hardman&co

Pharmaceuticals & Biotechnology

Source: Eikon Thomson Reuters

Market data	
EPIC/TKR	OXB
Price (p)	8.8
12m High (p)	11.5
12m Low (p)	3.0
Shares (m)	3,103.5
Mkt Cap (£m)	273.1
EV (£m)	289.8
Free Float	65%
Market	LSE

**As defined by AIM Rule 26*

Description

Oxford BioMedica is a UK-based biopharmaceutical company specializing in cell and gene therapies developed using lentiviral vectors, gene-delivery vehicles based on virus particles. In addition to vector development and manufacture, OXB has a pipeline of therapeutic candidates and undertakes innovative pre-clinical R&D in gene-medicine.

Company information

CEO	John Dawson
CFO/elect	Tim Watts/Stuart Paynter
Chairman	Lorenzo Tallarigo
	01865 783 000
	www.oxfordbiomedica.co.uk

Key shareholders

Directors	0.8%
Vulpes	18.8%
M&G	18.0%
Aviva	7.3%
Joy Group	5.9%

Diary

31 Mar	Hardman initiation
Oct-17	FDA decision: CTL019
Mar-18	2017 FY results

Analysts

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Oxford BioMedica

Ready for CTL019 approval

OXB is a specialist advanced therapy viral-vector biopharmaceutical company. It offers vector manufacturing and development services, whilst retaining proprietary drug candidates. OXB will also receive royalties on commercial products developed with its LentiVector® platform. In the six months to end June 2017, Novartis made considerable progress towards approval of CTL019, improving sentiment for OXB which supplies vector essential for its manufacture. Post-period, a new deal was signed with Novartis, with OXB potentially receiving >$100m over three years. The cash position @31st July was £22.1m.

- **Strategy:** Oxford BioMedica has four strategic objectives: delivery of process development services that embed its technology in partners' commercial products; commercial manufacture of lentiviral vector; out-licensing of proprietary candidates; and investment in R&D and the LentiVector platform.

- **Interim results:** Revenue from process development/bioprocessing and licensing income increased +26% to £15.7m (£12.5m), improving underlying EBIT losses to -£4.23m (-£6.68m). Period-end cash was £10.2m, which increased to £22.1m in July 2017 after the $10m Novartis up-front and 2016 tax credits.

- **Novartis deal:** Extending its existing relationship with Novartis, OXB will supply clinical and commercial vector for CTL019 and other (undisclosed) Chimeric Antigen Receptor T cell (CAR-T) therapies. Key points are $10m up-front, >$90m from a minimum off-take contract over three years, plus royalties on net sales.

- **Debt refinancing:** A new $55m loan agreement was signed on 30th June with Oaktree Capital which is being used to repay the significantly more expensive existing loan from Oberland Capital, saving OXB ca.$1.2m per annum, whilst also freeing up the $10m unusable cash that is ring-fenced.

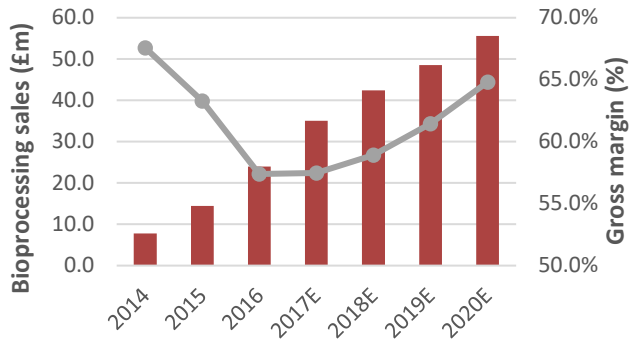
- **Investment summary:** OXB is at an interesting juncture. Heavy investment in state-of-the-art GMP manufacturing facilities for production of gene therapy vector has enabled the deal with Novartis, placing the group on the cusp of significant service income and royalties. Forecasts suggest OXB will turn EBITDA positive in 2017, and become profitable overall at the EBIT level in 2018. Bioprocessing royalties are likely to result in significant upside potential in the near future.

Financial summary and valuation

Year end Dec (£m)	2014	2015	2016	2017E	2018E	2019E
Sales	13.62	15.91	27.78	38.8	47.0	54.0
EBITDA	-9.29	-11.73	-6.78	2.4	7.6	12.9
Underlying EBIT	-10.39	-13.35	-10.45	-2.0	3.2	8.4
Reported EBIT	-10.61	-14.08	-11.32	-3.0	2.1	7.3
Underlying PBT	-10.58	-16.25	-16.26	-6.7	-1.1	4.2
Statutory PBT	-10.80	-16.98	-20.31	-7.7	-2.2	3.0
Underlying EPS (p)	-0.42	-0.48	-0.45	-0.07	0.11	0.28
Statutory EPS (p)	-0.43	-0.51	-0.60	-0.10	0.08	0.25
Net (debt)/cash	13.20	-17.90	-19.05	-16.7	-14.1	-6.2
Shares issued	22.81	0.14	17.50	0.1	0.1	0.1
P/E (x)	-	-	-	-	76.9	30.9
EV/sales (x)	-	-	-	119.4	38.1	22.5

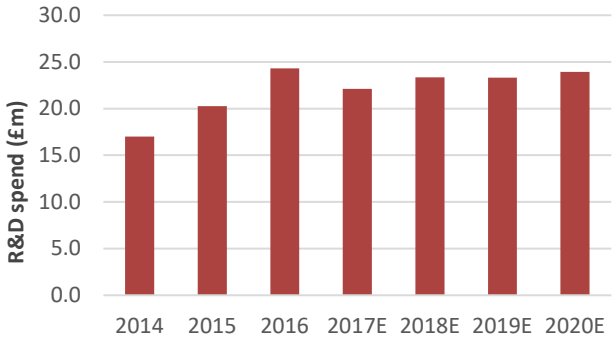
Source: Hardman & Co Life Sciences Research

Sales and gross margin



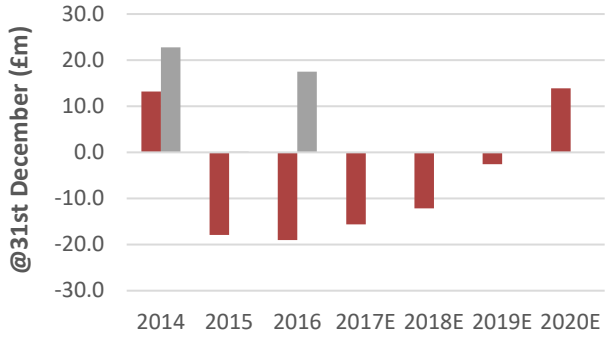
- Oxford BioMedica's current sales are from bioprocessing (and process development) fees, plus additional income such as development milestones
- In addition, royalties will be receivable after partners' therapies reach the market, expected from 2019
- The gross margin has been 60-70% and is likely to trend higher when operating at full capacity

R&D investment



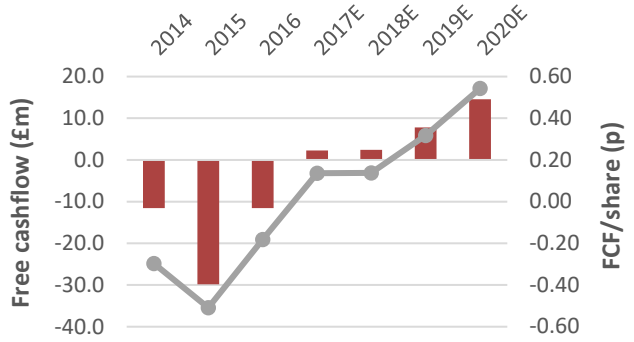
- Oxford BioMedica intends to out-license/spin-out proprietary candidates for clinical development
- Underlying R&D spend on its own discovery programmes was -£10.5m in 1H'17
- R&D spend will increase only modestly to maintain momentum of proprietary candidate development whilst partners are identified

Net cash/capital increases



- During 2016, the company raised new funds of around £17.5m in two share issues
- At 30th June 2017, OXB had net debt of -£23.69 (£10.2m cash, £37.6m debt) compared to -£19m on 31st December 2016
- $10m/£7.7m received from Novartis in 2H'17 following signing of the new commercial supply agreement

Free cashflow



- While the company will be cash generative in 2017, this has the benefit of the Novartis up-front; from a purely operational standpoint, OXB is forecast to become cash positive in 2019 as royalties are received
- 2015 cash flow was impacted by investment in manufacturing facilities to increase GMP bioprocessing capacity to commercial scale

Source: Company data; Hardman & Co Life Sciences Research

Interim results – 2017

Key highlights

Operational

- **Novartis:** Significant progress has been made on several fronts with respect to the Novartis partnership, culminating in a supply agreement worth potentially >$100m over the next three years
- **CTL019:** FDA acceptance in March 2017 of the BLA filing for CTL019 for acute lymphocytic leukaemia (ALL) was followed by a positive Advisory Committee meeting in July, setting up a potential approval in October

Financial

1H'17 sales summary

£m	1H'16	1H'17	CER growth
Bioprocessing + Process Dev.	10.8	13.7	+27%
Licensing & Milestones	1.7	2.0	+18%
Total sales	**12.5**	**15.7**	**+26%**
Other income	1.5	0.8	-45%
Group revenues	**14.0**	**16.5**	**+18%**

Source: Company report; Hardman & Co Life Sciences Research

- **Sales:** Bioprocessing and process development sales increased +27% (CER) to £13.7m (£10.8m), boosted by licensing and milestone income of £12.5m (+18%) to give overall sales growth of +26% to £15.7m (£12.5m)
- **Gross margin:** An expected increase in COGS, in readiness for commercialisation of CTL019 and with the manufacturing capability running well below capacity, saw gross margins ease back to 49.0% from 61.1%.
- **SG&A:** The marketing/overhead cost was better than expected at -£2.3m, down -23% from 1H'16 (-£3.1m) to a level that is likely to be sustained going forward.
- **R&D:** Investment in R&D is continuing, but at a lower rate than seen historically, falling -18% to £10.5m (-£12.7m), a maintenance level to drive OXB's own portfolio and identify new opportunities
- **Underlying EBIT:** The operating loss was reduced significantly from -£6.7m to -£4.2m in 1H'17, which was about £1m better than forecast
- **Cash position:** At 30th June 2017, net debt was -£23.7m, comprising cash of £10.2m and debt of £37.1m. Receipt of the $10m up-front from Novartis and a tax rebate increased the cash balance to £22.1 @31st July 2017

Actual vs expectations

Period to March (£m)	1H'16 actual	1H'17 actual	1H'17 forecast	Delta
Sales	12.49	15.69	15.05	+0.64
COGS	-4.85	-8.00	-7.50	-0.50
SG&A	-3.11	-2.28	-2.65	+0.37
R&D	-12.74	-10.49	-11.20	+0.71
Other income	1.54	0.84	1.00	-0.16
Underlying EBIT	**-6.68**	**-4.23**	**-5.30**	**+1.07**
+Depreciation & Amort.	1.47	2.17	2.00	+0.17
EBITDA	**-5.21**	**-2.06**	**-3.30**	**+1.24**
Underlying EPS (p)	-0.25	-0.23	-0.25	+0.02
Net cash/(debt)	**+19.41**	**-23.69**	**-22.50**	**-1.20**

Source: Hardman & Co Life Sciences Research

Operational update

OXB management announced a refined product development strategy in 2016, highlighting that clinical development of the company's proprietary assets would be undertaken by partners to allow resources to be directed towards development of the LentiVector platform and to provision of bioprocessing services. In the six months to 30th June 2017, the company made progress in developing the platform to include methodology that increases vector yields. This was followed, in July 2017, by the long-anticipated announcement of a deal to supply Novartis with clinical and commercial lentiviral vector for its CAR-T programmes.

Novartis partnership

Update on CTL019

Acute lymphocytic leukemia

OXB supplies Novartis with vector for CTL019 and other CAR-T gene-therapy candidates

OXB currently provides bioprocessing/manufacture of lentiviral vector to three external partners for their clinical development programmes. Key has been its partnership with Novartis since 2014 as a provider of process development services and as the sole manufacturer of lentiviral vector for two Chimeric Antigen Receptor T cell (CAR-T) programmes: CTL019 (tisagenlecleucel) and an undisclosed CAR-T.

CTL019 is under review by FDA for market authorisation in B-ALL…

…a decision is expected by October 2017

An FDA Advisory Committee reviewed the BLA filing for CTL019 in paediatric and young adults with B-cell acute lymphoblastic leukemia (B-ALL) in July, which unanimously recommended approval of the therapy in relapsed/refractory patients. An FDA decision should be made by October 2017: approval is likely to follow the ODAC recommendation, which would make CTL019 the first FDA approved CAR-T therapy. This news has greatly improved market sentiment, as reflected in the sustained increase in OXB's share price by +61% between 23rd June and 21st August.

Diffuse large B-cell lymphoma

CTL019 has breakthrough designation in DLBCL…

…showing a 45% overall response rate at three months

CTL019 was granted breakthrough therapy designation in diffuse large B-cell lymphoma (DLBCL) by the FDA in April 2017. Our note entitled 'Major deal to supply Novartis CAR-T programmes', published 7th July 2017, discusses recent data from the ELIANA (B-ALL) and JULIET (DLBCL) trials, the latter showing a 45% overall response rate (in 51 patients) at three months. Novartis is expected to file for a BLA in this indication with the FDA later in 2017.

Commercial supply agreement

New deal signed with Novartis…

…$10m cash up-front and potentially >$90m to OXB

On 6th July, OXB announced an extension to its 2014 agreement with Novartis, becoming the supplier of lentiviral vectors used in clinical and commercial manufacture of CTL019 and of other, undisclosed CAR-T therapies. The agreement is for three years, with possible extension to five years, with the following terms:

- **Supply lentiviral vector:** for manufacture of CTL019 (tisagenlecleucel) and other (undisclosed) CAR-T products, including a minimum off-take requirement
- **Up-front payment:** OXB received $10m cash on signing the deal
- **Potential receipts:** In excess of $90m including performance incentives, and bioprocessing and process development fees, over the three-year period
- **Royalties:** Payment of an estimated low single digit royalty on net sales of Novartis's CAR-T products, with CTL019 launch anticipated later in 2017

LentiVector platform

Regulatory update

Good regulatory progress…

As part of the FDA's BLA approval process for CTL019, OXB and its facilities have undergone a successful pre-licence inspection by the Center for Biologics Evaluation and Research (CBER). This is necessary for licensure of CTL019 under the Code of Federal Regulations and for its subsequent launch in the US market.

… successful FDA pre-licence inspection…

…and Manufacture / Importer Licence awarded by MHRA for distribution of lentiviral vector

In addition, OXB has been granted a Manufacturer/Importer Licence (MIA) by the UK's pharmaceutical and medical devices regulatory agency, the MHRA. This permits the group to manufacture and distribute lentiviral vector for commercial manufacture of human medicines, and builds on the existing MIA licence for Investigational Medicinal Products (IMPs) that OXB has held for more than a decade. This is a significant milestone for the group in becoming a major commercial provider of virus-based vector for advanced therapies.

Next-generation bioprocessing

New - higher yield and cheaper - vector manufacturing technology…

…could increase future patient access to advanced therapies

OXB's intellectual property is covered by more than 100 patents and includes extensive know-how. Its IP covers technologies across the vector development and manufacturing process, from vector engineering and bioprocessing to downstream assays. The company has been improving its bioprocessing technology to increase production efficiencies, to increase the yield of vector per unit produced, and to reduce COGS. For example, OXB now produces vector *via* a proprietary single-use, serum-free, suspension culture process in 200 litre bioreactors – pilot studies suggest significant improvement in volume (+54% compared to 1st generation process), yield, potency, purity, and efficiency, leading to a 10-fold reduction in the cost of patient doses with its next-generation technologies.

TRiP yield enhancement

Proprietary TRiP technology…

…increases yield, and applicable to a range of gene-based medicines

In particular, OXB has developed the TRiP system (Transgene Repression in vector Production), which suppresses over-expression of therapeutic genes during the vector production process. Over-expression is a common problem that can reduce the yield of gene therapy vectors, so the TRiP system is beneficial to the manufacture of a range of gene-based medicines. Data from application of the system to production of a variety of viral vector types were published in the journal *Nature Communications* in March 2017. TRiP is patent protected until 2034.

Innovate UK grant

New £2m collaboration established to further develop vector for gene-based medicines…

…partly funded by Innovate UK

Following the period end, in August 2017, OXB and collaborators were awarded a grant by Innovate UK, the UK's innovation agency, in line with the government's current strategy to develop the UK into a global hub for manufacturing of advanced therapies. OXB has established a consortium to collaboratively develop even higher quality vectors for advancement of gene based medicines. The £2m project has the wider aims of reducing the time-to-clinic of such therapies and of increasing patient access by reducing costs. Partners include:

- **Cell and Gene Therapy Catapult:** established by Innovate UK 'to drive the growth' of the cell and gene therapy industry. A £55m large-scale GMP manufacturing centre is under construction at the Bioscience Catalyst site in Stevenage, Hertfordshire

- **Stratophase Ltd:** uses its Ranger technology to optimise process development and reduce timelines to clinic. Headquartered in Hampshire, UK
- **Synthace Ltd:** a bioinformatics company that sells its specialist Antha OS for automation of laboratory protocols, sample tracking, among other biological applications. Based in The London Bioscience Innovation Centre

In-house development

One of the major strengths of Oxford BioMedica's business model and updated strategy will be retention of long-term royalties from partner sales of biopharmaceutical products that OXB has been involved in *via* vector process development. These will be in addition to commercial bioprocessing (manufacturing) fees.

In addition, the company has three 'priority' candidates for clinical development: a gene-therapy candidate for Parkinson's Disease; technology for genetic modification of donated human corneas to reduce rejection on transplant; and a CAR-T cell therapy for treatment of solid tumours. Their development is on hold pending partnership, as achieved for the two gene-based medicines that originated at OXB that are currently being developed by Sanofi. Partnerships for clinical development of proprietary therapeutic candidates are not yet in place; however, there are feasibility studies ongoing and new deals are expected to be announced over the next 12 months. The company has restated their commitment to pre-clinical R&D.

OXB-102 update

Clinical trial of OXB-102 in Parkinson's disease could begin in 1H'18

Advancement has been made in the OXB-102 clinical programme, the candidate gene-therapy for Parkinson's disease, with modest investment made towards a clinical trial: a better device for delivery of the modified vector to the brain has been identified, and a regulatory dossier is to be submitted to the MHRA in the second half of the year. The company is aiming to start treatment in the first half of 2018.

Product pipeline

Status of OXB's pipeline and partnerships as at 30th June 2017.

Oxford BioMedica – Product pipeline

Product	Indication	Pre-Clinical	Phase I	Phase I/II	Phase II	Phase III	Approval	
OXB Proprietary Products								
OXB-102	Parkinson's disease					To be spun out or out-licensed		OxfordBioMedica
OXB-202	Corneal graft rejection							OxfordBioMedica
OXB-302	Cancer, multiple							OxfordBioMedica
OXB-201	Wet AMD							OxfordBioMedica
OXB Partnered products								
SAR422459	Stargardt disease					Development milestones and royalties		SANOFI
SAR421869	Usher syndrome 1B							SANOFI
Partners' Products								
CTL019[1]	r/r ALL					Process development and bioprocessing revenues, and royalties[2]	(expected H2 2017)	NOVARTIS
CTL019[1]	r/r DLBCL							NOVARTIS
2nd CAR-T	Cancer (multiple)							NOVARTIS
CMB305	Advanced, relapsed or metastatic sarcoma							IMMUNE DESIGN
LV305	NY-ESO-1 expressing cancers							IMMUNE DESIGN
ADA-SCID	ADA severe combined immunodeficiency							Orchard therapeutics
MPS IIIA	Sanfilippo A syndrome							Orchard therapeutics
Undisclosed	Undisclosed							gsk
Undisclosed	Undisclosed							gsk

Source: Company reports

Financial update

Stronger trading performance

Recent strong trading performance, assisted by Novartis' progress with CTL019

The company reported a much stronger trading performance in 1H'17, continuing the positive trend that has emerged over the last three years. Instrumental within this is the movement of CTL019 towards commercialisation by Novartis. OXB has two identifiable segments: partnering, which encompasses bioprocessing and product development activities on behalf of third parties; and R&D, which is the furthering of OXB's own proprietary products.

Bioprocessing & product development

Positive and improving trend in operating performance of Partnering segment

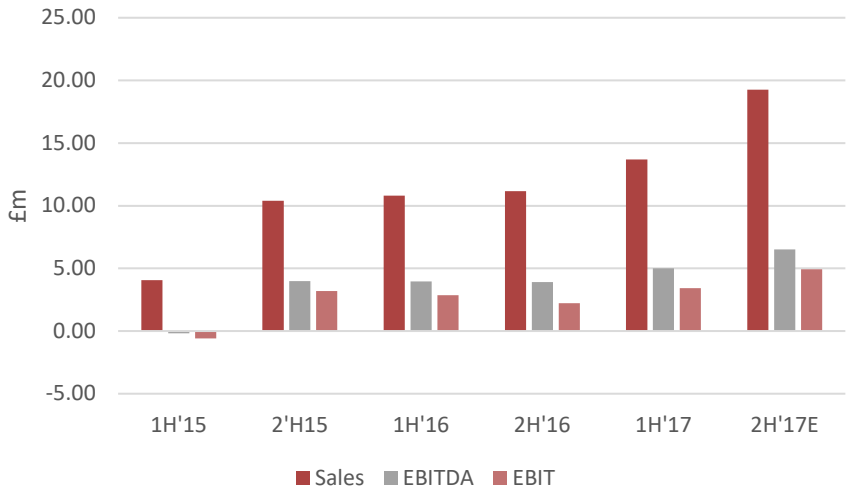
Group COGS are essentially the manufacturing and process development costs for the 'Partnering' segment. Although there will be some overhead costs that are related to R&D and corporate, even allocating all reported SG&A costs to this segment still produces a positive trend in operating performance.

Analysis of Partnering segment

	1H'15	2'H15	1H'16	2H'16	1H'17	2H'17E
Sales	4.05	10.39	10.81	11.17	13.69	19.27
COGS	-2.39	-3.45	-4.85	-6.98	-8.00	-11.84
Gross profit	1.66	6.94	5.96	4.19	5.69	7.44
Gross margin	41.0%	66.8%	55.1%	37.5%	41.6%	38.6%
SG&A	-2.25	-3.76	-3.11	-1.98	-2.28	-2.51
EBIT	**-0.59**	**3.18**	**2.85**	**2.21**	**3.41**	**4.93**
EBIT margin	**-14.6%**	**30.6%**	**26.4%**	**19.8%**	**24.9%**	**25.6%**
D&A	0.40	0.80	1.10	1.70	1.60	1.60
EBITDA	-0.19	3.98	3.95	3.91	5.01	6.53
EBITDA margin	-4.7%	38.3%	36.5%	35.0%	36.6%	33.9%

Source: Hardman & Co Life Sciences Research

Partnering – improving operational trend



Source: Hardman & Co Life Sciences Research

R&D

The R&D segment represents largely the investment being made by the company to further develop its own proprietary products to the stage of clinical development and then to out-license or partner the programmes.

Working capital

In the run-up to the potential commercial launch of CTL019, there was an inevitable increase in bioprocessing activity as identified by a build-up in inventories and creditors during 1H'17, although this was offset by an increase in debtors. Overall, the change in working capital was a relatively modest -£1.3m.

Revaluation of non-core investments

Non-cash gains of £2.3m in 1H'17…

…due to upwards valuation of Orchard Therapeutics

The statutory operating profit benefited significantly from a revaluation of the group's 1.95% stake in Orchard Therapeutics Limited, made in November 2016. This increased the carrying value from £0.67m to £2.95m, giving rise to a non-cash gain of £2.30m. The revaluation was carried out by the company and the change is transparent; however, the rationale for this revaluation is far less clear.

At the time of going to press, we have been unable to ascertain whether Orchard Therapeutics has undertaken a capital increase at a higher valuation, the most likely rationale for the revaluation. Other key events could include:

- An alliance with PharmaCell B.V., a leading Contract Manufacturing Organization (CMO) for Cell and Gene Therapies and Regenerative Medicine (Jan 2017)
- A clinical manufacturing services agreement with PCT Cell Therapy Services, LLC (part of Hitachi Group) (May 2017)
- Rare Paediatric Disease Designation from FDA for OTL-101 for the treatment of adenosine deaminase severe combined immunodeficiency, commonly known as ADA-SCID or "bubble baby" disease (post balance sheet event in July 2017)

In the event that Orchard Therapeutics:

- releases more detailed information, and/or
- raises more capital

either of which would result in defining a new valuation level, there is the potential to either raise or reduce the holding value of OXB's stake in the future.

Oaktree Capital loan

Favourable debt refinancing using $55m Oaktree Capital loan in 1H'17 …

…with less stringent requirements for minimum cash balances…

…and final $5m drawn down in July 2017

On 30th June 2017, OXB announced a $55m loan agreement with Oaktree Capital Management LLP, which has been used to fully repay its existing $50m loan and 'true-up' from Oberland Capital Healthcare (see page 7 of our report dated 7th July 2017: "*Major deal to supply Novartis CAR-T programmes*"). The terms of the new Oaktree loan are much more favourable, coupled with less stringent requirements regarding minimum cash balances that need to be held.

At the period end, $50m of the Oaktree facility has been drawn down, with the fair value of the capital less capitalised legal and other costs appearing as long-term loans (£33.9m), and the fair value of the associated warrants shown as equity (£1.2m). The remaining $5m/£3.8m of the loan was drawn down during July.

Stronger balance sheet

Strong cash position of £22.1m on 31st July 2017 following financing activities, Novartis upfront, and R&D credits

The requirement for OXB to maintain $10m in a segregated bank account while the Oberland loan was in place raised concern in some quarters of the market that the company might need to raise more cash. However, freeing up this portion of cash with the new Oaktree loan, coupled with receipts from Novartis ($10m/£7.7m), HMRC (R&D tax credit estimated at £3.3m), and drawdown of the final $5.0m (£3.8m) from Oaktree, has left OXB with a strong cash position of £22.1m at the end of July that will allay market concerns.

Change in net debt

	30 June 2016	31 Dec 2016	30 June 2017	31 July 2017
Novartis up-front				7.70
Tax rebate est			-	3.30
Loan drawdown			-	3.85
Other (working cap)				-3.35
Cash	11.91	15.34	10.18	22.10
Debt	-31.32	-34.39	-33.87	-37.90
Net debt	**-19.41**	**-19.05**	**-23.69**	**-15.84**

Source: Hardman & Co Life Sciences Research

Changes to forecasts

Modest only changes to FY 2017 forecasts…

…notably increasing COGS by 14%…

…decreasing EBITDA to £2.4m

Reflecting on the interim results, only modest changes to our forecasts have been made. The notable differences are as follows:

- **COGS:** The outcome for 1H'17 suggests that our full year number is too low. While it is difficult to predict the leverage effect of increased capacity utilisation, the manufacturing costs for 2H'17 are unlikely to be lower than those in 1H'17 on increased sales, therefore our number has been increased by +14%
- **SG&A:** Full year costs have been reduced by -4% given that the 1H'17 overhead was slightly lower than expected
- **R&D:** Ongoing investment has been lowered by -3% to reflect the lower than expected outcome for 1H'17. The 2017 level is expected to be broadly stable going forward
- **EBITDA:** Forecasts still suggest that OXB will be EBITDA positive in 2017, although less so (-30%) than previously forecast
- **Underlying EBIT:** Current forecasts suggest that OXB will become profitable overall at the EBIT level in fiscal 2018
- **Other income:** Forecasts do not assume any further licensing deals. In the event of any such deal, an up-front payment would have a significant effect on forecasts

Changes to forecasts

Year to	2017E			2018E		2019E	
Dec (£m)	old	new	change	old	new	old	new
Sales	35.1	35.1	n/c	42.2	42.4	48.6	48.6
COGS	-14.5	-16.5	+14%	-16.9	-19.3	-18.0	-20.8
SG&A	-5.2	-5.0	-4%	-5.5	-5.3	-5.7	-5.5
R&D	-22.8	-22.1	-3%	-24.6	-23.3	-24.3	-23.3
EBITDA	**3.5**	**2.4**	**-30%**	**8.5**	**7.6**	**14.4**	**12.9**
D&A	-4.4	-4.4	n/c	-4.4	-4.4	-4.4	-4.4
EBIT(u/l)	**-0.9**	**-2.0**	**>100%**	**4.1**	**3.2**	**10.0**	**8.5**

Source: Hardman & Co Life Sciences Research

Forecasts

Profit and Loss

- **Licensing income:** Up-front $10m/£7.7m from Novartis has been included in other income – spread over three years from 5th July 2017
- **Net interest:** Interest payable has been reduced by $0.55m/£0.4m in 2017 to reflect the six month benefit from the new Oaktree loan facility. A further, similar, reduction has been included in fiscal 2018

Profit & Loss account						
Year end Dec (£m)	**2014**	**2015**	**2016**	**2017E**	**2018E**	**2019E**
GBP:EUR	1.24	1.38	1.18	1.18	1.18	1.18
GBP:USD	1.65	1.53	1.35	1.35	1.35	1.35
Bioprocessing + PD*	7.80	14.44	23.98	35.06	42.42	48.56
Additional income	6.37	3.54	3.80	3.78	4.58	5.43
Group revenues	**13.62**	**15.91**	**27.78**	**38.80**	**47.00**	**54.00**
COGS	-4.42	-5.84	-11.84	-16.50	-19.30	-20.81
Gross profit	**9.20**	**10.07**	**15.94**	**22.30**	**27.70**	**33.19**
Gross margin (%)	67.6%	63.3%	57.4%	57.5%	58.9%	61.5%
SG&A	-3.74	-6.01	-5.09	-5.00	-5.26	-5.50
R&D	-16.99	-20.27	-24.30	-22.10	-23.35	-23.31
EBITDA	**-9.29**	**-11.73**	**-6.78**	**2.43**	**7.60**	**12.88**
Depreciation	-0.70	-1.26	-3.34	-4.10	-4.10	-4.10
Amortisation	-0.40	-0.36	-0.34	-0.34	-0.34	-0.34
Other income	1.13	2.86	3.00	2.78	4.07	4.07
Underlying EBIT	**-10.39**	**-13.35**	**-10.45**	**-2.01**	**3.16**	**8.45**
EBIT margin (%)	76.3%	83.9%	37.6%	-5.2%	6.7%	15.6%
Share based costs	-0.22	-0.73	-0.87	-0.97	-1.07	-1.17
Exceptional items	0.00	0.00	0.00	0.00	0.00	0.00
Stat. Operating profit	**-10.61**	**-14.08**	**-11.32**	**-2.97**	**2.10**	**7.28**
Net interest	-0.19	-2.90	-5.81	-4.68	-4.28	-4.27
Forex gain/loss	0.00	0.00	-3.18	0.00	0.00	0.00
Pre-tax profit	**-10.58**	**-16.25**	**-19.44**	**-6.69**	**-1.12**	**4.18**
Exceptional items	0.00	0.00	0.00	0.00	0.00	0.00
Reported pre-tax	-10.80	-16.98	-20.31	-7.66	-2.18	3.01
Tax payable/credit	2.14	3.96	3.67	4.42	4.67	4.66
Underlying net income	**-8.44**	**-12.29**	**-15.78**	**-2.27**	**3.55**	**8.84**
Statutory net income	-8.66	-13.02	-16.64	-3.24	2.49	7.67
Ordinary shares (m)						
Period-end	2,566	2,574	3,088	3,104	3,105	3,106
Weighted average	2,019	2,570	2,780	3,094	3,104	3,105
Fully diluted	2,108	2,670	2,909	3,351	3,361	3,363
U/lying Basic EPS (p)	**-0.42**	**-0.48**	**-0.57**	**-0.07**	**0.11**	**0.28**
Stat. Basic EPS (p)	-0.43	-0.51	-0.60	-0.10	0.08	0.25
U/l Fully-diluted EPS (p)	**-0.40**	**-0.46**	**-0.54**	**-0.07**	**0.11**	**0.26**
Stat. Fully-diluted EPS (p)	-0.41	-0.49	-0.57	-0.10	0.07	0.23
DPS (p)	0.0	0.0	0.0	0.0	0.0	0.0

**PD: Process Development*

Source: Hardman & Co Life Sciences Research

Balance sheet

- **Novartis up-front payment:** accrued and included in the P&L under other income, this drops through to cashflow, benefiting the period-end cash balance
- **Loan facilities:** There is no material change in the long-term debt, with little difference between the new $55m Oaktree facilities being used to repay the $50m loan from Oberland plus true-up payments
- **Ring-fenced cash:** Freeing up the $10m ring-fenced cash does not make any difference to the total cash held in the balance sheet at the period end
- **Changes to forecasts:** No material change other than the £7.7m up-front from Novartis improving the net debt position at the end of fiscal 2017 from -£25.0m to -£16.9m, which also flows through to subsequent years

Balance sheet

@31st December (£m)	2014	2015	2016	2017E	2018E	2019E
Shareholders' funds	23.04	10.89	12.62	9.48	12.06	19.84
Cumulated goodwill	0.00	0.00	0.00	0.00	0.00	0.00
Total equity	23.04	10.89	12.62	9.48	12.06	19.84
Share capital	25.66	25.74	30.88	30.88	30.88	30.88
Reserves	-2.62	-14.85	-18.26	-21.40	-18.81	-11.04
Provisions/liabilities	3.46	4.42	3.94	0.00	0.00	0.00
Deferred tax	0.00	0.00	0.00	0.00	0.00	0.00
Long-term loans	1.00	27.26	34.39	37.12	39.85	42.58
Short-term debt	0.00	0.00	0.00	0.00	0.00	0.00
less: Cash	14.20	9.36	15.34	20.46	25.74	36.37
less: Deposits	0.00	0.00	0.00	0.00	0.00	0.00
Invested capital	**13.31**	**33.21**	**34.95**	**26.13**	**26.18**	**26.05**
Fixed assets	8.94	24.40	27.51	25.35	23.09	21.05
Intangible assets	2.11	1.74	1.33	1.00	0.66	0.33
Inventories	1.41	2.71	2.20	3.22	3.90	4.46
Trade debtors	*3.62*	*7.37*	*5.43*	*2.36*	*2.84*	*3.40*
Other debtors	*1.53*	*3.56*	*1.47*	*4.94*	*4.94*	*4.94*
Tax liability/credit	*-2.79*	*-3.59*	*-2.51*	*3.67*	*4.42*	*4.67*
Trade creditors	*2.00*	*2.72*	*3.00*	*-1.58*	*-1.58*	*-1.58*
Other creditors	*-3.52*	*-5.70*	*-3.49*	*-12.82*	*-12.09*	*-11.22*
Debtors less creditors	0.85	4.37	3.90	-3.43	-1.47	0.22
Invested capital	**13.31**	**33.21**	**34.95**	**26.13**	**26.18**	**26.05**
Net cash/(debt)	**13.20**	**-17.90**	**-19.05**	**-16.66**	**-14.11**	**-6.21**

Source: Hardman & Co Life Sciences Research

Cashflow

- **Novartis up-front:** Received in July 2017 which, together with the R&D tax credits, suggests that OXB will be modestly cash generative in fiscal 2017
- **Depreciation:** The depreciation rate has risen following completion during 2016 of the new manufacturing facilities in Oxford
- **Working capital:** Given that much of OXB's work is on a fee-for service basis, there is no major working capital requirement for the group. However, preparation for the commercialisation of CTL019 has required increased short-term working capital in 1H'17, offset, more recently, by the freeing up of the $10m ring-fenced cash under the Oberland loan terms
- **Net interest:** The actual cash paid on loan interest is lower than the charge to the P&L account because there is no cash payment associated with the amortisation charge accruing
- **Cap-ex:** Completion of Windrush Court facilities is expected to see capital expenditure fall to maintenance levels, estimated at around £2m per annum

Cashflow

Year end Dec (£m)	2014	2015	2016	2017E	2018E	2019E
Underlying EBIT	-10.39	-13.35	-10.45	-2.01	3.16	8.45
Depreciation	0.70	1.26	3.34	4.10	4.10	4.10
Amortisation	0.40	0.36	0.34	0.34	0.34	0.34
Inventories	*-0.73*	*-1.30*	*0.50*	*-1.02*	*-0.68*	*-0.56*
Receivables	*-2.56*	*-5.78*	*4.03*	*-0.39*	*-0.47*	*-0.57*
Payables	*3.37*	*2.98*	*-3.28*	*0.00*	*0.00*	*0.00*
Change in working capital	0.08	-4.09	1.25	-1.41	-1.15	-1.13
Exceptionals/provisions	1.65	0.95	-0.75	5.65	-0.75	-0.75
Disposals	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.13	0.00	-0.90	0.00	0.00	0.00
Company op cashflow	**-7.43**	**-14.87**	**-5.93**	**5.25**	**4.55**	**9.87**
Net interest	-0.19	-1.46	-3.21	-4.68	-4.68	-4.68
Tax paid/received	1.64	3.24	4.08	3.67	4.42	4.67
Operational cashflow	-5.98	-13.08	-5.06	4.24	4.29	9.86
Capital expenditure	-5.58	-16.72	-6.46	-1.94	-1.84	-2.06
Sale of fixed assets	0.00	0.00	0.00	0.00	0.00	0.00
Free cashflow	**-11.56**	**-29.80**	**-11.52**	**2.30**	**2.45**	**7.80**
Dividends	0.00	0.00	0.00	0.00	0.00	0.00
Acquisitions	0.00	0.00	0.00	0.00	0.00	0.00
Disposals	0.00	0.00	0.00	0.00	0.00	0.00
Other investments	0.00	0.00	0.00	0.00	0.00	0.00
Cashflow after invests.	**-11.56**	**-29.80**	**-11.52**	**2.30**	**2.45**	**7.80**
Share repurchases	-0.23	0.00	0.00	0.00	0.00	0.00
Share issues	22.81	0.14	17.50	0.10	0.10	0.10
Currency effect	0.00	-1.44	-7.13	0.00	0.00	0.00
Loans/cash acquired	0.00	0.00	0.00	0.00	0.00	0.00
Change in net debt	**11.03**	**-31.10**	**-1.15**	**2.40**	**2.55**	**7.90**
Hardman FCF/share (p)	-0.30	-0.51	-0.18	0.14	0.14	0.32
Opening net cash	2.17	13.20	-17.90	-19.05	-16.66	-14.11
Closing net cash	**13.20**	**-17.90**	**-19.05**	**-16.65**	**-14.11**	**-6.21**

Source: Hardman & Co Life Sciences Research

Notes

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