EDISON

Edison Healthcare Insight

August 2018

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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.

Contents

Prices at 10 August 2018

Published 16 August 2018

Welcome to the August edition of the Edison Healthcare Insight. In this edition we have profiled 67 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

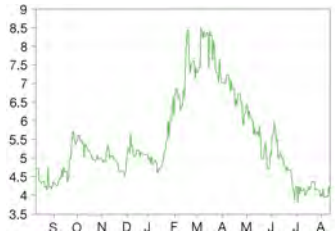
Prices at 10 August

US$/£ exchange rate: 0.7773
€/£ exchange rate: 0.8999
C$/£ exchange rate: 0.5965
A$/£ exchange rate: 0.5795
NZ$/£ exchange rate: 0.5164
SEK/£ exchange rate: 0.0866
DKK/£ exchange rate: 0.1207
NOK/£ exchange rate: 0.0941
JPY/£ exchange rate: 0.0070
NIS/£ exchange rate: 0.2100
CHF/£ exchange rate: 0.7827

Sector: Pharma & healthcare

Price:	€4.01
Market cap:	€123m
Market	FRA

Share price graph (€)



Company description

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

Price performance

%	1m	3m	12m
Actual	(4.3)	(30.9)	(15.0)
Relative*	(2.9)	(27.5)	(17.8)

* % Relative to local index

Analyst

Dr Jonas Peciulis

4SC (VSC)

INVESTMENT SUMMARY

4SC's two lead assets are Resminostat (a broad-spectrum HDAC inhibitor) and Domatinostat (4SC-202; HDAC Class I specific inhibitor). Resminostat is uniquely positioned as a maintenance therapy to make remissions more durable for patients with advanced CTCL, who have achieved remission with systemic therapy. Enrolment is on track to reach 100 patients at the end of 2018 (4SC recruiting in Europe, Partner Yakult recruiting in Japan) and top-line data is expected in late 2019. Yakult has also initiated its own Phase II study for resminostat in biliary tract cancer in combination with S-1 chemotherapy. Domatinostat is being studied in Phase Ib/II SENSITIZE study in combination with pembrolizumab in melanoma. The first patient has recently been enrolled in the 2nd dose cohort and top-line data is expected in H119. A second Phase II study EMERGE in GI cancer is expected to start in H218. 4SC-208 (downstream Hedgehog signalling pathway inhibitor) is the third asset expected to enter clinical development in 2019.

INDUSTRY OUTLOOK

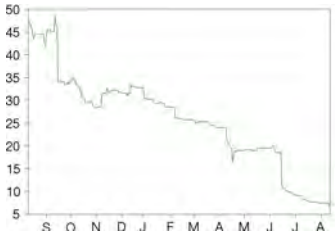
Resminostat could become the first HDAC inhibitor to gain EU approval for CTCL (vs two HDACs approved in the US), but more importantly the maintenance treatment indication would be unique, potentially offering a competitive edge in Europe and the US.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2016	2.1	(10.9)	(10.9)	(54.17)	N/A	N/A
2017	4.2	(9.8)	(10.0)	(40.58)	N/A	N/A
2018e	4.7	(17.5)	(17.6)	(57.39)	N/A	N/A
2019e	3.1	(19.1)	(19.2)	(62.58)	N/A	N/A

Sector: Pharma & healthcare

Price:	6.2p
Market cap:	£13m
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	(24.2)	(67.1)	(86.8)
Relative*	(23.9)	(67.0)	(87.3)

* % 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. FY18 results showed a strong H2 and £22m in revenues that were ahead of our forecasts. The Board have guided for service revenue growth just above FY18's 18% and we are at 19.1% for FY19 and 30.4% for FY20 as the investments in capacity are incorporated. Before then, we anticipate fundraising inflows to address the working capital requirement of £5m in FY19 and £2m in FY20, part of which could be met by a royalty monetisation transaction that will help investors better value the Abzena Inside business.

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)
2017	18.7	(7.4)	(8.3)	(5.82)	N/A	N/A
2018	22.0	(12.5)	(13.5)	(6.04)	N/A	N/A
2019e	26.1	(7.6)	(10.0)	(4.52)	N/A	N/A
2020e	34.1	(3.1)	(5.6)	(2.38)	N/A	N/A

Sector: Pharma & healthcare

Price: SEK6.00
Market cap: SEK138m
Market NASDAQ OMX First North

Share price graph (SEK)

Company description

Acarix, a Swedish company, sells 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 in late 2019. US sales might start from 2022.

Price performance

%	1m	3m	12m
Actual	2.4	(34.8)	(68.4)
Relative*	(1.5)	(35.8)	(70.3)

* % Relative to local index

Analyst

Dr John Savin

Acarix (ACARIX)

INVESTMENT SUMMARY

Acarix's annual report confirms reported 2017 revenues of SEK 638k. Gross profit was SEK 430k, with a gross margin rise to 75% in Q4. We do not expect any major sales upturn in 2018, as the key factor is German government reimbursement – this is not expected before 2019. There is additional sales potential in other European territories. We do not expect a US launch before 2022, but we have assumed a US trial starts in 2019. Mr Lindholm is the interim CEO.

INDUSTRY OUTLOOK

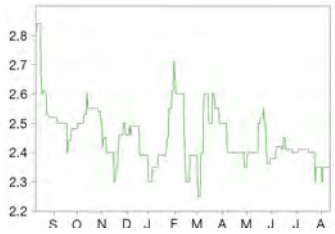
CADScore helps doctors to identify cardiac patients who probably require no further risky invasive clinical testing. The Dan-NICAD II study will enrol 2,000 patients with suspected stable coronary artery disease to add data, evaluate the test in patients aged 30–39 and aid acceptance of CADScor among key opinion leaders. The planned 'Seismo' study with 200 patients aims to explore the use of CADScor for the early diagnosis of heart failure.

Y/E Dec	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (öre)	P/E (x)	P/CF (x)
2016	N/A	(26.8)	(26.8)	(183.01)	N/A	N/A
2017	0.6	(29.2)	(30.7)	(129.31)	N/A	N/A
2018e	1.3	(36.8)	(39.2)	(170.24)	N/A	N/A
2019e	3.8	(55.3)	(57.8)	(250.80)	N/A	N/A

Sector: Pharma & healthcare

Price: NZ$2.35
Market cap: NZ$229m
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	(2.5)	(2.1)	(16.7)
Relative*	(2.3)	(5.6)	(25.3)

* % 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

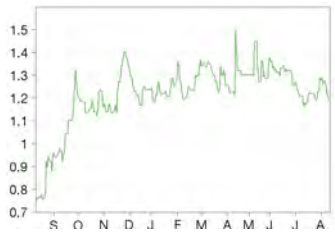
AFT is a multi product company targeting pharmacy prescription, OTC and hospital markets. Data for Maxigesic offers them a competitive advantage in a fragmented industry.

Y/E Mar	Revenue (NZ$m)	EBITDA (NZ$m)	PBT (NZ$m)	EPS (c)	P/E (x)	P/CF (x)
2017	69.2	(15.1)	(18.5)	(19.12)	N/A	N/A
2018	80.1	(10.5)	(12.9)	(13.30)	N/A	N/A
2019e	99.6	1.9	0.0	4.56	51.5	N/A
2020e	120.7	11.7	9.9	10.13	23.2	24.7

Sector: Pharma & healthcare

Price:	NIS1.19
Market cap:	NIS85m
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	1.5	(14.2)	57.8
Relative*	(1.3)	(19.7)	37.1

* % Relative to local index

Analyst

Juan Pedro Serrate

Allium Medical (ALMD)

INVESTMENT SUMMARY

Allium Medical Solutions is a company focused on developing and marketing minimally invasive devices in the cardiovascular, metabolic, genitourinary and gastrointestinal areas. 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 (92% of NIS7.7m in 2017). Allium has achieved revenue CAGR of 20% in 2011-17. The investment case rests on its 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. We estimate that cash, equivalents and short-term deposits of c NIS16.6m at end-H118 provide runway until 2019.

INDUSTRY OUTLOOK

We expect Allium's growth to accelerate in the medium term, resulting in 2018-20e revenue CAGR of 43%. Allium has two devices in development: Allevetix, in a clinical trial for diabetes and obesity; and TruLeaf, a mitral valve replacement device in preclinical studies. Gardia's Wirion device has been approved by the FDA, becoming the only embolic protection system for all atherectomy procedures. Stents have been approved in China. Stents and EndoFast have been approved in Russia.

Y/E Dec	Revenue (NISm)	EBITDA (NISm)	PBT (NISm)	EPS (NIS)	P/E (x)	P/CF (x)
2016	7.4	(20.4)	(22.0)	(0.49)	N/A	N/A
2017	7.7	(20.8)	(21.4)	(0.37)	N/A	N/A
2018e	14.0	(13.2)	(13.7)	(0.19)	N/A	N/A
2019e	21.0	(9.0)	(9.6)	(0.13)	N/A	N/A

Sector: Pharma & healthcare

Price:	51.5p
Market cap:	£73m
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	(7.2)	15.7	10.8
Relative*	(6.8)	16.2	6.6

* % 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 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. 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. The company reported results from its two studies (n=200 each) for triaging women with ovarian masses before surgery. Reported ROC-AUC was high at 95.1% (assay combines the expression levels of 9 different genes and 4 serum markers). Angle has existing collaboration agreements with three multinationals (Qiagen, Philips and Abbott) indicating growing interest in CTCs from large players. We are updating our estimates.

INDUSTRY OUTLOOK

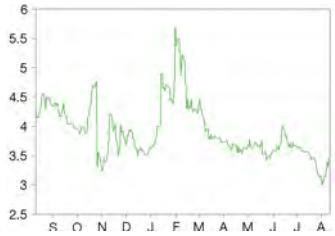
The precision medicine approach is an initiative aiming to improve treatment efficacy by tailoring the treatment to the patient and their disease with liquid biopsy being one of the key enabling tools.

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:	€3.50
Market cap:	€60m
Market	Euronext Brussels

Share price graph (€)



Company description

ASIT biotech is a clinical-stage company focused on developing therapies for allergies. It uses its proprietary ASIT+ technology platform to develop products containing highly purified allergen fragments in an adjuvant-free formulation, selected to be safe while maintaining the capacity to stimulate the immune system.

Price performance

%	1m	3m	12m
Actual	(1.7)	(5.7)	(17.2)
Relative*	(2.1)	(4.0)	(15.4)

* % Relative to local index

Analyst

Andy Smith

ASIT biotech (ASIT)

INVESTMENT SUMMARY

ASIT Biotech's ASIT+ allergy immunotherapy (AIT) platform has generated a Phase III drug for the prevention of grass pollen allergy and earlier-stage programs in house dust mite (hdm-ASIT+) and in peanut allergies. Unlike most other AITs (subcutaneous or sublingual), ASIT's products only require four injections prior to the allergy season. The second Phase III study for gp-ASIT+ starts recruiting at the end of Q418 and results are expected after the pollen season of 2019. We expect ASIT Biotech to self-market its products in Europe and license-out rights in for the US and China. ASIT recently raised money to fully-fund its clinical programs.

INDUSTRY OUTLOOK

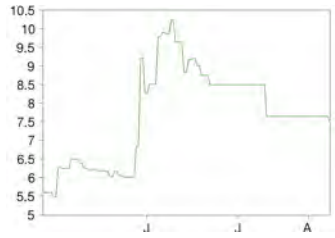
Although grass pollen and house dust mite allergies are not life-threatening in most cases, they result in a significant symptom burden for affected patients. With a safe and effective four-dose regimen, ASIT could expect some usage in the less-severe segment where currently a regimen of many doses does not balance the risk-benefit.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2016	0.0	(12.3)	(12.3)	(110.00)	N/A	N/A
2017	0.0	(12.0)	(12.0)	(93.60)	N/A	N/A
2018e	0.0	(11.9)	(11.8)	(76.17)	N/A	N/A
2019e	0.0	(12.3)	(12.2)	(74.44)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$7.50
Market cap:	US$240m
Market	Taiwan

Share price graph (US$)



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	N/A	N/A	N/A
Relative*	N/A	N/A	N/A

* % Relative to local index

Analyst

Dr Nathaniel Calloway

ASLAN Pharmaceuticals (ASLN)

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's also testing ASLAN003, an inhibitor of dihydroorotate dehydrogenase, in Phase II for acute myeloid leukaemia, and ASLAN004, in Phase I for atopic dermatitis.

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 (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2016	11.5	(7.2)	(7.6)	(7.26)	N/A	N/A
2017	0.0	(37.8)	(38.8)	(31.16)	N/A	N/A
2018e	0.0	(38.3)	(38.9)	(24.76)	N/A	N/A
2019e	0.7	(62.1)	(62.5)	(35.78)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$2.28
Market cap:	US$6m
Market	NASDAQ

Share price graph (US$)

Company description

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

Price performance

%	1m	3m	12m
Actual	(10.9)	(44.7)	(46.7)
Relative*	(12.2)	(46.8)	(54.1)

* % 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 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 recently started Phase II trials for oral and topical endoxifen, and expects to complete enrollment for the topical study by YE18. The firm is also advancing its intraductal microcatheter (IDMC), intended to selectively introduce drugs to breast ducts to improve drug targeting. It started a Phase II trial in 2016 combining its IDMC with established cancer drug fulvestrant. It also started preclinical studies with its IDMC to explore potential use in immunotherapy. Atossa recently raised $13.4m gross ($12.1m net) through a rights offering, resulting in a pro-forma 31 March 2018 net cash position of c $16.9m, which we believe can sustain operations until early 2020.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2016	0.0	(6.9)	(7.3)	(2951.72)	N/A	N/A
2017	0.0	(7.1)	(7.2)	(1000.81)	N/A	N/A
2018e	0.0	(11.4)	(11.4)	(429.43)	N/A	N/A
2019e	0.0	(7.0)	(7.0)	(257.02)	N/A	N/A

Sector: Pharma & healthcare

Price:	CHF68.60
Market cap:	CHF815m
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	2.2	(4.5)	(16.0)
Relative*	(0.8)	(5.0)	(16.7)

* % 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). During H118 Zevtera initiated the US Phase III registration trials in ABSSSI and SAB. Multiple licensing/distribution agreements announced in 2017 for marketed assets Cresemba and Zevtera should drive top-line growth faster than we had expected. Major deals with Pfizer include Cresemba in Europe (ex Nordics), Russia, Turkey, Israel, China and Asia-Pacific. Basilea's oncology pipeline focuses on drugs that target resistance to current cancer therapies. BAL101553 (Phase IIA in glioblastoma and ovarian cancer) and BAL3833 (phase I in solid tumours). Basilea has in-licensed ARQ 087 (derazantinib) from ArQule, a pan FGFR tyrosine kinase inhibitor in Phase II registration study for intrahepatic cholangiocarinoma and Phase I/II development for solid tumours.

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	39.0
2018e	113.6	(27.3)	(35.0)	(324.36)	N/A	N/A
2019e	137.3	(21.5)	(29.4)	(272.82)	N/A	N/A

Sector: Pharma & healthcare

Price:	NIS11.73
Market cap:	NIS53m
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	(2.6)	(5.2)	(20.3)
Relative*	(5.3)	(11.3)	(30.8)

* % Relative to local index

Analyst

Pooya Hemami

Bio-Light Life Sciences (BOLT)

INVESTMENT SUMMARY

BioLight Life Sciences is developing Eye-D VS-101, an extended-dose latanoprost drug implant designed to treat glaucoma (and had 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 signed an agreement in Q417 to be acquired by Chengdu Kanghong Pharma in a four-stage transaction. The first stage was completed in Q118 and, if remaining conditions are met, the gross proceeds to BioLight for its stake should range between $23m and $27.5m (by mid-2021). BioLight reported NIS33.7m in net cash (consolidated) at 31 March 2018, but NIS29.6m of this was held at IOPtima, and the parent firm only held NIS1.6m. BioLight raised NIS11.4m in May 2018 through the issuance of 908,540 shares. We believe these proceeds should allow BioLight to fund its operations until at least H218, at which point we expect it to receive $12m from the second stage of the IOPtima divestiture transaction.

Y/E Dec	Revenue (NISm)	EBITDA (NISm)	PBT (NISm)	EPS (NIS)	P/E (x)	P/CF (x)
2016	2.1	(20.2)	(26.3)	(5.37)	N/A	N/A
2017	1.2	(26.8)	(26.6)	(5.29)	N/A	N/A
2018e	0.9	(24.0)	(26.3)	(5.21)	N/A	N/A
2019e	0.9	(24.4)	(26.3)	(5.56)	N/A	N/A

Sector: Pharma & healthcare

Price:	A$0.47
Market cap:	A$227m
Market	ASX

Share price graph (A$)

Company description

Bionomics is a Australia based pharmaceutical company developing drugs to target ion channels to treat neuropsychiatric diseases and cancer.

Price performance

%	1m	3m	12m
Actual	(10.5)	(19.7)	7.4
Relative*	(10.8)	(21.6)	(2.0)

* % Relative to local index

Analyst

Dr Nathaniel Calloway

Bionomics (BNO)

INVESTMENT SUMMARY

Bionomics is a clinical-stage pharmaceutical company with two small molecule discovery platforms: ionX for ion channel targets and MultiCore chemistry for rapid candidate identification. The company is testing BNC210 in Phase IIb for post-traumatic stress disorder (PTSD) and Phase IIa for agitation. It also had a programme licensed to Merck in Phase I for royalties, and US$506m in upfront and milestone payments.

INDUSTRY OUTLOOK

There are currently limited options for sufferers of PTSD, which does not respond to treatment as well as other anxiety centered disorders. BNC210 hopes to surmount this with its novel anxiolytic mechanism.

Y/E Jun	Revenue (A$m)	EBITDA (A$m)	PBT (A$m)	EPS (c)	P/E (x)	P/CF (x)
2016	8.1	(15.4)	(16.7)	(3.48)	N/A	N/A
2017	18.6	(3.2)	(4.4)	(0.98)	N/A	N/A
2018e	5.0	(18.5)	(19.6)	(3.41)	N/A	N/A
2019e	17.6	(14.6)	(16.1)	(2.84)	N/A	N/A

Sector: Pharma & healthcare

Price:	SEK14.92
Market cap:	SEK758m
Market	OMX

Share price graph (SEK)

Company description

BONESUPPORT is an orthobiologics company that has commercialised three synthetic bone graft substitutes and has several other projects in R&D. The marketed products, CERAMENT BVF, CERAMENT G (gentamicin) and CERAMENT V (vancomycin), are intended to help orthopaedic surgeons manage bone voids and defects after injuries or diseases affecting bones.

Price performance

%	1m	3m	12m
Actual	50.1	14.8	(47.3)
Relative*	44.4	12.9	(50.5)

* % Relative to local index

Analyst

Dr Jonas Peciulis

BONESUPPORT (BONEX)

INVESTMENT SUMMARY

BONESUPPORT's investment case rests on three strategic pillars: effective commercial organisation, products backed by clinical data and R&D innovation. The company is commercialising synthetic bone graft substitutes and invests in R&D to support continued development of innovative products that command premium pricing and differentiate them in a competitive market. Following recent issues with the exclusive, long-standing distributor in the US, BONESUPPORT terminated the agreement and US sales are expected to recover via an independent distributor network and a more hands-on approach to growing sales. The company has recently signed agreements with MTF Biologics and Collagen Matrix so that it can grow its product offering sold through its US platform and plans to drive sales in Trauma. After a successful IPO in June 2017 raising SEK520m, the company is well funded.

INDUSTRY OUTLOOK

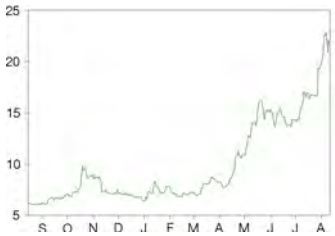
Innovation is one of the key strategic directions for BONESUPPORT in order to differentiate its products from competitors offering commodity-like bone graft substitutes. The company has gathered data and is undertaking clinical trials to support the claims of its marketed products.

Y/E Dec	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (öre)	P/E (x)	P/CF (x)
2016	104.6	(87.4)	(108.4)	(422.06)	N/A	N/A
2017	129.3	(97.9)	(126.7)	(320.78)	N/A	N/A
2018e	113.8	(165.9)	(164.0)	(326.48)	N/A	N/A
2019e	210.9	(129.7)	(128.6)	(253.68)	N/A	N/A

Sector: Pharma & healthcare

Price:	SEK21.50
Market cap:	SEK1423m
Market	NASDAQ OMX First North

Share price graph (SEK)



Company description

Cantargia is a clinical stage biotechnology company based in Sweden, established in 2009 and listed on Nasdaq Stockholm First North in 2015. It is developing two antibodies against IL1RAP, CAN04 and CANxx. CAN04 is being studied in a Phase I/II CANFOUR in solid tumours focusing on NSCLC and pancreatic cancer.

Price performance

%	1m	3m	12m
Actual	26.5	54.7	240.4
Relative*	21.7	52.2	219.9

* % Relative to local index

Analyst

Dr Jonas Peciulis

Cantargia (CANT)

INVESTMENT SUMMARY

Cantargia is developing two antibodies against IL1RAP, CAN04 (nidanilimab) and CANxx. CAN04 is currently being studied in a Phase I/II CANFOUR trial. The first part of the trial (Phase I) will focus on several solid tumours, while the second part (Phase II) will focus on NSCLC and pancreatic cancer. Results from the Phase I part of the trial are expected in mid-2018. Cantargia expects CAN04 to work through a dual mechanism of action: inhibition of IL-1 signaling and antibody-dependent cellular cytotoxicity (ADCC). Recent Novartis data publication from its six-year Phase III cardiovascular outcomes study in heart attack patients with canakinumab provides some validation to Cantargia's plans, as it unexpectedly showed that the drug reduced lung cancer incidence and mortality. Cantargia has recently up-listed to the Nasdaq Stockholm main market from Nasdaq Stockholm First North.

INDUSTRY OUTLOOK

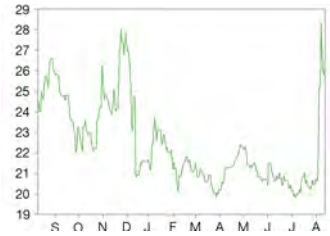
Increasing the understanding of inflammation in malignant process now includes findings that cytokines are not only produced by the immune cells, but also cancer itself could produce certain cytokines and the associated receptors to escape from the immune response. Therefore, cytokines represent potentially promising class of targets in cancer management.

Y/E Dec	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (fd) (öre)	P/E (x)	P/CF (x)
2016	0.0	(47.6)	(47.5)	(271.96)	N/A	N/A
2017	0.0	(60.0)	(60.3)	(186.00)	N/A	N/A
2018e	0.0	(80.9)	(80.2)	(141.79)	N/A	N/A
2019e	0.0	(93.8)	(93.5)	(141.19)	N/A	N/A

Sector: Pharma & healthcare

Price:	€26.50
Market cap:	€239m
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	31.2	24.7	8.3
Relative*	31.3	27.4	1.9

* % Relative to local index

Analyst

Maxim Jacobs

Carmat (ALCAR)

INVESTMENT SUMMARY

Carmat is currently enrolling its 20-patient study for its artificial heart in France, Kazakhstan, the Czech Republic and Denmark. To date, ten patients have been implanted, with a 100% survival rate at one-month. Most notably, Carmat announced the first successful donor heart transplant of a TAH patient who was initially too sick to receive a donor heart. It also opened its new and more automated production facility, in Bois-d'Arcy.

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$20.35
Market cap:	US$345m
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	7.1	10.6	138.7
Relative*	5.6	6.3	105.4

* % 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 and recently received INDs from the CFDA for both indications. Data is expected around end-H118. Additionally, it is adapting its knee osteoarthritis (KOA) treatment ReJoin as an allogeneic product, AlloJoin, which recently completed Phase I testing.

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)
2016	0.6	(15.7)	(18.1)	(134.30)	N/A	N/A
2017	0.3	(19.2)	(20.1)	(140.41)	N/A	N/A
2018e	0.0	(19.9)	(23.1)	(129.61)	N/A	N/A
2019e	0.0	(24.1)	(27.8)	(148.06)	N/A	N/A

Sector: Pharma & healthcare

Price:	€25.82
Market cap:	€297m
Market	Euronext Brussels

Share price graph (€)

Company description

Celyad is developing an innovative Natural Killer Receptor CAR T-cvell therapy (CYAD-01). This focusses on AML and metastatic coloretal cancer. A comprehensive set of clinical studies is beeing initiated.

Price performance

%	1m	3m	12m
Actual	(1.6)	(9.0)	(25.7)
Relative*	(2.0)	(7.5)	(24.0)

* % Relative to local index

Analyst

Dr John Savin

Celyad (CYAD)

INVESTMENT SUMMARY

The FDA's sign off on Celyad's first clinical trial design for its allogeneic NRK CAR T-cell therapy (CYAD-101) is an important milestone. The study mirrors the current colorectal SHRINK trial a combination of autologous CYAD-01 therapy with FOLFOX chemotherapy. This gives Celyad the lead in a mass-market solid cancer where allogeneic therapy is likely to be essential. Interim data from studies are promised by Celyad in late 2018, probably at ASH. There are now several studies running or starting. The May placing gave Celyad a cash boost of €46.1m gross adding to the €34m on 31 December 2017.

INDUSTRY OUTLOOK

The CAR T-cell therapeutic area remains a hot area for investment with increasing interest in the next stage of allogeneic products, an area where Celyad holds a key patent with a Novartis deal. Celyad remains in a key position in both AML and mCRC with initial moves into combination solid tumour therapies.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2016	8.5	(21.2)	(20.0)	(209.0)	N/A	N/A
2017	3.5	(22.3)	(26.8)	(279.0)	N/A	N/A
2018e	0.0	(26.5)	(27.3)	(243.0)	N/A	N/A
2019e	0.0	(27.8)	(28.5)	(238.0)	N/A	N/A

Sector: Pharma & healthcare

Price:	NIS3.20
Market cap:	NIS517m
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	(2.6)	15.9	(3.9)
Relative*	(5.8)	8.5	(18.0)

* % Relative to local index

Analyst

Maxim Jacobs

Clal Biotechnology (CBI)

INVESTMENT SUMMARY

Clal Biotechnology (CBI) is a 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, Anchano (fomerly 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 three investments, namely Gamida Cell, Anchano and Cadent. Neon recently went public in a $100m NASDAQ IPO.

INDUSTRY OUTLOOK

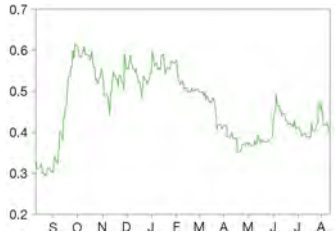
CBI is invested in a variety of life science companies, including a wide and diverse range of technologies, indications and stages of development, all of which have high potential.

Y/E Dec	Revenue (NISm)	EBITDA (NISm)	PBT (NISm)	EPS (NIS)	P/E (x)	P/CF (x)
2016	30.5	(434.8)	(454.1)	(289.34)	N/A	N/A
2017	73.6	(103.3)	(54.2)	(15.02)	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:	NIS0.40
Market cap:	NIS70m
Market	NASDAQ, 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	1.0	8.4	22.6
Relative*	(1.9)	1.4	6.5

* % Relative to local index

Analyst

Maxim Jacobs

CollPlant Holdings (CLGN)

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

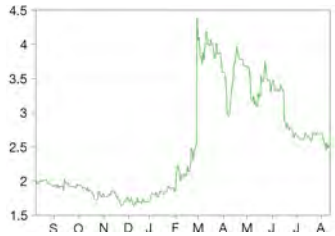
Orthobiologics and advanced wound care are substantial growing markets and are estimated to be worth $6.7bn (according to GlobalData) and $8.5bn (according to Smith & Nephew) respectively.

Y/E Dec	Revenue (NISm)	EBITDA (NISm)	PBT (NISm)	EPS (NIS)	P/E (x)	P/CF (x)
2016	0.3	(27.0)	(27.9)	(27.72)	N/A	N/A
2017	1.7	(19.7)	(20.9)	(15.68)	N/A	N/A
2018e	3.3	(20.3)	(21.3)	(11.86)	N/A	N/A
2019e	7.3	(18.1)	(19.6)	(10.40)	N/A	N/A

Sector: Pharma & healthcare

Price:	€2.50
Market cap:	€39m
Market	Euronext Growth

Share price graph (€)



Company description

Deinove is a biotech company that discovers, develops and manufactures compounds of industrial interest stemming from rare bacteria and intended for the health, nutrition and beauty markets.

Price performance

%	1m	3m	12m
Actual	(4.9)	(21.1)	25.0
Relative*	(4.8)	(19.4)	17.7

* % Relative to local index

Analyst

Dr Jonas Peciulis

Deinove (ALDEI)

INVESTMENT SUMMARY

FY18 is shaping up to be a pivotal year for Deinove. The company has already launched two products in its cosmetic division and has signed partnership agreements with Redx Pharma and Naicons to develop new antibiotics. Most significantly, Deinove announced the acquisition of Morphochem's clinical-stage antibiotic compound, MCB3837 (Biovertis), and recently raised €8.5m (via the issue of 3.15m shares at a price of €2.7 per share, resulting in dilution of 20.2%) to enable it to launch a Phase II clinical trial for the compound and finance its other activities. The funds raised are said to be sufficient to finance its operations over the next 12 months. As a result of contributing €2m to the capital increase, TVM Capital now holds 7.4% of Deinove. Our forecasts are under review.

INDUSTRY OUTLOOK

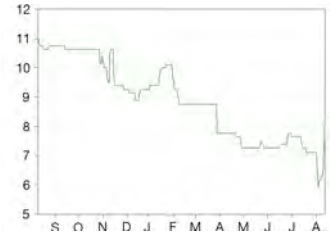
Environmentalism will underpin growth in green chemistry and the growing antimicrobial resistance to current antibiotics will demand the discovery of new antibiotic structures.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2016	0.8	(6.4)	(7.7)	(72.6)	N/A	N/A
2017	0.2	(8.5)	(9.7)	(67.7)	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:	8.2p
Market cap:	£22m
Market	AIM

Share price graph (p)



Company description

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

Price performance

%	1m	3m	12m
Actual	7.8	13.8	(25.0)
Relative*	8.3	14.3	(27.9)

* % 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 two new chemical entities (NCEs) in immunoncology that are the subject of business development efforts and 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.

INDUSTRY OUTLOOK

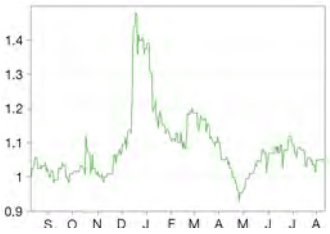
Network-driven approaches could revolutionise drug discovery and shorten the path to market by minimising technical risks and drug development costs. ETX is differentiated from its competitors through its expertise in curating, processing and analysing data in the context of mechanistic modelling of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

Y/E Jan	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2017	0.0	(14.2)	(14.1)	(4.1)	N/A	N/A
2018	0.0	(6.7)	(6.7)	(2.0)	N/A	N/A
2019e	0.0	(5.9)	(6.0)	(1.7)	N/A	N/A
2020e	0.0	(4.0)	(4.0)	(1.2)	N/A	N/A

Sector: Pharma & healthcare

Price:	NIS1.05
Market cap:	NIS244m
Market	TASE

Share price graph (NIS)



Company description

Elbit Medical Technologies is an Israeli biomedical and healthcare technology group. Its portfolio of two companies is focused on medical devices and therapeutics: InSightec, which develops and markets the ExAblate platform for non-invasive thermal tissue ablation, and Gamida Cell, which is developing a universal bone marrow transplant.

Price performance

%	1m	3m	12m
Actual	(3.3)	4.3	5.2
Relative*	(6.1)	(2.5)	(8.6)

* % Relative to local index

Analyst

Maxim Jacobs

Elbit Medical Technologies (EMTC)

INVESTMENT SUMMARY

Elbit Medical Technologies is an Israel-based healthcare investment company. It is currently invested in two private companies. The company holds a ~22% (~19% fully diluted) stake in InSightec, a commercial-stage medical device company. InSightec's ExAblate uses MRI and high-intensity focused ultrasound to perform precise and incisionless thermal tissue ablation. ExAblate has achieved FDA and CE approval for three distinct indications, with revenues of $32.1m for FY17. The company is also invested in Gamida Cell (~18% owned, ~13% fully diluted), which is developing NiCord, a product derived from umbilical cord blood (UCB) stem cells, for the treatment of high-risk haematological malignancies. Enrolment is underway for a Phase III study with enrolment expected to be complete in H219.

INDUSTRY OUTLOOK

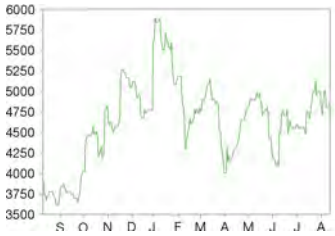
Elbit Medical Technologies is invested in the healthcare sector through its holdings in two companies that are developing medical device and therapeutic technologies.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2016	0.0	(0.6)	(3.7)	0.0	N/A	N/A
2017	0.0	(0.7)	(5.2)	0.0	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:	4900.0p
Market cap:	£3260m
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	8.7	(1.6)	26.0
Relative*	9.1	(1.2)	21.2

* % Relative to local index

Analyst

Dr Susie Jana

Hutchison China MediTech (HCM)

INVESTMENT SUMMARY

HCM has built a substantial pipeline of potential first-in-class or best-in-class tyrosine kinase inhibitor (TKI) drugs, some of which are in development with strategic partners. By year end, we anticipate the China FDA to approve fruquintinib (3L CRC). The molecular epidemiology study data on savolitinib in PRCC could support a US NDA submission (possible breakthrough therapy designation). The recent expansion of its US and international operations (US office in New Jersey and the appointment of US CMO and head of international operations) will enable HCM to execute its international R&D and commercialisation strategies for its wholly owned late-stage oncology assets, which we expect will reach value inflection points over the next few years.

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, we expect HCM to become a major China and international oncology company.

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	329.7	N/A
2017	241.2	(50.7)	(53.5)	(43.3)	N/A	N/A
2018e	163.6	(63.7)	(68.0)	(62.1)	N/A	N/A
2019e	180.1	(83.9)	(90.1)	(93.5)	N/A	N/A

Sector: Pharma & healthcare

Price:	€0.47
Market cap:	€22m
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	(1.3)	2.4	(18.2)
Relative*	(1.2)	4.6	(23.1)

* % 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. Cash position at end December 2017 was €7m.

INDUSTRY OUTLOOK

An international Phase II study in AML has completed recruitment. Interim futility data are expected potentially in December 2018 and full data in mid-2019. Final data from a Phase II in CML was presented: 20% of patients who had completed one year in the study achieved a deep molecular response (DMR) which may allow patients to discontinue treatment (functional cure). Finally, the collaboration with Servier on inhibitors of ubiquitin-specific proteases for oncology is ongoing; up to €12m in potential payments is associated with this programme until registration.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2016	2.6	(3.5)	(4.0)	(11.2)	N/A	N/A
2017	1.9	(6.8)	(7.3)	(17.7)	N/A	N/A
2018e	3.6	(3.5)	(4.1)	(8.7)	N/A	N/A
2019e	2.2	(3.3)	(4.0)	(7.6)	N/A	N/A

Sector: Pharma & healthcare

Price: SEK7.10
Market cap: SEK362m
Market OMX

Share price graph (SEK)

Company description

Immunicum is a clinical-stage immunoncology company based in Gothenburg, Sweden. The company is developing an allogeneic dendritic cell immune primer for use in combination with tyrosine kinase inhibitors and checkpoint inhibitors in multiple solid tumour indications.

Price performance

%	1m	3m	12m
Actual	12.2	2.9	(61.7)
Relative*	7.9	1.2	(64.1)

* % Relative to local index

Analyst

Andy Smith

Immunicum (IMMU)

INVESTMENT SUMMARY

Immunicum is a Sweden-listed, clinical-stage immunoncology (IO) company that develops allogeneic dendritic cell (DC) technologies. Its first clinical product, ilixadencel, is in Phase I and II combination studies in several solid tumour indications. Two studies are expected to report in 2019; the first is the Phase II MERECA data in renal cell carcinoma (in combination with sunitinib). Interim data from the Phase I/II multi-indication study where ilixadencel is being tested in combination with a checkpoint inhibitor are also expected in H219.

INDUSTRY OUTLOOK

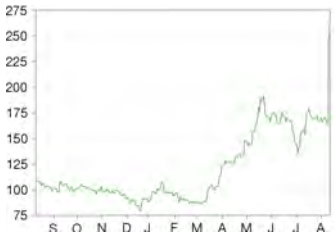
IO is a frenetic pharmaceutical development area with many clinical combination studies being conducted by big pharmaceutical companies. Investors may not need to wait until 2019 for price-moving events depending on the announcements on the start of their combination studies.

Y/E Dec	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (öre)	P/E (x)	P/CF (x)
2016	N/A	N/A	N/A	N/A	N/A	N/A
2017	0.0	(80.7)	(80.3)	(309.0)	N/A	N/A
2018e	0.0	(80.7)	(91.2)	(190.6)	N/A	N/A
2019e	0.0	(82.9)	(78.3)	(153.7)	N/A	N/A

Sector: Pharma & healthcare

Price: SEK265.00
Market cap: SEK4589m
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	66.7	69.2	143.1
Relative*	60.3	66.5	128.5

* % Relative to local index

Analyst

Juan Pedro Serrate

Immunovia (IMMUNOV)

INVESTMENT SUMMARY

Immunovia is developing IMMray PanCan-d, a blood-based test for the early detection of pancreatic cancer. Immunovia is running the PANFAM-1 prospective trial in high-risk patients and expects to generate initial self-pay sales in Q418. Immunovia is conducting a retrospective study with 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 and lung cancer. The company's shares are listed on Nasdaq Stockholm. Cash and equivalents at end-March 2018 were SEK167.8m.

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)
2016	24.5	(14.4)	(14.7)	(98.0)	N/A	N/A
2017	24.2	(44.3)	(45.2)	(267.0)	N/A	N/A
2018e	27.2	(60.1)	(61.8)	(365.0)	N/A	N/A
2019e	38.1	(70.4)	(73.4)	(434.0)	N/A	N/A

Sector: Pharma & healthcare

Price:	A$0.04
Market cap:	A$86m
Market	ASX

Share price graph (A$)

Company description

Immutep has a pipeline of four LAG-3 related product candidates: eftilagimod alpha (IMP321) for cancer chemo-immunotherapy and immunotherapy-immunotherapy combinations, two partnered products IMP731 (GSK) and IMP701 (Novartis), as well as IMP761 for autoimmune diseases.

Price performance

%	1m	3m	12m
Actual	0.0	46.9	71.4
Relative*	(0.4)	43.5	56.5

* % Relative to local index

Analyst

Dr Dennis Hulme

Immutep (IMM)

INVESTMENT SUMMARY

Immutep has three promising candidates in clinical trials and one preclinical asset, all based on Lymphocyte activation gene-3, LAG-3 (one partnered with GSK and a second partnered with Novartis). Lead in-house LAG-3 product, eftilagimod alpha (IMP321), is being developed in metastatic breast cancer combined with chemo (126 of 226 patients recruited in randomised Phase IIb, initial PFS data expected 2019) and in melanoma in combination with Keytruda (33% response rate in three dose-finding cohorts, 61% response rate from start of Keytruda monotherapy screening; additional six-patient cohort is being treated at the highest dose starting on day 1 of Keytruda treatment). Novartis and GSK are progressing clinical trials of partnered LAG-3 programmes: GSK has announced ulcerative colitis as lead indication; Novartis has commenced two Phase II studies this year with LAG525 and a third is expected to start this month. Immutep will collaborate with Merck (MSD) in a study of IMP321 plus Keytruda in lung and head and neck cancers in H218.

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	(13.2)	(12.9)	(0.6)	N/A	N/A
2019e	10.9	(7.1)	(6.4)	(0.2)	N/A	N/A

Sector: Pharma & healthcare

Price:	C$0.78
Market cap:	C$133m
Market	TSX

Share price graph (C$)

Company description

InMed is a biopharmaceutical company focused on manufacturing and developing cannabinoids. Its platform may be able to produce cannabinoids for less cost and with improved purity compared to currently used methods. The company is developing a pipeline, including INM-750 for epidermolysis bullosa, a serious, debilitating orphan indication.

Price performance

%	1m	3m	12m
Actual	(10.3)	(27.1)	160.0
Relative*	(9.1)	(28.7)	140.1

* % Relative to local index

Analyst

Maxim Jacobs

InMed Pharmaceuticals (IN)

INVESTMENT SUMMARY

InMed is a Canada-based biopharmaceutical company focused on maximizing the therapeutic potential of cannabinoids. Through its biosynthesis platform, the company believes it has distinct advantages over both naturally sourced and chemically synthesized cannabinoids, which could give it access to both the medical and retail markets, although the process is still in development. The company is also developing a proprietary pipeline, including INM-750 for epidermolysis bullosa (EB), a serious orphan indication, and expects to file an IND for INM-750 in H219.

INDUSTRY OUTLOOK

The market for cannabinoids, whether FDA-approved, medical or recreational is growing at a fantastic rate. Legal cannabis sales in the US alone were around $7.5 billion in 2017 and we expect it to grow to $28 billion by 2023.

Y/E Jun	Revenue (C$m)	EBITDA (C$m)	PBT (C$m)	EPS (c)	P/E (x)	P/CF (x)
2016	0.0	(1.9)	(1.8)	(2.99)	N/A	N/A
2017	0.0	(3.3)	(3.2)	(3.27)	N/A	N/A
2018e	0.0	(5.5)	(5.3)	(3.72)	N/A	N/A
2019e	0.0	(7.6)	(7.5)	(4.80)	N/A	N/A

Sector: Pharma & healthcare

Price:	NIS14.74
Market cap:	NIS490m
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	(11.2)	(18.9)	(21.8)
Relative*	(13.7)	(24.2)	(32.0)

* % 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 mid-2019. 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

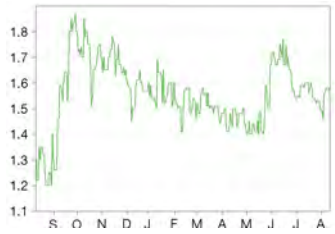
Parkinson's disease is a neurodegenerative disease in which the dopamine secreting neurons in the brain are lost, leading to severe motor defects and cognitive impairment. Approximately one million people in the US have Parkinson's.

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2016	0.0	(14.5)	(13.4)	(116.72)	N/A	N/A
2017	0.0	(30.1)	(29.1)	(164.74)	N/A	N/A
2018e	0.0	(31.2)	(29.5)	(93.22)	N/A	N/A
2019e	0.0	(25.0)	(22.8)	(67.94)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$1.53
Market cap:	US$9m
Market	OTC

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	(3.2)	8.5	17.7
Relative*	(4.5)	4.3	1.3

* % 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 of the first patient in their third cohort (a total of 9 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)
2016	7.2	(4.5)	(4.9)	(33.82)	N/A	N/A
2017	7.5	(4.6)	(4.9)	(145.96)	N/A	N/A
2018e	8.8	(5.8)	(6.7)	(98.15)	N/A	N/A
2019e	9.5	(6.8)	(8.5)	(126.66)	N/A	N/A

Sector: Pharma & healthcare

Price:	A$0.47
Market cap:	A$23m
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	1.1	(33.6)	5.6
Relative*	0.7	(35.1)	(3.7)

* % 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 commenced recruitment in a US-based Phase II study of GDC-0084 in March; 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 third generation benzopyran drug Cantrixil. The Phase I trial in ovarian cancer has tentatively identified the MTD and is currently recruiting additional patients to better understand the safety profile, before recruiting a 12-patient expansion cohort. While the primary aim is to assess safety and tolerability, we note that 3/5 patients achieved stable disease after 2 cycles and one achieved a partial response in combination with chemo. Kazia has divested its discovery-stage anti-tropomyosin program to TroBio Therapeutics, 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 third generation benzopyrans and a PI3K inhibitor.

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	13.2	(2.4)	(4.3)	(8.71)	N/A	N/A
2019e	13.6	(5.6)	(7.2)	(14.42)	N/A	N/A

Sector: Pharma & healthcare

Price:	€9.11
Market cap:	€183m
Market	Euronext Amsterdam

Share price graph (€)

Company description

Kiadis Pharma is a Dutch biotech company developing a modified donor T-cell infusion (ATIR) given after a stem-cell transplant to treat acute leukaemia.

Price performance

%	1m	3m	12m
Actual	(12.1)	(8.4)	53.1
Relative*	(12.4)	(8.5)	42.4

* % Relative to local index

Analyst

Dr John Savin

Kiadis Pharma (KDS)

INVESTMENT SUMMARY

Kiadis is developing ATIR: an allogeneic donor T-cell preparation that uses its Theralux technology to deplete alloreactive T-cells that can cause Graft vs Host disease (GvHD). The ATIR T-cell preparation is given 28-32 days after a T-cell depleted haploidentical bone marrow transplant, a protocol sometimes used to treat acute leukaemia. ATIR is in a European Phase III study against the clinically favoured 'Baltimore' protocol. A conditional marketing application has been filed with the EMA. An EMA opinion is possible in Q418. Cash at 31 March 2018 was €47.7m after a fund-raising of €23.4m gross in March 2018. It has repayable debt of €15m. A new loan agreement for €20m has been made. Our forecasts are under review.

INDUSTRY OUTLOOK

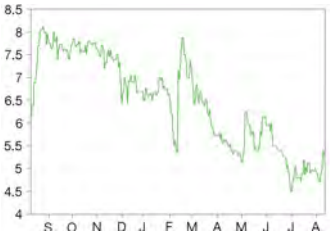
Zalmoxis, a similar product using a suicide gene switch safety feature, already has a CMA in Europe. There were 2,000 haplo-identical transplants in Europe in 2016. Bellicum's BPX-501 paediatric product should report data by early 2019.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2016	0.0	(10.8)	(12.5)	(1105.0)	N/A	N/A
2017	0.0	(14.7)	(17.2)	(1060.0)	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:	€5.06
Market cap:	€133m
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	5.2	(15.2)	(17.6)
Relative*	6.8	(11.2)	(20.3)

* % Relative to local index

Analyst

Dr Susie Jana

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, MagForce is expanding from Germany into other countries, firstly Poland (Public Clinical Hospital No. 4 in Lublin) and then Italy is anticipated (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 US clinical trial in prostate cancer has enrolled the first patient. Proceeds from the August 2018 Magforce USA capital increase ($9m gross) will be used in part to finance the US prostate cancer trial.

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)
2016	0.5	(6.6)	(7.2)	(27.8)	N/A	N/A
2017	0.7	(6.7)	(7.5)	(28.3)	N/A	N/A
2018e	2.9	(7.6)	(8.8)	(33.4)	N/A	N/A
2019e	7.1	(6.6)	(7.9)	(30.2)	N/A	N/A

Sector: Pharma & healthcare

Price:	€13.20
Market cap:	€324m
Market	FRA

Share price graph (€)

Company description

Medigene is a German biotech company with a core business in cancer immunotherapy. A T cell receptor (TCR) candidate has recently entered the clinic and a dendritic cell (DC) vaccine Phase I/II clinical study is ongoing in Phase II.

Price performance

%	1m	3m	12m
Actual	3.6	(6.3)	47.5
Relative*	5.2	(1.7)	42.7

* % 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). A Phase II study is ongoing with DC vaccines for acute myeloid leukaemia. For TCRs, Medigene has initiated its first company-led trial with MDG1011 in patients with PRAME expressing AML, MDS or MM. Its partnership with bluebird bio to utilise its TCR technology platform was recently expanded (US$8m one time payment, US$1m achieved milestone payment, US$250 milestones per target, tiered royalties) to now include six therapeutic candidates. Medigene is well-funded to execute its clinical programme, as of 30th June cash was €80.8m.

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)
2016	9.7	(12.4)	(13.4)	(66.20)	N/A	N/A
2017	11.4	(12.1)	(12.4)	(60.42)	N/A	N/A
2018e	10.4	(18.2)	(17.8)	(76.38)	N/A	N/A
2019e	11.0	(18.0)	(17.2)	(70.41)	N/A	N/A

Sector: Pharma & healthcare

Price:	A$1.74
Market cap:	A$840m
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	11.5	18.0	(2.4)
Relative*	11.1	15.2	(10.9)

* % 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, with a 69% overall response rate vs 45% for historical controls (p=0.0003). The 100 day data showed high survival rates in responsive patients; 180 day safety data is in Q3. This is expected to lead to a fast track application to the FDA. The NIH funded Phase IIb in end-stage CHF patients with an LVAD should have full data by Q4 CY18. Cash on 31 Mar was US$59.5m. In March, Mesoblast entered a US$75m non-dilutive credit facility and has drawn-down $35m. A June deal gained $30m plus US$10m equity based on expected GvHD sales. A collaborative alliance with Tasly on developing MPC for CHF in China has given a US$20m upfront and US$20m for an equity subscription.

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:	€4.80
Market cap:	€33m
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	(4.1)	(46.4)	(76.5)
Relative*	(1.4)	(46.7)	(76.7)

* % 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 has 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). Top-line 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 €6.2m as of 30 June 2018. Mologen has signed a variety of financial agreements and a partnership with Oncologie, which should enable sufficient funding until the year end.

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)
2016	0.1	(20.6)	(20.8)	(0.84)	N/A	N/A
2017	0.0	(18.7)	(19.3)	(0.56)	N/A	N/A
2018e	3.0	(14.2)	(14.6)	(0.39)	N/A	N/A
2019e	0.0	(16.7)	(17.1)	(0.45)	N/A	N/A

Sector: Pcare & household prd

Price:	35.6p
Market cap:	£28m
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	(17.2)	(17.2)	(13.7)
Relative*	(16.9)	(16.9)	(17.0)

* % 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)
2016	0.5	(12.6)	(12.3)	(20.6)	N/A	N/A
2017	0.4	(10.8)	(9.5)	(13.6)	N/A	N/A
2018e	1.9	(11.5)	(12.4)	(13.5)	N/A	N/A
2019e	4.1	(8.3)	(9.7)	(10.8)	N/A	N/A

Sector: Pharma & healthcare

Price:	SEK5.05
Market cap:	SEK462m
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	4.1	109.5	14.7
Relative*	0.2	106.2	7.8

* % Relative to local index

Analyst

Dr Jonas Peciulis

NeuroVive Pharmaceutical (NVP)

INVESTMENT SUMMARY

NeuroVive Pharmaceutical is a mitochondrial medicine specialist. NeuroVive's core portfolio targets orphan indications: traumatic brain injury with NeuroSTAT, various genetic mitochondrial diseases with KL1333 and NVP015, and mitochondrial myopathy with NVP025. A Phase IIb proof-of-concept study with NeuroSTAT is expected to start in H218/H119. The second most advanced product KL1333, in-licensed from Yungjin Pharm in May 2017, demonstrated positive results in the Phase I trial in South Korea and NeuroVive is planning to start a Phase Ib study in H218. Recent highlight is an out-licensing of a subset of compounds from NVP015 program for localized treatment of LHON to BridgeBio Pharma for a deal value of around $60m. Other products for out-licensing include NV556 and NVP022 for NASH and NVP024 for hepatocellular carcinoma.

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	(83.5)	(83.6)	(132.64)	N/A	N/A
2019e	0.6	(132.0)	(132.2)	(170.66)	N/A	N/A

Sector: Pharma & healthcare

Price: CHF11.22
Market cap: CHF200m
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	(15.4)	(7.7)	(40.2)
Relative*	(17.8)	(8.2)	(40.7)

* % 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 (enrollment expected to complete in H218). 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

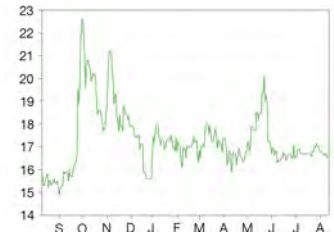
Parkinson's disease is a growing market. Xadago could have a unique position, with once-a-day dosing and a clean safety profile.

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	5.6	(24.7)	(24.5)	(137.90)	N/A	N/A
2019e	10.7	(28.3)	(28.2)	(158.27)	N/A	N/A

Sector: Pharma & healthcare

Price: SEK16.58
Market cap: SEK821m
Market NASDAQ OMX First North

Share price graph (SEK)



Company description

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

Price performance

%	1m	3m	12m
Actual	(0.7)	(6.4)	5.6
Relative*	(4.5)	(7.9)	(0.8)

* % Relative to local index

Analyst

Dr Daniel Wilkinson

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 86.7m (31st March 2018) in addition to the recent gross SEK110m raise suggests a cash runway into 2019.

INDUSTRY OUTLOOK

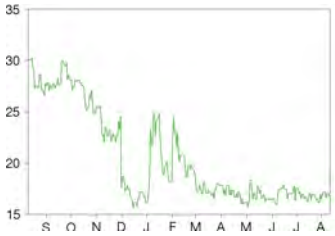
Significant promise is seen in DNA-encoded libraries due to the potential to rapidly develop small molecule drugs to 'tough-to-drug' targets. We continue to see major investment in the space from an array of companies, notably GSK, Roche and Novartis.

Y/E Jun	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (öre)	P/E (x)	P/CF (x)
2016	21.3	N/A	(151.9)	(4.0)	N/A	N/A
2017	120.3	N/A	(9.4)	(0.6)	N/A	N/A
2018e	104.9	N/A	(32.1)	(0.5)	N/A	N/A
2019e	229.2	N/A	87.6	1.3	1275.4	8.9

Sector: Pharma & healthcare

Price:	SEK17.00
Market cap:	SEK233m
Market	OMX

Share price graph (SEK)



Company description

Oncology Venture is a biopharmaceutical company with a patent-protected mRNA-based drug response predictor platform that identifies patients highly likely to respond to treatment. The company is entering Phase II with six in-licensed drugs.

Price performance

%	1m	3m	12m
Actual	3.3	0.0	(43.6)
Relative*	6.4	6.7	(38.6)

* % Relative to local index

Analyst

Dr Nathaniel Calloway

Oncology Venture (OV.SS)

INVESTMENT SUMMARY

Oncology Venture holds the worldwide drug development rights to the drug response predictor (DRP), a microarray technology that examines the expression of a panel of genes to identify potential responders to different cancer therapies. The company's goal is to then identify and in-license drugs that are active within populations that the DRP can identify. To date, the company has in-licensed six drugs and is in the early stages of validating the platform in the clinic.

INDUSTRY OUTLOOK

Oncology Venture and the DRP system have the potential to identify the value in drug assets that have otherwise been discontinued by identifying patient populations where these drugs are active. This allows the company to in-license these assets at low cost, which the company may then out-license after clinical validation.

Y/E Dec	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (öre)	P/E (x)	P/CF (x)
2016	1.3	(43.4)	(40.5)	(332.94)	N/A	N/A
2017	2.1	(81.0)	(64.9)	(527.74)	N/A	N/A
2018e	1.7	(127.4)	(121.8)	(746.66)	N/A	N/A
2019e	1.0	(250.2)	(238.5)	(1392.43)	N/A	N/A

Sector: Pharma & healthcare

Price:	€1.20
Market cap:	€61m
Market	Euronext Paris

Share price graph (€)

Company description

Onxeo is developing innovative oncology drugs based on DNA-targeting and epigenetics. The lead compound, AsiDNA, is a first-in-class DNA break repair inhibitor based on a unique decoy mechanism and currently evaluated in a phase I trial (DRIIV-1) for systemic administration in solid tumors.

Price performance

%	1m	3m	12m
Actual	2.1	(8.8)	(70.0)
Relative*	2.3	(6.9)	(71.8)

* % Relative to local index

Analyst

Dr Jonas Peciulis

Onxeo (ONXEO)

INVESTMENT SUMMARY

Onxeo's lead asset AsiDNA, a first-in-class DNA break repair inhibitor, is currently being tested in Phase I DRIIV-1 trial at the Institut Curie in Paris in patients with advanced solid tumours. AsiDNA has already generated supportive data from a Phase I trial in melanoma using intratumoural injection, but is now being tested via systemic administration. Onxeo is conducting a broad preclinical programme that explores AsiDNA in various settings and combinations with other drugs. AsiDNA is part of the proprietary, novel platON platform, a major R&D expansion announced in October 2017, and is based on decoy oligonucleotides. The platON platform belongs to the so-called DNA damage response (DDR) technology, a domain to which recently marketed PARP inhibitors also belong. Recently, Onxeo received $7.5m after the sale of rights to royalties from Beleodaq and gained access to €5.4m equity financing line extending cash reach to Q320 past the AsiDNA Phase I results.

INDUSTRY OUTLOOK

The approval of the first PARP inhibitor (olaparib) has kick started the interest of both the scientific community and large pharma in the DNA Damage Response (DDR) field. Few biotechs are already positioned in this emerging field which may be the successor to immuno-oncology.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (fd) (c)	P/E (x)	P/CF (x)
2016	4.4	(21.3)	(20.4)	(44.64)	N/A	N/A
2017	9.5	(17.4)	(19.7)	(23.58)	N/A	N/A
2018e	2.6	(12.1)	(12.2)	(24.20)	N/A	N/A
2019e	3.9	(11.1)	(11.2)	(22.26)	N/A	N/A

Sector: Pharma & healthcare

Price: SEK47.30
Market cap: SEK1635m
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	46.9	32.1	30.7
Relative*	41.3	30.0	22.8

* % Relative to local index

Analyst

Andy Smith

Orexo (ORX)

INVESTMENT SUMMARY

Orexo generated positive EBITDA and operating cash flow generation in FY16 and FY17, and have guided for this to continue in FY18. US commercial and public formulary coverage is dynamic but exclusive contracts with Humana, among other insurers, are having a positive impact on US Zubsolv volumes and sales. IP infringement litigation remains as an overhang. An Actavis generic launch before September 2019 is precluded; multiple cases are ongoing or, in the case of the '330 patent, under final appeal expected Q318. The EMA has approved Zubsolv for Europe, and partner Mundipharma launched in Q218 with the SEK30.6m milestone now in our model. EU Zubsolv royalties are expected to start in H218.

INDUSTRY OUTLOOK

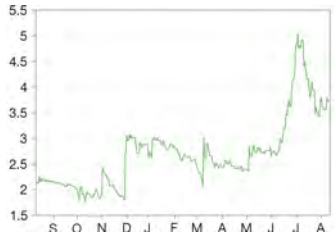
Opioid dependence diagnosis/treatment rates are low due to social stigma, limited access to therapy in parts of the US and affordability. Competition includes Suboxone film (Indivior), Bunavail (BDSI) and six generic bup/nal tablets.

Y/E Dec	Revenue (SEKm)	EBITDA (SEKm)	PBT (SEKm)	EPS (öre)	P/E (x)	P/CF (x)
2016	705.9	51.7	35.6	84.00	56.3	N/A
2017	643.7	57.4	29.7	67.00	70.6	N/A
2018e	800.5	116.7	109.9	291.39	16.2	N/A
2019e	918.1	201.4	160.8	450.83	10.5	N/A

Sector: Pharma & healthcare

Price: €3.70
Market cap: €126m
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	(16.1)	35.0	72.0
Relative*	(13.6)	44.1	87.2

* % 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. Oryzon's lead CNS product ORY-2001, a dual LSD1/MAOB inhibitor, targets Alzheimer's disease (Phase IIa initiated), multiple sclerosis (Phase IIa initiated) and other neurodegenerative indications. Results from both trials are expected in 2019. The lead oncology product ORY-1001 is a specific LSD1 inhibitor with positive data from the Phase I/IIa in acute leukaemia announced in December 2016. Oryzon has submitted CTAs and plans to initiate two Phase IIa trials in AML and SCLC in coming months. ORY-3001 is a newer asset in preclinical development targeting certain orphan indications. The cash position was €38.1m at end Q118.

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:	900.0p
Market cap:	£592m
Market	LSE

Share price graph (p)

Company description

Oxford BioMedica's (OXB) LentiVector technology underpins the company's strategy. OXB generates significant revenue from partners that utilise its technology, notably Novartis, Bioverativ, Orchard Therapeutics and Immune Design. OXB is in partnering discussions about internally developed assets.

Price performance

%	1m	3m	12m
Actual	(3.3)	28.6	93.6
Relative*	(2.9)	29.1	86.2

* % Relative to local index

Analyst

Dr Daniel Wilkinson

Oxford BioMedica (OXB)

INVESTMENT SUMMARY

In 2018, Oxford BioMedica (OXB) aims to maintain its position as a global leader in lentiviral development and manufacturing. On the back of a £20.5m gross raise, OXB is expanding its manufacturing capabilities to match increasing demand. The additional capacity is expected to come online in late 2019 and will enable OXB to continue the rapid growth of its platform (partnership) revenues. In the near term, revenue will continue to be driven by the Novartis partnership as Kymriah's commercial roll out continues (royalties and manufacturing fees). OXB continues to look for spin-out/out-licensing of its priority internal pipeline assets. Notably, OXB-102 in Parkinson's disease has now been out-licensed to Axovant ($30m upfront, $757.7m milestones, 7% to 10% royalties). The company recently announced a partnership with Bioverativ (in field of haemophilia) potentially worth in excess of $100m. As of 31 December, OXB has gross £14.3m in cash (not including $30m Axovant upfront or £20.5m capital raise).

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 has demonstrated promise in many indications.

Y/E Dec	Revenue (£m)	EBITDA (£m)	PBT (£m)	EPS (p)	P/E (x)	P/CF (x)
2016	27.8	(7.6)	(20.0)	(29.35)	N/A	N/A
2017	37.6	(1.3)	(11.5)	(14.14)	N/A	N/A
2018e	72.5	14.0	4.5	9.88	91.1	62.7
2019e	82.9	19.0	7.7	14.81	60.8	36.0

Sector: Pharma & healthcare

Price:	NZ$0.31
Market cap:	NZ$142m
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	10.9	(7.6)	(34.8)
Relative*	11.1	(10.9)	(41.6)

* % 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 using its Cxbladder technology for detecting and monitoring bladder cancer are sold in the US, New Zealand and Australia. The company recently announced that the number of tests processed increased by 29% in FY18 and is guiding for 60% growth in FY19. The company is negotiating agreements with the Centers for Medicare and Medicaid as well as private payers to provide for improved reimbursement, which would be a major driver in the future.

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)
2017	4.4	(22.3)	(22.4)	(5.9)	N/A	N/A
2018	4.8	(19.4)	(19.5)	(4.4)	N/A	N/A
2019e	7.8	(17.9)	(17.7)	(3.7)	N/A	N/A
2020e	12.7	(14.1)	(14.2)	(2.8)	N/A	N/A

Sector: Pharma & healthcare

Price:	€2.55
Market cap:	€163m
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	9.4	9.0	(8.3)
Relative*	11.1	14.2	(11.3)

* % Relative to local index

Analyst

Dr Dennis Hulme

Paion (PA8)

INVESTMENT SUMMARY

Paion reported positive results from Phase III trials of remimazolam for procedural sedation in bronchoscopy and colonoscopy and has completed 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. In December Paion outlicenced Japanese rights to Mundipharma, which will bear the cost of market authorisation (filing for general anaesthesia expected in H218). Paion has initiated a Phase III study in GA in Europe, with top-line data expected in 2019. Cash of €23.3m at 30 June and anticipated milestone revenue is sufficient to file for procedural sedation in the US (filing by partner Cosmo expected Q418/Q119) and report top-line data from the European Phase III.

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)
2016	4.3	(25.1)	(25.1)	(37.8)	N/A	N/A
2017	5.8	(15.9)	(15.9)	(20.5)	N/A	N/A
2018e	3.1	(16.7)	(16.6)	(21.8)	N/A	N/A
2019e	10.5	(6.4)	(6.4)	(6.4)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$2.39
Market cap:	US$348m
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	(5.2)	(16.1)	(7.7)
Relative*	(6.5)	(19.4)	(20.6)

* % 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)
2016	244.3	193.1	175.5	77.72	3.1	3.8
2017	320.1	218.8	200.3	81.33	2.9	9.1
2018e	176.1	53.7	47.8	37.10	6.4	N/A
2019e	145.5	38.5	41.1	23.40	10.2	N/A

Sector: Pharma & healthcare

Price: €1.58
Market cap: €352m
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	1.3	(4.4)	(58.2)
Relative*	4.3	2.0	(54.5)

* % 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 ASCO. In a total of 61 patients, the objective response rate was 39.3% with a median duration of response of 6.2 months and median overall survival of 12 months. The 600-patient Phase III ATLANTIS study in relapsed SCLC patients has recently completed recruitment. Data from the ATLANTIS trial is expected around the end of 2019.

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	646.5
2018e	168.8	17.7	5.8	2.6	60.8	N/A
2019e	177.3	19.5	7.2	2.7	58.5	29.9

Sector: Pharma & healthcare

Price: NOK44.80
Market cap: NOK967m
Market AIM Italia, 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	41.3	57.2	86.7
Relative*	41.9	54.4	55.5

* % 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 and launched the product in May. Sales may have significant upside if the product successfully expands into the US bladder cancer surveillance market, which has 1.2m-1.4m procedures per year, compared to its current market of 325,000 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	27.3	50.2
2017	150.9	(33.1)	(41.6)	(161.0)	N/A	N/A
2018e	201.5	(1.8)	(14.7)	(40.0)	N/A	N/A
2019e	288.8	73.8	61.0	204.0	22.0	24.2

Sector: Pharma & healthcare

Price:	€1.69
Market cap:	€35m
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	(10.9)	(18.4)	(67.0)
Relative*	(10.8)	(16.6)	(68.9)

* % Relative to local index

Analyst

Pooya Hemami

Pixium Vision (PIX)

INVESTMENT SUMMARY

Pixium Vision is developing the Prima wireless photovoltaic sub-retinal implant, which transforms images into electrical signals to elicit a form of central visual perception in patients with severe retinal disease. It announced in July 2018 the fifth and final human Prima implantation, as per the protocol of its European feasibility study, designed to assess Prima in patients with advanced atrophic Dry Age-related macular degeneration (ARMD). The first four implantations were followed by successful activations (resulting in reported light perception), and device activation in the fifth patient is expected in coming weeks. Pixium plans to start implantations as part of a five-patient US Prima feasibility study in Q318.

INDUSTRY OUTLOOK

In May 2018, Pixium raised €10.6m through the issuance of 5.68m new shares. Pixium held €16.7m in gross cash at 30 June 2018, which we estimate will fund operations through Q419. 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	(11.4)	(13.2)	(99.55)	N/A	N/A
2018e	2.2	(6.4)	(7.1)	(40.45)	N/A	N/A
2019e	2.5	(14.4)	(17.1)	(83.34)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$1.25
Market cap:	US$139m
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	(2.0)	(9.1)	15.1
Relative*	(3.3)	(12.6)	(0.9)

* % 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 and recently reported data from its 172-patient Phase II study of intermittent claudication patients. Patients that received two injections of 300m cells showed a statistically significant improvement in maximal walking distance when compared to baseline (p=0.0008). Also, the company reported that the revascularization risk was reduced in this arm by 49% at week 65.

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. 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	0.1	(34.9)	(19.7)	(18.58)	N/A	N/A
2019e	0.0	(48.2)	(43.9)	(38.38)	N/A	N/A

Probiodrug (PBD)

Sector: Pharma & healthcare

Price: €3.26
Market cap: €27m
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	(16.4)	(36.8)	(78.2)
Relative*	(16.8)	(36.9)	(79.7)

* % Relative to local index

Analyst

Dr Jonas Peciulis

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. Probiodrug has presented detailed Phase IIb development with the next trial planned to start by end-2018. Preclinical data also showed that PQ912 could be effective in Huntington's disease in an animal model. Backup candidates are in pre-clinical stage: PBD-C06 (monoclonal antibody that targets pGlu-Abeta), and PQ1565 (small molecule QC enzyme inhibitor).

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)
2016	0.0	(13.7)	(13.8)	(181.30)	N/A	N/A
2017	0.0	(9.9)	(9.0)	(96.67)	N/A	N/A
2018e	0.0	(7.8)	(7.8)	(94.91)	N/A	N/A
2019e	0.0	(7.9)	(7.9)	(96.64)	N/A	N/A

Quantum Genomics (ALQGC)

Sector: Pharma & healthcare

Price: €1.74
Market cap: €20m
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	(7.8)	(26.1)	(47.3)
Relative*	(7.7)	(24.5)	(50.4)

* % Relative to local index

Analyst

Maxim Jacobs

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. Patient dosing in the 250-patient NEW-HOPE study is expected to complete by the end of 2018 with data in Q119. The company is also launching a Phase IIb in heart failure in Q418 with results expected in H220.

INDUSTRY OUTLOOK

The angiotensin pathway is one of the primary methods of modulating blood pressure and is the target of many anti-hypertensive drugs, including ACE's and ARB's. However, there is a parallel pathway in the brain responsible for the secretion of vasopressin and heart rate that is unaddressed by current drugs 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)
2016	0.0	(6.2)	(6.2)	(59.79)	N/A	N/A
2017	0.0	(10.3)	(10.3)	(92.81)	N/A	N/A
2018e	0.0	(10.9)	(11.4)	(73.20)	N/A	N/A
2019e	0.0	(14.8)	(16.2)	(99.97)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$6.00
Market cap:	US$153m
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 BEKINDA for gastroenteritis and IBS-D.

Price performance

%	1m	3m	12m
Actual	(33.2)	7.3	(23.6)
Relative*	(34.1)	3.1	(34.3)

* % 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 Q418); RHB-104 for Crohn's disease (positive top-line results from first Phase III announced July 2018), BEKINDA for both gastroenteritis (positive results from first Phase III announced June 2017) and IBS-D (positive final Phase II results announced January 2018); and RHB-204 for pulmonary non-tuberculous mycobacteria infections (pivotal Phase III trial to start Q119). RedHill promotes four GI products in the US (Donnatal, EnteraGam, Esomeprazole Strontium DR Capsules 49.3mg and Mytesi). Q118 sales were $2.4m, up 22% q-o-q. RedHill recently uplisted to Nasdaq Global Market and on 14 August closed an offering of American depository shares, raising $25m gross.

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)
2016	0.1	(30.5)	(29.4)	(22.85)	N/A	N/A
2017	4.0	(51.9)	(45.5)	(25.99)	N/A	N/A
2018e	16.6	(39.2)	(39.3)	(18.41)	N/A	N/A
2019e	30.2	(35.7)	(35.8)	(16.74)	N/A	N/A

Sector: Pharma & healthcare

Price:	A$0.20
Market cap:	A$41m
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	21.9	62.5	69.6
Relative*	21.4	58.6	54.8

* % 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 collaboration with AGC for exclusive manufacture of Progenza cells for Japan. Regeneus and AGC have formed a 50:50 JV, which is seeking to sub-license partners to develop and commercialise Progenza in Japan in a number of indications; the first Progenza clinical development licence is close to finalisation. Japanese legislation offers an accelerated path to market for regenerative medicines. Progenza therapy reduced osteoarthritis knee pain in Phase I. Regeneus was granted a US patent in July covering the composition and use of Progenza. Its autologous cancer vaccine RGSH4K was safe and showed encouraging signs of immune stimulation and antitumour activity in a Phase I study. 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	12.7	11.6
2018e	7.8	2.2	2.0	0.93	21.5	11.6
2019e	1.1	(4.3)	(4.5)	(2.17)	N/A	N/A

Sector: Pharma & healthcare

Price:	94.0p
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	16.1	56.7	(54.2)
Relative*	16.5	57.3	(55.9)

* % Relative to local index

Analyst

Andy Smith

ReNeuron Group (RENE)

INVESTMENT SUMMARY

ReNeuron is focused on three cell therapy-based programs. This includes the CTX neural stem cell program which demonstrated positive response rates in key measures were sustained after extended follow-up. ReNeuron will be moving forward with a Phase IIb in chronic stroke disability the US in FY18 with data expected around YE19. ReNeuron also has the hRPC (human retinal progenitor cells) program for retinitis pigmentosa (currently in Phase I/II) and which is the subject of a recently-signed exclusivity deal. It will also be starting a Phase IIa trial in cone-rod dystrophy.

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)
2017	0.9	(19.8)	(18.2)	(0.49)	N/A	N/A
2018	0.9	(20.2)	(21.0)	(55.66)	N/A	N/A
2019e	3.9	(25.7)	(25.6)	(71.21)	N/A	N/A
2020e	1.0	(30.3)	(30.4)	(84.40)	N/A	N/A

Sector: Pharma & healthcare

Price:	€16.20
Market cap:	€810m
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	(1.5)	(6.1)	3.2
Relative*	1.4	0.2	12.3

* % Relative to local index

Analyst

Dr Susie Jana

ROVI Laboratorios Farmaceuticos (ROVI)

INVESTMENT SUMMARY

ROVI, a profitable, speciality healthcare company, markets ~40 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 its proprietary ISM technology, notably with Risperidone ISM or DORIA, a long-acting injectable for schizophrenia, which is expected to read out data in Q219 from its Phase III PRISMA trial.

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	58.11	27.9	34.5
2017	275.6	30.5	20.3	39.99	40.5	27.9
2018e	293.6	26.4	16.4	31.43	51.5	17.6
2019e	314.9	37.5	27.0	51.63	31.4	45.0

Sector: Pharma & healthcare

Price: 56.00PLN
Market cap: PLN894m
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	0.0	(3.1)	7.7
Relative*	(3.1)	(0.7)	14.2

* % Relative to local index

Analyst

Dr Jonas Peciulis

Selvita (SLV)

INVESTMENT SUMMARY

Selvita is an R&D and drug discovery services company. Sales continue to grow at an impressive rate in the services business (up 53% in Q118). In R&D, 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)
2016	66.7	8.3	4.6	63.82	87.7	N/A
2017	105.9	18.5	10.2	50.76	110.3	75.3
2018e	101.3	(0.4)	14.3	91.04	61.5	N/A
2019e	116.8	1.9	(4.5)	(26.23)	N/A	N/A

Sector: Pharma & healthcare

Price: US$2.05
Market cap: US$152m
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, a Chk1 inhibitor, as a monotherapy and in combination with low dose gemcitabine.

Price performance

%	1m	3m	12m
Actual	(31.0)	(11.4)	34.0
Relative*	(31.9)	(14.9)	15.3

* % 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. SRA737 is in Phase I/II clinical trials, both as a monotherapy and in combination with low dose gemcitabine. There is a planned Phase Ib/II trial of SRA737 in combination with the PARPi niraparib in Q418. Sierra is also in preclinical development with SRA141, a Cdc7 inhibitor with a different DNA damage response mechanism.

INDUSTRY OUTLOOK

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

Y/E Dec	Revenue (US$m)	EBITDA (US$m)	PBT (US$m)	EPS (c)	P/E (x)	P/CF (x)
2016	0.0	(41.6)	(41.4)	(136.9)	N/A	N/A
2017	0.0	(36.5)	(36.0)	(72.3)	N/A	N/A
2018e	0.0	(46.3)	(45.9)	(65.2)	N/A	N/A
2019e	0.0	(50.9)	(50.5)	(68.2)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$2.34
Market cap:	US$85m
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	(2.9)	(2.5)	1.3
Relative*	(4.3)	(6.3)	(12.8)

* % Relative to local index

Analyst

Maxim Jacobs

Sunesis Pharmaceuticals (SNSS)

INVESTMENT SUMMARY

Sunesis is a pharmaceutical company developing small molecule oncology drugs. Its lead programme 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 programme is entering a dose escalation Phase Ib/II trial. It has also developed TAK-580 with partner Takeda, and the preclinical PDK1 inhibitor SNS-510.

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	0.2	(32.5)	(35.2)	(97.83)	N/A	N/A
2019e	0.0	(33.3)	(38.4)	(102.22)	N/A	N/A

Sector: Pharma & healthcare

Price:	¥121.00
Market cap:	¥8089m
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	(11.0)	(38.9)	(46.5)
Relative*	(11.2)	(36.9)	(49.7)

* % Relative to local index

Analyst

Dr Dennis Hulme

SymBio Pharmaceuticals (4582)

INVESTMENT SUMMARY

SymBio is a speciality pharma focused on Asia-Pacific markets, and has in-licensed two orphan blood cancer products. Treakisym i.v. was approved for r/r low grade NHL/MCL in 2010 and in 2016 received approvals in CLL and first-line low grade NHL/MCL; these new approvals saw in-market Treakisym sales increase by 22% in H1 2018, following 61% growth in 2017 (NHI price basis). In August 2017, 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 for injection that will provide Treakisym with patent protection that extends to 2031. A Phase I trial of oral Treakisym commenced in January. Rigosertib i.v. 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 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.

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)
2016	2368.0	(2101.0)	(2317.0)	(59.0)	N/A	313.2
2017	3444.0	(3917.0)	(3977.0)	(79.8)	N/A	492.6
2018e	4203.0	(3004.0)	(3030.0)	(54.2)	N/A	164.7
2019e	4325.0	(3591.0)	(3636.0)	(62.9)	N/A	399.9

Sector: Pharma & healthcare

Price:	NOK11.10
Market cap:	NOK584m
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	4.3	(29.8)	(43.7)
Relative*	4.7	(31.1)	(53.1)

* % 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 immune activator approaches. 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. ONCOS-102 is a genetically engineered adenovirus being tested in advanced melanoma, mesothelioma, peritoneal malignancies and prostate cancer. One of the key catalysts this year is the Phase I melanoma trial with interim data due in H218. Targovax has also been developing two mutant RAS-specific neo-antigen vaccines from its TG platform for colorectal and pancreatic cancers. It recently announced a strategic decision to move away from developing TG01 for resected pancreatic cancer based on new data presented at ASCO, which suggested an almost two-year improvement in overall survival with FOLFIRINOX compared to gemcitabine.

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)
2016	0.0	(119.2)	(122.7)	(354.65)	N/A	N/A
2017	0.0	(119.6)	(122.3)	(258.06)	N/A	N/A
2018e	0.0	(149.3)	(147.5)	(280.09)	N/A	N/A
2019e	0.0	(170.0)	(170.3)	(322.73)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$3.72
Market cap:	US$4m
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	1.6	(7.2)	(29.8)
Relative*	0.2	(10.8)	(39.6)

* % Relative to local index

Analyst

Maxim Jacobs

Therapix Biosciences (TRPX)

INVESTMENT SUMMARY

Therapix is investigating the potential of new formulations of cannabinoids to address underserved diseases of the brain. Therapix recently announced the results of its Phase IIa study of THX-110 for the treatment of Tourette syndrome (TS). The study showed a statistically significant (p=0.002) reduction in tic severity of 21%. The company has also initiated a Phase IIa for obstructive sleep apnea (OSA) and is beginning a Phase IIa for low back pain. In July, the company announced that it had signed a term sheet with CURE Pharmaceutical in which CURE would acquire the non-pain assets of Therapix in exchange for stock. Once the deal closes, Therapix will become a significant shareholder in CURE.

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:	€3.08
Market cap:	€192m
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	(3.9)	9.4	(11.2)
Relative*	(3.8)	11.8	(16.5)

* % Relative to local index

Analyst

Dr Daniel Wilkinson

Transgene (TNG)

INVESTMENT SUMMARY

Transgene is focused on the development of its cancer immunotherapy products in combination with immune checkpoint inhibitors (ICIs) and infectious disease programmes. The company is running 11 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. Transgene recently announced a strategic agreement with Tasly Biopharmaceuticals for full Greater China rights to T601 and T101 (Transgene received $48m in Tasly shares). Gross cash at 31 March 2017 was €35.6m.

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)
2016	10.3	(20.4)	(23.1)	(42.9)	N/A	N/A
2017	8.1	(26.4)	(35.0)	(52.0)	N/A	N/A
2018e	7.2	(28.4)	(36.8)	(50.6)	N/A	N/A
2019e	7.9	(31.1)	(34.0)	(54.8)	N/A	N/A

Sector: Pharma & healthcare

Price:	€2.44
Market cap:	€57m
Market	Euronext Paris

Share price graph (€)

Company description

TxCell is developing regulatory T-cell therapies against autoimmune and inflammatory disorders. It uses a novel CAR Treg technology platform. In H1 2019, TxCell plans to file for approval to start o transplant clinical study.

Price performance

%	1m	3m	12m
Actual	153.9	112.2	40.2
Relative*	154.2	116.7	32.0

* % Relative to local index

Analyst

Dr John Savin

TxCell (TXCL)

INVESTMENT SUMMARY

TxCell is in the process of being acquired by the leading US biotech company Sangamo for €2.58/share. Sangamo intends to evaluate the potential of CAR-Treg therapies to prevent graft rejection in solid organ transplant and for the treatment of autoimmune diseases like Crohn's disease and multiple sclerosis. The proposed acquisition of TxCell could accelerate CAR-Treg into the clinic. In 2019, Sangamo expects to submit a clinical trial authorisation application in Europe for the first CAR-Treg product candidate for solid organ transplant, and to initiate a Phase I/II clinical trial later in 2019. Sangamo intends to use its zinc finger nuclease (ZFN) gene editing technology to develop next-generation autologous and allogeneic CAR-Treg cell therapies for use in treating autoimmune diseases.

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.

Y/E Dec	Revenue (€m)	EBITDA (€m)	PBT (€m)	EPS (c)	P/E (x)	P/CF (x)
2016	0.0	(11.9)	(12.7)	(97.5)	N/A	N/A
2017	0.0	(9.3)	(9.7)	(46.3)	N/A	N/A
2018e	0.0	(11.8)	(11.9)	(53.0)	N/A	N/A
2019e	0.0	(11.9)	(12.0)	(53.7)	N/A	N/A

Sector: Pharma & healthcare

Price:	US$1.69
Market cap:	US$51m
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	(19.9)	(24.6)	(40.9)
Relative*	(21.0)	(27.5)	(49.1)

* % Relative to local index

Analyst

Dr Jonas Peciulis

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 front-line CRC screening. For Europe, the company plans to market a triage screening test followed by a front-line screening test. Readouts from 4,300 and 12,000+ sample studies are expected in H218 and Q119 respectively to support a CE Mark. Volition recently secured a $9m private placement, as well as $8.4m (gross) through a registered public offering of common shares and $700k from the Walloon Regional Government. Volition also recently entered into a partnership with Active Motif, who will sell research kits based on the same Nu.Q™ assays which Volition hope will help to validate the assays and explore new indications.

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	(16.9)	(17.0)	(54.33)	N/A	N/A
2019e	1.4	(17.2)	(17.3)	(53.40)	N/A	N/A

Company coverage

Company	Note	Date published
4SC	Update; Update	28/03/2018; 03/05/2018
Abzena	Update; Update	21/12/2017; 19/06/2018
Acarix	Update; Update	08/05/2018; 30/05/2018
AFT Pharmaceuticals	Update; Update	28/03/2018; 30/05/2018
Allium Medical	Update; Outlook	26/04/2018; 17/07/2018
Angle	Flash; Flash	16/06/2017; 05/07/2017
ASIT biotech	Initiation; Update	29/05/2018; 16/07/2018
ASLAN Pharmaceuticals	Update; Update	07/06/2018; 09/07/2018
Atossa Genetics	Update; Update	26/04/2018; 15/06/2018
Basilea Pharmaceutica	Update; Outlook	08/03/3018; 16/07/2018
Bio-Light Life Sciences	Update; Update	24/04/2018; 09/07/2018
Bionomics	Update; Update	29/05/2018; 18/07/2018
BONESUPPORT	Initiation; Update	21/06/2018; 03/08/2018
Cantargia	Initiation	07/06/2018
Carmat	Outlook; Update	31/07/2017; 21/12/2017
Cellular Biomedicine Group	Initiation; Update	02/10/2017; 04/04/2018
Celyad	Update; Update	21/06/2018; 02/08/2018
Clal Biotechnology Industries	Update; Update	10/04/2018; 06/06/2018
Collplant Holdings	Update; Update	28/03/2018; 30/05/2018
e-Therapeutics	Update; Update	05/01/2018; 23/04/2018
Elbit Medical Technologies	Initiation	28/06/2018
Hutchison China Meditech	Outlook; ADR Outlook	31/05/2018; 01/06/2018
Hybrigenics	Outlook; Update	31/01/2018; 24/05/2018
Immunicum	Initiation	07/06/2018
Immunovia	Update; Outlook	07/12/2017; 22/03/2018
Immutep	Update; ADR Update	29/03/2018; 29/03/2018
InMed Pharmaceuticals	Initiation	07/06/2018
Intec Pharma	Update; Update	21/05/2018; 23/07/2018
International Stem Cell	Outlook; Update	14/05/2018; 06/06/2018
Kazia Therapeutics	ADR Outlook; Outlook	11/05/2018; 13/05/2018
Kiadis Pharma	Update; Update	08/12/2016; 06/01/2017
MagForce	Update; Update	18/05/2018; 04/07/2018
Medigene	Update; Update	17/05/2018; 07/08/2018
Mesoblast	Update; Update	07/06/2017; 07/11/2017
Mologen	Update; Update	10/11/2017; 29/05/2018
NetScientific	Update; Update	12/01/2018; 18/04/2018
NeuroVive Pharmaceutical	Update; Update	05/03/2018; 04/06/2018
Newron Pharmaceuticals	Outlook; Update	13/10/2017; 04/04/2018
Nuevolution	Update; Outlook	24/11/2017; 15/03/2018
Oncology Venture	Update; Update	11/06/2018; 02/07/2018
Onxeo	Outlook; Update	29/11/2017; 27/04/2018
Orexo	Update; Update	19/06/2018; 13/07/2018
Oryzon Genomics	Update; Outlook	22/05/2018; 18/07/2018
Oxford BioMedica	Outlook; Update	10/05/2018; 08/06/2018
Pacific Edge	Outlook; Update	09/01/2018; 04/06/2018
Paion	Outlook; Update	14/05/2018; 13/08/2018

PDL BioPharma	Update; Update	22/05/2018; 16/08/2018
PharmaMar	Update; Update	23/01/2018; 14/03/2018
Photocure	Update; Update	04/06/2018; 16/08/2018
Pixium Vision	Outlook; Update	08/03/2018; 09/08/2018
Pluristem Therapeutics	Update; Update	28/02/2018; 29/05/2018
Probiodrug	Update; Update	18/09/2017; 13/04/2018
Quantum Genomics	Update; Outlook	28/06/2018; 13/07/2018
Redhill Biopharma	Update; Update	24/05/2018; 08/08/2018
Regeneus	Update; Outlook	07/09/2017; 29/04/2018
ReNeuron Group	Update; Flash	13/07/2018; 20/07/2018
ROVI Laboratorios Farmaceuticos	Flash; Update	10/05/2018; 30/07/2018
Selvita	Update; Update	16/04/2018; 29/06/2018
Sierra Oncology	Initiation; Update	18/09/2017; 16/04/2018
Sunesis Pharmaceuticals	Update; Update	13/03/2018; 18/05/2018
SymBio Pharmaceuticals	Outlook; ADR Outlook	06/04/2018; 09/04/2018
Targovax	Update; Update	16/03/2018; 13/06/2018
Therapix Biosciences	Update; Update	18/08/2017; 17/11/2017
Transgene	Update; Outlook	23/03/2018; 16/07/2018
TxCell	Outlook; Update	22/02/2018; 12/06/2018
VolitionRx	Update; Update	13/03/2018; 18/07/2018

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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