

Date: 9 March 2015

US pharma deals but don't forget the rest!

While Abbvie and Pharmacyclics work out their \$21bn nuptial party arrangements, there has also been some positive news over here on the UK biotech scene. British biotech company Heptares, has been bought by Japan's Sosei in a deal worth around £250m. Which if you had not just read the \$21bn number would seem like a result. This for just two COPD products, but then it has been 'just' hard slog since the 1990s to get to this place. Astra Zeneca signed a three year deal with Orca Pharmaceuticals for its Auto-immune program to the tune of \$122m which has taken considerably less time, and overall there are definitely signs of life across the sector. So much so that Messrs Woodford and Mellon have also announced plans to invest in a significant way.

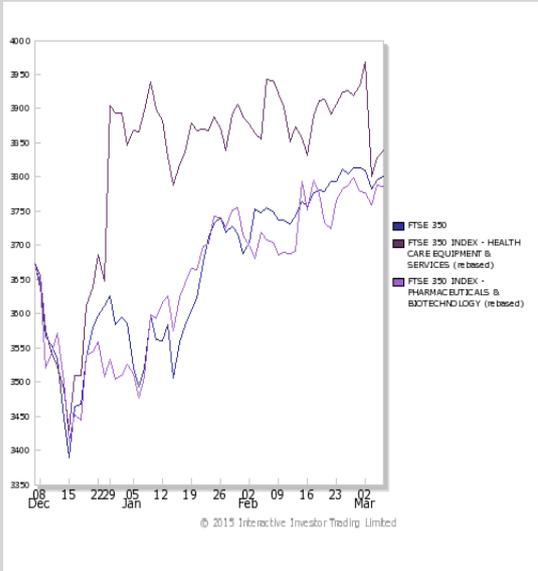
Neil Woodford has announced the \$300m Woodford Patient Capital Trust. The plan is to invest in a new wave of small biotech, and given that he has waived his management fees in favour of 15% of the performance (over a 10% High Water Mark) the implication is that he expects things to kick off and is not just filling a gap in his stable of products. Jim Mellon's Mann-Bioinvest are also in fundraising mode looking to raise up to \$150m with a similar objective of investing in biopharma companies.

But the valuation discrepancies are everywhere. Most Rest of the World (RoW), Japanese, European and Canadian biotechs have a bias towards or are entirely focused towards the US markets and licenced by the FDA too. The final products are not defined by the geography of the founding biotech company, though the 'life chances' of those companies, the funding and valuations that support the funding, seems to be. As the apocryphal commentator notes at every European conference, 'European investors never forget and US investors never remember.' And there would seem to be some truth in this, though to some degree it becomes self-fulfilling. It is much easier to be bullish about a company when you know that it can afford to fail a few times and get there in the end, compared to investing in a company where any slip up will be catastrophic. But there is probably something more systemic than that, it is likely that you could probably find hundreds, if not thousands, of US biotech companies that would testify to how hard it is to get the funding they want.

The fact is that there is quite simply more money available for high risk investments in the US than anywhere else. Furthermore, right now - after multiple years of the biggest QE exercise of all time - the effect is even more exaggerated. But can this last? The QE effect is waning in the US as it waxes in Europe. Eventually Momentum must slow and Mean Regression will become the new investment theme, allowing for some stock-picking and market neutral strategies to work. Could it be that there are some excellent European and Canadian biotech looking very cheap versus their US counterparts? Whether you think US is overvalued or Rest of World (RoW) undervalued having a good look at the RoW biotechs seems to make sense.

By William Lynne

For analyst certification and other important disclosures, refer to the Disclosure Section



FTSE ALL SHARE	CY2014	CY2015
PE	21.79	16.25
P/Book	1.90	1.86
EV/Sales	1.25	1.45
EV/EBITDA	8.51	8.96

FTSE 350 Pharma and Biotechnology	CY2014	CY2015
PE	26.54	17.61
P/Book	6.75	7.02
EV/Sales	3.86	4.03
EV/EBITDA	11.07	12.39

FTSE 350 Health Care Equipment and Services	CY2014	CY2015
PE	28.92	20.27
P/Book	4.21	3.30
EV/Sales	2.95	2.77
EV/EBITDA	13.47	12.79

Source: Bloomberg 5 March 2015

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Economic Review

The UK economy has climbed its way out of recession and into growth, with figures released by the Office for National Statistics (ONS) showing that the economy grew by 0.5 percent in the final quarter of 2014, and 2.6 percent for 2014 as a whole. Despite the growth in the UK economy, there are some restraining factors still present.

Deflationary pressures within the economy combined with a 6 year unbroken record low interest rate of 0.5 percent may generate deflation in the UK. The fall in oil prices and cheaper energy costs have allowed households to increase their disposable incomes, but figures showed there is still little wage growth and many homes are still struggling, therefore there has been very little inflationary pressure.

There is a major economic pandemic spreading across Europe, the UK Consumer Price Index (CPI) dropped to the lowest level since records began (0.3 percent in January 2015). There are widespread fears that deflation infecting the majority of countries within Europe could soon spread to the UK, with many economists suggesting that figures to be released will show that the CPI has fallen into negative values for the first time since the index started.

The problem is that once a country has entered a deflationary period, it can be very difficult to get rid of, especially when the interest rates are as low as they can go. In 2009, the Bank of England was able to slash the interest rates by circa five percent to boost spending within the economy, consequently current interest rates are at 0.5 percent. But with deflation on the horizon for the UK, the question is how interest rates can be cut, to boost spending, when they are almost zero. These widespread price falls are primarily driven by the slump in oil & gas prices, food prices amid a supermarket price war and a strong GBP making imports cheaper.

However, the fall in the oil price has not only allowed for deflationary pressures, but it has allowed businesses to see huge cuts in overall costs, thus allowing firms to invest in growth.

According to a recent PwC report, the fall in oil price and stable economic growth has allowed a rise in business confidence and companies' hiring intentions. The report suggested that a prolonged period of low oil prices could boost GDP by around 1 percent; the significant decrease in the oil price has increased UK economic activity as the cost of production fell massively, this is true especially for those companies dependent on oil inputs (agriculture, air transport or refined petroleum manufacturing), which will then boost investment and employment. Research conducted by accountancy and services group, BDO, suggested that companies were increasing the number of people they are hiring for work, with 4.2 percent of small firms saying that they had hired new staff in the last quarter.

We are soon going to be in the midst of the general election, which will unquestionably create uncertainty within the business sector as a result of a potentially unclear political outcome, and whether that outcome will affect the UK's relationship with the European Union or whether the chosen party has favourable policies concerning economics and business. With no insight into the outcome, investors are obviously reluctant to place their confidence in a market governed by laws and incentives which could be different once the elections have concluded.

Small Companies

There are many small and mid-cap companies enjoying the benefits of economic recovery, with an extra boost from the fall in the oil price and the euro. Research carried out by BDO showed that the low inflation rate was also helping businesses' bottom lines, with the lowest-ever proportion of businesses (44 percent) reporting a year-on-year increase in costs. Moreover, The Federation of Small Businesses commented that small business confidence remains robust and firmly in positive territory, according to the first quarter results of the FSB's Small Business Index. Lower business costs and current economic conditions are giving firms the confidence to take on new staff, reward staff with pay increases, and successfully access finance from their banks to invest in and build their business. John Allan, Chairman of the Federation of Small Businesses, proposed that the next government should build on the current positive picture, help boost growth and rebalance the economy.

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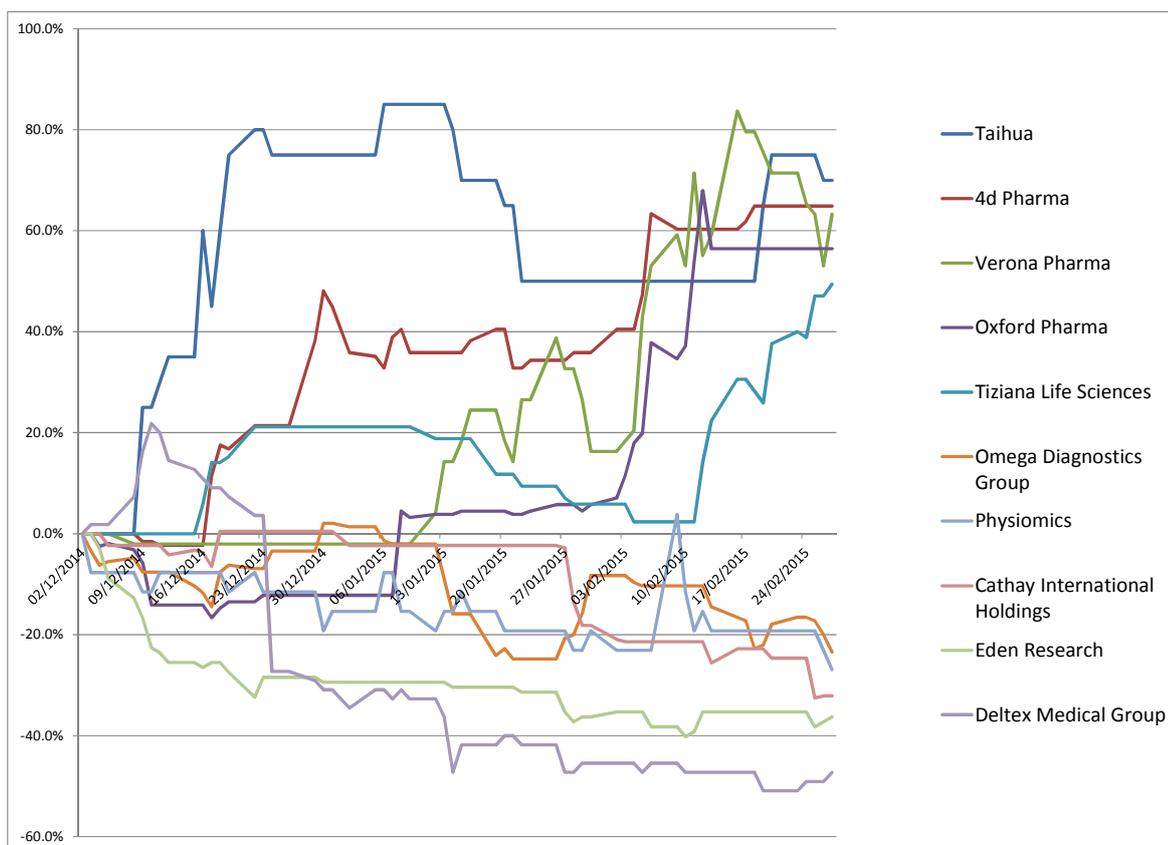
Top 5 risers and fallers

As at 2 March 2015

3 month Share price movement

Taihua	70.00%
4d Pharma	64.89%
Verona Pharma	63.27%
Oxford Pharma	56.41%
Tiziana Life Sciences	49.41%
Omega Diagnostics Group	(23.45%)
Physiomics	(26.92%)
Cathay International Holdings	(32.09%)
Eden Research	(36.27%)
Deltex Medical Group	(47.27%)

Source: Fidessa



Source Fidessa

Top 5 Risers

Taihua (LON:TAIH 4.25p/£3.5m 3mth +70%)

The China-based pharmaceutical company specialising in the cultivation of Traditional Chinese Medicine (TCM) raw materials, manufacture of TCM and certain Active Pharmaceutical Ingredients in February updated on trading for the year ended 31 December 2014. Overall sales were up slightly from RMB 52.3m to RMB 53.1. The largest revenue driver (RMB 43.3m), Forsythia saw a reduction in harvest largely due to poor weather, being offset by higher selling prices. IN TCM Bian Tong Pian continues to generate the majority of the sales in this sector and the Board are seeking to extend its distribution. In Active Pharmaceutical Ingredients, for some time now the profitability of Paclitaxel has been reducing and in 2014, it was loss-making at a Gross Margin level as by-products had not been successfully sold. The Board have decided that Taihua will cease production of Paclitaxel for an initial period of six months with immediate effect. After this period the Board will assess what impact the withdrawal from production has had on the Chinese wholesale price and will then make a further decision as to Paclitaxel's future.

Homoharringtonine sales in 2014 continued at the low level experienced in recent years. However, this product has historically been of considerable importance to Taihua due to its volume and margin so Taihua will continue to produce this Active Pharmaceutical Ingredient in the expectation of a return to earlier market conditions. Looking ahead the company commented: 'It is encouraging that the increase in wholesale price of forsythia has compensated for the reduced harvest. Taihua is working with agronomists to seek to identify ways to enhance the harvest from our plantations. The Company's Balance Sheet remains strong despite more difficult trading in the past years. The cash balance at the end of the year was RMB 46.58m.'

4D Pharma (LON:DDDD 560p/£339.2m 3mth +64.89%)

In January, the pharmaceutical company focusing on the development of live biotherapeutics, issued two research updates. Firstly Blautix™ for the treatment of Irritable bowel syndrome (IBS). Through its work on the Blautix™ programme, 4D has developed a method for humanising disease models (in this case IBS) using the gut microbiome of patients. This allows 4D to better study the effects and likely outcome of its therapeutics targeting IBS and it may also be applicable to other diseases. The humanised disease models are expected to more faithfully reproduce the conditions in the gut of patients and therefore enable the effects of targeted therapeutics to be assessed more accurately. Dr Alex Stevenson, Chief Scientific Officer of 4D, stated: "The models developed demonstrate the effect of Blautix™ in an environment that closely resembles that of an IBS

patient, which is extremely useful in helping 4D towards its target of a first in man study in Q2 2015.”

Secondly 4D updated on MicroRx, its proprietary platform for the discovery of novel live biotherapeutics and the development of its pipeline. In May 2014, the Company started work on its proprietary platform MicroRX with the aim of developing a library of bacteria and accelerating the discovery of new live biotherapeutics from that library. As with Thetanix, 4D's candidate for paediatric Crohns and Rosburix, which is in development for Paediatric ulcerative colitis, the Company initially targeted other inflammatory and autoimmune diseases. The Board of 4D is pleased to report that the Company's MicroRx platform has identified a number of bacteria that have demonstrated therapeutically relevant effects in pre-clinical models of rheumatoid arthritis, allergic asthma and severe, steroid resistant asthma.

In February 4D announced a conditional placing at 410p raising £34.75m in gross proceeds for:

- clinical development of Blautix, Thetanix and Rosburix;
- scaling up the Micro Rx platform to expand its discovery and development capability, to expand the Company's pipeline; and
- building in house development capability.

Verona Pharma (LON:VRP 1.975p/£19.95bn 3mth +63.27%)

During a period that witnessed multiple Director share purchases a total of 32,600,000 options at 2.5p were granted to directors and employees in accordance with the terms of the Company's share option plans. On 3 March the company issued a trading (y/e December 2014) and development programme update.

The closing cash position at year end was £9.97m, in line with market expectations. The Board continues to believe that this is sufficient capital to progress RPL554 to the start of Phase IIb clinical trials in 2016.

The Company expects to report a slightly lower than expected loss before tax of approximately £3.7m for the year ended 31 December 2014. The loss reflects slightly lower than expected expenditure on R&D and slightly lower expenditure than expected on general and administrative costs. Costs associated with expansion of the senior management team and board only incurred towards the end of the year.

Verona Pharma is fully focused on developing RPL554 and in January this year announced that the first subjects had successfully been dosed in the initial clinical trial with its new proprietary and

commercially scalable nebulised formulation of RPL554. The initial clinical trials are designed to prepare RPL554 for the treatment of acute exacerbations of chronic obstructive pulmonary disease (COPD).

The Board remains excited by the prospects for RPL554 as it advances further into development in 2015. Following a thorough review of the planned development and associated expenditure for RPL554, the Board has concluded that it is now timely to accelerate the work on the drug to progress to the start of phase IIb clinical trials in 2016. Therefore, gross R&D expense to be incurred in 2015 will be substantially greater than previously expected. The higher R&D spending in 2015 essentially results from moving work forward from 2016 into the current year.

Oxford Pharmascience (LON:OXP 6.2p/£62.3m 3mth +56.41%)

The specialty pharmaceutical company that redevelops medicines to make them better, safer and easier to take announced full year results to December 2014. The financial highlights are outlined below:

- Cash and cash equivalents balances of £6.7m as at 31 December 2014, providing sufficient working capital to take the Company to commercial inflection points in 2015 and beyond
- Operating loss of £3.50m (2013: £1.56m) reflecting a planned increase in R&D spend, primarily on the NSAIDs programme

The company reported the following operational highlights:

- Lead gastric safe NSAIDs programme broadened to include OXPzero™ Naproxen, Diclofenac and Aspirin, as well as Ibuprofen
- Successful optimisation of the OXPzero™ Ibuprofen to enable immediate release formulations and to solve drug release issues
- Clear commercialisation strategy with Proof-of-Concept clinical trials for OXPzero™ Ibuprofen and Naproxen planned for 2015
- Strengthening of the Board with the recruitment of John Goddard and Karl Van Horn. Both individuals bring significant experience and expertise to the Board.

On the same day the company announced that that dosing of human subjects in its comparative PK study of OXPzero™ Naproxen (OXP 005) versus Naprosyn® had begun.

Tiziana Lifesciences (LON:TILS 62p/£57.8m 3mth +49.41%)

In December, the clinical stage biotechnology company focused on targeted, drugs to treat diseases in oncology and immunology, and Novimmune S.A., a company focused on the discovery and development of antibody-based drugs to benefit patients with inflammatory, auto-immune disorders, and cancer, announced that they had entered into an agreement. In this agreement, Novimmune grants Tiziana an exclusive license for the clinical development and commercialisation of foralumab, a fully human antihuman CD3 receptor monoclonal antibody (CD3 mAb). Targeting the CD3 receptor is a well-validated approach to modulating T-cell response and achieving immunosuppression. Foralumab is a phase II asset with potential application in a wide range of autoimmune and inflammatory diseases, such as multiple sclerosis, type-1 diabetes (T1D), inflammatory bowel disease (IBD), psoriasis and rheumatoid arthritis, where modulation of a T-cell response is desirable.

Evidence suggests that in rheumatoid arthritis, anti CD3 antibodies, when used in conjunction with anti-TNF antibodies such as Humira, Remicade and Enbrel - which represent a multi-billion dollar market - may exhibit a synergistic effect. In the coming months, Tiziana will be evaluating and prioritising such potential therapeutic applications of foralumab. Tiziana will continue to focus strongly in the field of oncology, advancing its pre-clinical breast cancer research programmes in Bcl-3 and "Top 20", and now has a clinical stage asset to complement its pre-clinical portfolio.

Tiziana will pay an upfront fee of \$1.25m for the license to Novimmune within 60 days after signing the agreement and will make further payments to Novimmune totalling \$0.75m by February 2018. Tiziana will also pay a royalty on sales or a share of sub-licence revenues to Novimmune, subject to the deduction of certain costs. Gabriele Cerrone, Chairman of Tiziana, commented: "This is a transformational deal for Tiziana that broadens our pipeline, immediately converting us to a clinical stage company. Foralumab, our new lead pipeline asset, has broad potential applications in a number of important multi-billion dollar markets. We look forward to updating the market in the coming months as we evaluate how we wish to progress this exciting molecule."

In January, the company announced that it had exclusively licensed milciclib from Nerviano Medical Sciences Group (Nerviano), an Italian company dedicated to the discovery and development of breakthrough treatments for cancer. Milciclib blocks the action of specific enzymes called cyclin-dependent kinases (CDKs), which are involved in cell division as well as a number of other protein kinases. Milciclib is currently in phase II clinical trials for thymic carcinoma in patients previously treated with chemotherapy. Milciclib has demonstrated that it is well tolerated in over 263 patients in phase I and II clinical trials and has been granted orphan designation by the European Commission and by the U.S. Food and Drug Administration for the treatment of malignant thymoma / thymic epithelial tumours. Subject to successful completion of the ongoing phase II trials,

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Tiziana is committed to initiate a phase III study in this indication in 2016.

Top 5 Fallers

Omega Diagnostics Group (LON:ODX 13.357p/£14.5m 3mth -23.45%)

The company reported no news in the period apart from a number of directors' purchases the largest of which was by FD Kieron Harbinson who purchased 62,500 shares at 16.5p in December.

Physiomics (LON:PYC 0.1p/£2.3m 3mth -26.92%)

On 2nd February, the Oxford, UK based systems biology company announced the mutually agreed termination of an Equity Swap arrangement with YA (Yorkville Advisors) Global Master SPV. The announcement went on to say that 'YAGM will remain as ordinary shareholders but with no further obligations under the SWAP agreement. YAGM remains a supportive shareholder in Physiomics and we have been advised that it has placed the shares onto its long book.' By March the holding had fallen from 185.6m to 150.1m. In March Physiomics also announced its first contract for developing Virtual Tumour Clinical with a global pharmaceutical company.

Cathay International Holdings (LON: 18p/£66.2m 3mth -32.09%)

In December the investment holding company and leading operator and investor in the growing healthcare sector in the People's Republic of China, announced that Liwah Zhiti and Yangling Haotian and Xian Haotian renewed the plant extract supply agreement for a further three years from 1 January 2015 to 31 December 2017. The renewed agreement leverages key synergies between Haotian's and Lansen's plant extract business in manufacturing, R&D and marketing. The maximum value of the transactions contemplated under the renewed agreement will be approximately USD4.7m (RMB29m) each year for the years ending 2015, 2016 and 2017. In January one of its subsidiaries, Lansen announced the non-renewal of an existing distribution agreement and the entering into of a new distribution agreement for leflunomide tablets, a disease modifying anti-rheumatic (DMARD) product used for the treatment of rheumatoid arthritis.

Eden Research (LON: 8.25p/£12.71m 3mth -36.27%)

In December, the natural micro-encapsulation company announced an exclusive Licence Agreement with Sumi Agro France SAS (Sumi Agro) to sell 3AEY, an Eden-developed plant protection product in France. In addition, Sumi Agro will have the right to trial, register, develop and sell certain other plant protection products for use in France using Eden's natural encapsulation technology, GO-E Inside™.

The Licence Agreement, which lasts for twenty years, covers the use of 3AEY in a number of agricultural applications and the initial targeted use will be on grapes for control of Botrytis, a fungus that affects many plants and is a major concern across Europe. This follows the news announced on 21 November 2014 that Eden signed an exclusive Licence Agreement with Sipcam Italia Spa and Sipcam Iberia to sell 3AEY in Italy and Spain, respectively. Under the terms of the agreement, Eden will receive an upfront payment followed by a number of milestone payments relating to the approval of the product by the EU, which is expected in spring 2015, and sales targets. Eden will also receive ongoing royalty payments based on product sales.

In Malta the process to authorise 3AEY is ongoing. Once authorisation has been given by Malta, the remaining Southern EU zone member states will have 120 days in which to issue their authorisations. Eden, its advisors and its licensees fully expect authorisation in due course, following the processes and requirements of the regulatory authorities. In February Eden announced the grant of a Patent from the Korean Intellectual Property Office covering the composition and use of its key active terpene-based ingredients (Patent No. 10-1478012). However this was overshadowed by the sad announcement of the death of Clive Roland Newitt, Business Development Director, who passed away on Monday 16 February 2015, aged 58.

Deltex Medical Group (LON: 3.542p/£7.5m 3mth -42.27%)

In its pre-close update for the year ending December 2014 the global leader in oesophageal Doppler monitoring stated that Group sales for statutory reporting purposes are expected to be circa £6.5m (2013: £7.2m). The Company expects the shortfall in sales against market forecasts to result in losses being approximately £1.2m higher than market expectations. The Company plans to announce its results for the year ended 31 December 2014 in the week of 9 March 2015.

In January, Deltex announced a new dedicated trainer hospital implementation in the USA, bringing the total number of dedicated trainer accounts to seven. The new hospital is owned by the same hospital system in North West USA as one of the Company's existing dedicated trainer accounts and is covered by a newly agreed two year purchasing agreement which allows other hospitals in the 26 hospital system to implement CardioQ-ODM on the same terms. The contract commits the hospital, a large urban hospital specialising in cancer and cardiac care, to purchase a minimum of thirty single patient probes a month and allows it to purchase additional probes as the implementation progresses. The Company has now appointed a clinical trainer to support the implementation which follows a local clinical evaluation which started in August 2014.

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