Japanese legislation offers an accelerated path to market for regenerative medicines. Progenza therapy reduced osteoarthritis knee pain in Phase I. Regeneus holds global rights to autologous cancer vaccines for human (RGSH4K, in Phase I) and veterinary (Kvax) applications. Its Sygenus topical secretions technology improved the appearance of acne in adults in a clinical study, and produced better pain relief than morphine in preclinical studies.

INDUSTRY OUTLOOK

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

Y/E Jun	Revenue (A$m)	EBITDA (A$m)	PBT (A$m)	EPS (c)	P/E (x)	P/CF (x)
2016	1.7	(3.4)	(3.6)	(1.70)	N/A	N/A
2017	10.0	4.9	3.3	1.57	7.0	6.4
2018e	7.8	2.1	1.9	0.89	12.4	7.1
2019e	1.2	(4.2)	(4.4)	(2.08)	N/A	N/A

Sector: Pharma & healthcare

Price:	96.0p
Market cap:	£30m
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 IIb) and human retinal progenitor cells for retinitis pigmentosa (Phase I/II).

Price performance

%	1m	3m	12m
Actual	(5.9)	(46.7)	(60.8)
Relative*	(8.0)	(45.7)	(60.9)

* % Relative to local index

Analyst

Andy Smith

ReNeuron Group (RENE)

INVESTMENT SUMMARY

ReNeuron is focused on two cell therapy-based programmes. This includes the CTX neural stem cell programme which recently announced that positive response rates in key measures were sustained after 12 months of treatment. ReNeuron will be moving forward with a Phase IIb in the US in FY18 with data expected around H219. ReNeuron also has the hRPC (human retinal progenitor cells) programme for retinitis pigmentosa (currently in Phase II). It will also be commencing a Phase II trial in cone-rod dystrophy. ReNeuron has promising early data for its exosome nanomedicine platform in oncology.

INDUSTRY OUTLOOK

Limited drug development has targeted chronic stroke to date, which is the area in which ReNeuron is attempting to demonstrate a meaningful reduction in disability. If shown, it would offer a compelling case for further development and/or partnering.

Y/E Mar	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2016	0.0	(13.6)	(12.8)	(43.51)	N/A	N/A
2017	0.0	(19.7)	(18.2)	(49.21)	N/A	N/A
2018e	0.0	(21.6)	(21.3)	(63.41)	N/A	N/A
2019e	0.0	(22.4)	(22.9)	(68.12)	N/A	N/A

Sector: Pharma & healthcare

Price: €17.30
Market cap: €865m
Market Madrid Stock Exchange

Share price graph (€)

Company description

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

Price performance

%	1m	3m	12m
Actual	7.5	4.2	20.0
Relative*	6.9	11.0	23.8

* % Relative to local index

Analyst

Dr Susie Jana

ROVI Laboratorios Farmaceuticos (ROVI)

INVESTMENT SUMMARY

ROVI, a profitable, speciality healthcare company, markets ~30 proprietary and in-licensed products across nine core franchises mainly in its domestic Spanish market. ROVI is at a major inflection point; it has launched its internally developed biosimilar enoxaparin into multiple European countries ahead of any competition; this is a key driver of sales and operating growth in the medium term. R&D progress continues with the long-acting DORIA (schizophrenia) and letrozole (breast cancer) having entered Phase III and Phase I of clinical-stage development respectively.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2016	265.2	39.3	30.3	0.58	2982.8	36.9
2017	275.6	30.5	20.3	0.40	4325.0	29.8
2018e	293.6	26.4	16.4	0.31	5580.6	18.8
2019e	314.9	37.5	27.1	0.52	3326.9	48.1

Sector: Pharma & healthcare

Price: 60.10PLN
Market cap: PLN828m
Market Warsaw Stock Exchange

Share price graph (PLN)

Company description

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

Price performance

%	1m	3m	12m
Actual	5.3	9.5	89.5
Relative*	6.5	12.0	76.2

* % Relative to local index

Analyst

Dr Jonas Peciulis

Selvita (SLV)

INVESTMENT SUMMARY

Selvita is an R&D and drug discovery services company. In 9M17 sales jumped by 65% y-o-y reflecting strong organic growth and an upfront payment from Berlin Chemie/Menarini. Selvita out-licensed its lead drug SEL24's to Menarini in March 2017 with a total potential value of the deal of €89.1m. SEL24 is a dual PIM/FLT3 inhibitor in Phase I/II for AML and the first such compound to progress to Phase I/II, to our knowledge. Second lead product is SEL120, a CDK8 inhibitor, partnered with the Leukemia & Lymphoma Society for AML and is undergoing IND-enabling studies. Multiple collaborations signed with partners such as Merck KGaA, H3 Biomedicine (Eisai) and JV (Nodthera) with Epidarex Capital validate Selvita's research capabilities. Recently, Selvita completed a share issue raising PLN134m, which will be a part of the total funds of PLN390m the company expects to invest until 2021 significantly ramping up its R&D 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 advantages. Contract research is a fiercely competitive, but still rapidly growing market and we believe Selvita's geographical location and lower cost benefits make it well placed to compete.

Y/E Dec	Revenue (PLNm)	EBITDA (PLNm)	PBT (PLNm)	EPS (gr)	P/E (x)	P/CF (x)
2015	56.1	10.2	7.5	83.58	71.9	N/A
2016	66.7	8.3	4.6	64.22	93.6	N/A
2017e	106.0	17.9	11.4	81.31	73.9	67.1
2018e	99.2	5.8	0.3	1.96	3066.3	N/A

Sector: Pharma & healthcare

Price:	US$2.47
Market cap:	US$176m
Market	NASDAQ

Share price graph (US$)

Company description

Sierra Oncology is developing new therapies targeting the DNA damage response to treat cancer. It is in Phase I/II trials of SRA737, an Chk1 inhibitor, as a monotherapy and in combination with low dose gemcitabine.

Price performance

%	1m	3m	12m
Actual	(9.9)	(15.7)	72.7
Relative*	(15.3)	(19.8)	46.6

* % Relative to local index

Analyst

Maxim Jacobs

Sierra Oncology (SRRA)

INVESTMENT SUMMARY

Sierra Oncology is a drug developer targeting the DNA damage response (DDR) network to treat cancer. The company has two Phase I/II trials with SRA737 targeting checkpoint kinase 1 (Chk1) in patients with genetic tumor types expected to respond to the drug. Inhibition of Chk1 is lethal in cells with defective p53 (among others), one of the most common cancer mutations, and may also be potentiated by low-dose chemotherapy. It is in Phase I/II clinical trials of SRA737, both as a monotherapy and in combination with low dose gemcitabine. There is a planned Phase I/II trial in combination with the PARPi niraparib in Q418. It is also in preclinical development of SRA141, a Cdc7 inhibitor with a different DNA damage response mechanism.

INDUSTRY OUTLOOK

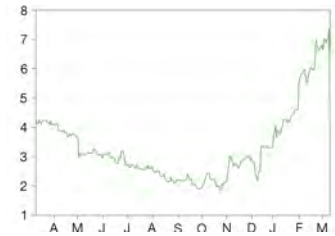
Chk1 has been a target of interest across the industry with previous programs AstraZeneca, Merck, and Pfizer among others and ongoing studies at Eli Lilly and Roche.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (fd) (c)	P/E (x)	P/CF (x)
2015	0.0	(32.5)	(32.6)	(226.2)	N/A	N/A
2016	0.0	(41.6)	(41.4)	(136.9)	N/A	N/A
2017e	0.0	(38.2)	(38.1)	(76.0)	N/A	N/A
2018e	0.0	(43.1)	(42.8)	(76.6)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$4.24
Market cap:	US$146m
Market	NASDAQ

Share price graph (US$)



Company description

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

Price performance

%	1m	3m	12m
Actual	(23.6)	71.0	1.0
Relative*	(28.2)	62.7	(14.3)

* % Relative to local index

Analyst

Maxim Jacobs

Sunesis Pharmaceuticals (SNSS)

INVESTMENT SUMMARY

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

INDUSTRY OUTLOOK

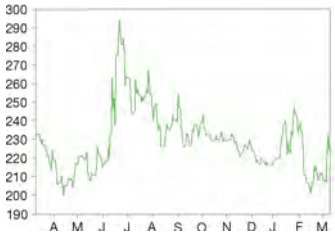
Sunesis is an oncology company with an early stage asset with a validated target targeting patients that are in B-cell malignancies.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2016	2.5	(36.3)	(38.0)	(242.37)	N/A	N/A
2017	0.7	(34.4)	(35.5)	(144.63)	N/A	N/A
2018e	0.0	(33.5)	(36.8)	(102.40)	N/A	N/A
2019e	0.0	(33.4)	(38.4)	(102.31)	N/A	N/A

Sector: Pharma & healthcare

Price:	¥234.00
Market cap:	¥13529m
Market	Tokyo

Share price graph (¥)



Company description

SymBio is a Japanese specialty pharma company with a focus on oncology and haematology. Treakisym is SymBio's branded formulation of bendamustine HCl. Rigosertib was in-licensed from Onconova.

Price performance

%	1m	3m	12m
Actual	13.0	7.8	0.9
Relative*	14.1	13.4	(8.6)

* % Relative to local index

Analyst

Dr Dennis Hulme

SymBio Pharmaceuticals (4582)

INVESTMENT SUMMARY

SymBio is well on the way to becoming a key speciality pharma partner for Asia-Pacific markets. The company has in-licensing deals for two orphan blood cancer products. Treakisym was approved for r/r low grade NHL/MCL in 2010 and during 2016 received approvals in CLL and first-line low grade NHL/MCL; these additional approvals saw net sales increase by 45% to JPY3.4bn in 2017. In August SymBio initiated a Phase III trial in Japan of Treakisym in r/r diffuse large B-cell lymphoma, while in September it in-licensed liquid formulations that will provide Treakisym with patent protection that extends to 2031. Intravenous Rigosertib is in development for r/r higher-risk myelodysplastic syndromes (HR-MDS) and is in a pivotal Phase III global study which has expanded from 225 to 360 patients following an interim analysis in early 2018; SymBio is enrolling patients in Japan and is aiming for potential filing in 2021. SymBio intends to participate in a planned global trial of high-dose oral rigosertib in untreated HR-MDS patients.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (¥m)	EBITDA (¥m)	PBT (¥m)	EPS (fd) (¥)	P/E (x)	P/CF (x)
2015	1933.0	(2527.0)	(2630.0)	(81.3)	N/A	N/A
2016	2368.0	(2101.0)	(2317.0)	(59.0)	N/A	N/A
2017e	3599.0	(3903.0)	(4000.0)	(82.4)	N/A	N/A
2018e	4248.0	(1987.0)	(1999.0)	(39.5)	N/A	N/A

Sector: Pharma & healthcare

Price:	NOK16.06
Market cap:	NOK845m
Market	Oslo

Share price graph (NOK)

Company description

Targovax is an immuno-oncology company headquartered in Oslo, Norway, with two technology platforms that are being developed in a number of oncological indications. ONCOS-102 is an oncolytic virus technology. TG is a therapeutic cancer vaccine platform comprising of peptides mimicking the most common RAS oncogenic mutations.

Price performance

%	1m	3m	12m
Actual	(4.4)	(5.0)	(37.3)
Relative*	(7.8)	(8.5)	(45.7)

* % Relative to local index

Analyst

Dr Jonas Peciulis

Targovax (TRVX)

INVESTMENT SUMMARY

Targovax is an immuno-oncology (IO) company specialising in two distinct, but complementary approaches. ONCOS-102 is a genetically engineered adenovirus being tested in advanced melanoma, mesothelioma and three other indications run by partners. One of the key catalysts this year is the Phase I melanoma trial with interim data due in H218. From the TG platform, two mutant RAS-specific, neo-antigen cancer vaccines are in development for colorectal and pancreatic cancers, for which interim Phase I/II results with positive survival data were presented at ASCO in June 2017. Full data are due in H118. Targovax's core proposition is to use its products as immune response primers and combine with other anticancer therapies, such as checkpoint inhibitors, for increased efficacy.

INDUSTRY OUTLOOK

Checkpoint inhibitors (CPIs) gained popularity over the past several years, however, a large proportion of patients do not respond to CPIs. Both Targovax's platform technologies are designed to prime immune response to cancers, which offers synergies for use in combination with other immuno-oncology therapies.

Y/E Dec	Revenue (NOKm)	EBITDA (NOKm)	PBT (NOKm)	EPS (fd) (öre)	P/E (x)	P/CF (x)
2015	0.1	(89.5)	(89.9)	(505.87)	N/A	N/A
2016	0.0	(119.2)	(122.7)	(354.65)	N/A	N/A
2017e	0.0	(123.5)	(122.7)	(258.36)	N/A	N/A
2018e	0.0	(125.8)	(124.2)	(235.30)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$5.52
Market cap:	US$6m
Market	NASDAQ, TASE

Share price graph (US$)

Company description

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

Price performance

%	1m	3m	12m
Actual	(1.8)	3.2	(31.2)
Relative*	(7.7)	(1.8)	(41.6)

* % Relative to local index

Analyst

Maxim Jacobs

Therapix Biosciences (TRPX)

INVESTMENT SUMMARY

Therapix is investigating the potential of new formulations of cannabinoids to address under-served diseases of the brain. The lead clinical program, THX-TS01, is currently in Phase II trials testing its potential for treating Tourette's in adults (readout H118). THX-ULD01, for the treatment of traumatic brain injury (TBI) is scheduled to begin Phase I trials in Q118. Therapix recently announced it is expanding its cannabinoid-based clinical pipeline to potentially treat obstructive sleep apnea (OSA) with THX-OSA01, an oral THC/PEA formulation, in a thirty-patient Phase IIa trial. In addition, Therapix is exploring the potential of a cannabinoid composition containing an antibacterial agent for the treatment of infectious diseases in preclinical trials.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2015	N/A	N/A	N/A	N/A	N/A	N/A
2016	0.0	(1.7)	(1.7)	(179.9)	N/A	N/A
2017e	0.0	(4.0)	(4.3)	(118.4)	N/A	N/A
2018e	0.0	(7.7)	(7.7)	(200.1)	N/A	N/A

Sector: Pharma & healthcare

Price:	€2.99
Market cap:	€186m
Market	Euronext Paris

Share price graph (€)

Company description

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

Price performance

%	1m	3m	12m
Actual	(2.3)	15.0	17.7
Relative*	(6.0)	16.9	9.7

* % Relative to local index

Analyst

Dr Daniel Wilkinson

Transgene (TNG)

INVESTMENT SUMMARY

Transgene is focused on the development of its cancer immunotherapy products (oncolytic virus Pexa-Vec, MUC1 cancer vaccine TG4010 and TG4001 for HPV) in combination with immune checkpoint inhibitors (ICIs) and infectious disease programmes (TG1050 for HBV). The company is running 10 clinical trials, including a Phase 2 TG4010 combination trial with Opdivo and chemotherapy in 1L NSCLC, a Phase 2 trial testing TG4010+Opdivo in 2L NSCLC, a Phase 2 with Pexa-Vec+Opdivo in 1L advanced liver cancer, a Phase 1b/2 trial of TG4001 in HPV positive cancers in combination with avelumab, a Phase 1 trial with Pexa-Vec+Yervoy in solid tumours and a Phase 1/2 of Pexa-Vec+metronomic cyclophosphamide in HER2 negative breast cancer. Transgene and partner Sillajen are running a global 600-patient Phase 3 study in liver cancer. Gross cash at 30 September 2017 was €40m. Transgene recently raised gross €14.4m by the way of a capital increase, extending financial visibility until mid-2019.

INDUSTRY OUTLOOK

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

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

Sector: Pharma & healthcare

Price:	€1.29
Market cap:	€27m
Market	Euronext Paris

Share price graph (€)

Company description

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

Price performance

%	1m	3m	12m
Actual	(9.4)	(9.4)	(29.7)
Relative*	(12.9)	(7.9)	(34.5)

* % Relative to local index

Analyst

Dr John Savin

TxCell (TXCL)

INVESTMENT SUMMARY

TxCell has a viable manufacturing route for its novel CAR Treg product giving low inter-patient variability with potentially consistent therapeutic results; more details are due for disclosure in late February. Regulatory filings for a dose-ranging clinical trial in transplant are expected by late 2018. On the financial side, given the expiry of the warrants, TxCell has drawn €1.8m of convertible loans to support CAR Treg development. Cash on 31 December 2017 was €4.9m but the balance sheet will not be published till mid March. Shares in issue are 21.8m and all the €5m loans from 2016 have been converted.

INDUSTRY OUTLOOK

TxCell is focused on CAR Treg development using humanised chimeric antigen receptor (CAR) technology similar to that in CAR T-cell cancer therapy. A granted European patent offers broad protection; Novartis has a small Treg study which shows big pharma interest. Other projects are at an earlier-stage of research and these could target broader markets.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2015	0.9	(10.8)	(10.8)	(88.4)	N/A	N/A
2016	0.2	(11.9)	(12.7)	(97.5)	N/A	N/A
2017e	0.3	(9.3)	(9.5)	(47.0)	N/A	N/A
2018e	0.3	(11.3)	(11.5)	(52.6)	N/A	N/A

Sector: Pharma & healthcare

Price:	4.2p
Market cap:	£22m
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	(36.0)	(65.5)	(81.9)
Relative*	(37.5)	(64.9)	(82.0)

* % Relative to local index

Analyst

Dr Susie Jana

Vernalis (VER)

INVESTMENT SUMMARY

Following a disappointing uptake in the current cough cold season (~65% of the season is complete), Vernalis has downgraded guidance on prescription numbers and, in light of slow progress in the US cough and flu business, is seeking alternative strategies for the US business and the group. As such, we place our financial forecasts and valuation under review until we receive clarity on strategic next steps and the potential impact on cash burn, given a cash balance of £44m (unaudited at 31 January 2018).

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.

Y/E Jun	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2016	12.0	(23.9)	(16.3)	(3.4)	N/A	N/A
2017	20.8	(23.3)	(21.3)	(3.6)	N/A	N/A
2018e	N/A	N/A	N/A	N/A	N/A	N/A
2019e	N/A	N/A	N/A	N/A	N/A	N/A

Sector: Pharma & healthcare

Price:	A$1.68
Market cap:	A$466m
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	151.9	170.2	65.0
Relative*	146.4	170.5	57.2

* % Relative to local index

Analyst

Dr Dennis Hulme

Viralytics (VLA)

INVESTMENT SUMMARY

Viralytics agreed in February to be acquired by Merck & Co. for A$502m (US$395m) equivalent to A$1.75 per share. The acquisition price represents a 160% premium to the one-month VWAP. A shareholder meeting to approve the acquisition by way of a scheme of arrangement is expected to be held in May. Viralytics had reported promising data from a number of clinical trials for its Cavatak oncolytic virus immunotherapy. Of note, the CAPRA trial of intra-lesional (IL) Cavatak in combination with Merck's Keytruda in melanoma reported a 61% response rate in the first 23 of 50 patients, while in the Keynote 200 trial of IV Cavatak + Keytruda, responses were observed in 3/6 advanced lung cancer and 5/13 bladder cancer patients. In the MITCI study of IL Cavatak + the CTLA4 inhibitor Yervoy the response rate to date is 29% (2/7) in patients who had failed single line anti-PD1 therapies; we note that Merck has a CTLA4 inhibitor MK-1308 in clinical trials, which could potentially be combined with Cavatak in place of Yervoy.

INDUSTRY OUTLOOK

The December 2016 licence deal between Bristol-Myers Squibb and PsiOxus for its preclinical oncolytic virus NG-348 highlights the potential value of oncolytic virotherapy products; terms included US$50m upfront and up to US$886m in milestones.

Y/E Jun	Revenue (A$m)	EBITDA (A$m)	PBT (A$m)	EPS (fd) (c)	P/E (x)	P/CF (x)
2016	4.7	(8.5)	(8.0)	(3.8)	N/A	N/A
2017	6.5	(11.7)	(11.3)	(4.7)	N/A	N/A
2018e	5.9	(12.4)	(12.0)	(5.0)	N/A	N/A
2019e	6.1	(12.6)	(12.5)	(5.2)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$2.29
Market cap:	US$69m
Market	NYSE MKT

Share price graph (US$)

Company description

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

Price performance

%	1m	3m	12m
Actual	(24.7)	(32.6)	(49.2)
Relative*	(29.2)	(35.9)	(56.9)

* % Relative to local index

Analyst

Maxim Jacobs

VolitionRx (VNRX)

INVESTMENT SUMMARY

VolitionRx's proprietary Nu.Q™ technology detects the level and structure of nucleosomes in the blood using one drop of blood serum. It is currently focused on colorectal cancer (CRC), a very large opportunity with around 225 million people eligible for screening (US/EU). VolitionRx will be participating in a 13,500 undiagnosed person trial in the US to gain FDA approval. For Europe, the company is expecting readouts from 4300 and 12,000+ sample studies in Q218 and H218 respectively to support a CE Mark.

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)
2016	0.0	(12.4)	(12.5)	(54.02)	N/A	N/A
2017	0.0	(15.0)	(15.1)	(57.29)	N/A	N/A
2018e	0.1	(18.9)	(18.9)	(59.62)	N/A	N/A
2019e	1.3	(21.5)	(22.1)	(66.85)	N/A	N/A

Company coverage

Company	Note	Date published
4SC	Outlook; Update	30/10/2017; 09/02/2018
aap Implantate	QuickView; QuickView	28/11/2017; 21/02/2018
Abzena	Update; Update	20/09/2017; 21/12/2017
Acarix	Update; Outlook	13/07/2017; 06/02/2018
AFT Pharmaceuticals	Update; Outlook	31/05/2017; 12/12/2017
Allium Medical	Update; Update	05/09/2017; 02/01/2018
Angle	Flash; Flash	16/06/2017; 05/07/2017
ASLAN Pharmaceuticals	Initiation; Update	07/11/2017; 10/01/2018
Atossa Genetics	Update; Outlook	30/05/2017; 16/11/2017
Basilea Pharmaceutica	Update; Update	07/12/2017; 08/03/3018
Bio-Light Life Sciences	Update; Update	12/09/2017; 28/11/2017
Carmat	Outlook; Update	31/07/2017; 21/12/2017
Cellular Biomedicine Group	Initiation	12/10/2017
Celyad	Update; ADR Update	30/10/2017; 30/10/2017
Clal Biotechnology Industries	Initiation	15/01/2018
Collplant Holdings	Update; Update	18/09/2017; 04/12/2017
Crossject	Update; Outlook	07/04/2017; 03/10/2017
e-Therapeutics	Update; Update	04/10/2017; 05/01/2018
Genkyotex	Outlook; Update	30/05/2017; 06/07/2017
Hutchison China Meditech	Update; ADR Update	18/10/2017; 19/10/2017
Hybrigenics	Update; Outlook	15/11/2017; 31/01/2018
Immunovia	Update; Update	02/10/2017; 07/12/2017
Immutep	Update; ADR Update	11/12/2017; 12/12/2017
Intec Pharma	Update; Outlook	29/08/2017; 08/01/2018
International Stem Cell	Update; Update	24/05/2017; 03/01/2018
Kazia Therapeutics	Update; ADR Update	21/12/2017; 21/12/2017
Kiadis Pharma	Update; Update	08/12/2016; 06/01/2017
MagForce	Update; Update	06/10/2017; 23/02/2018
Medigene	Update; Update	03/08/2017; 09/11/2017
Mesoblast	Update; Update	07/06/2017; 07/11/2017
Mologen	Outlook; Update	25/09/2017; 10/11/2017
NetScientific	Update; Update	15/12/2017; 12/01/2018
NeuroVive Pharmaceutical	Update; Update	14/12/2017; 05/03/2018
Newron Pharmaceuticals	Flash; Outlook	22/03/2017; 13/10/2017
Nuevolution	Update; Update	28/09/2017; 24/11/2017
Onxeo	Flash; Outlook	14/09/2017; 29/11/2017
Orexigen Therapeutics	Update; Update	17/08/2017; 04/12/2017
Orexo	Update; Update	08/08/2017; 13/12/2017
Oryzon Genomics	Update; Update	14/12/2017; 08/03/2018
Oxford BioMedica	Update; Flash	01/09/2017; 16/02/2018
Pacific Edge	Update; Outlook	01/06/2017; 09/01/2018
Paion	Update; Update	14/08/2017; 10/11/2017
PDL BioPharma	Update; Update	10/08/2017; 20/11/2017
PharmaMar	Update; Update	23/01/2018; 14/03/2018
Photocure	Outlook; Update	13/11/2017; 13/03/2018

Pixium Vision	Flash; Outlook	30/01/2018; 08/03/2018
Pluristem Therapeutics	Outlook; Update	05/02/2018; 28/02/2018
Probiodrug	Update; Update	16/06/2017; 18/09/2017
Quantum Genomics	Update; Update	27/06/2017; 05/10/2017
Redhill Biopharma	Update; Update	22/08/2017; 27/11/2017
Regeneus	Update; Update	31/05/2017; 07/09/2017
ReNeuron Group	Update; Update	21/12/2017; 14/02/2018
ROVI Laboratorios Farmaceuticos	Update; Update	14/11/2017; 27/02/2018
Selvita	Outlook; Update	28/11/2017; 21/12/2017
Sierra Oncology	Initiation	18/09/2017
Sunesis Pharmaceuticals	Outlook; Update	16/11/2017; 13/03/2018
SymBio Pharmaceuticals	Update; ADR Update	14/12/2017; 15/12/2017
Targovax	Initiation	08/11/2017
Therapix Biosciences	Update; Update	18/08/2017; 17/11/2017
Transgene	Outlook; Update	18/07/2017; 01/11/2017
TxCell	Update; Outlook	09/10/2017; 22/02/2018
Vernalis	Outlook; Flash	22/11/2017; 28/02/2018
Viralytics	Outlook; Outlook	19/04/2017; 05/12/2017
VolitionRx	Outlook; Update	28/11/2017; 13/03/2018

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

QuickViews

To view the QuickViews we publish see the healthcare sector profile page on our website.

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