EDISON

Oxford BioMedica

Corporate update

Diversified strategy showing its strength

Pharma & biotech

Strong operational momentum at Oxford BioMedica (OXB), as evidenced by its interim maiden operating profit of £9.4m (vs a loss of £2.2m in H117), highlights the strength in the company's diversified business model. We continue to expect ongoing growth in the top line, driven in the near term by the commercial ramp-up of Kymriah (Novartis), the progression of Bioverativ's haemophilia products to the clinic and the rapid advancement of its partnered products with Orchard and Axovant. We note that Immune Design's CMB305 clinical programme has been halted, but forecast that the operational and financial impact on OXB will be minimal. OXB has transitioned three new preclinical assets into its pipeline: OXB-204 (Ophthalmology-LCA10), OXB-208 (Ophthalmology- RP1) and OXB-103 (amyotrophic lateral sclerosis). Additionally, OXB has announced the expansion of its lentiviral manufacturing capacity with a fourth facility. We value OXB at £632m vs £614m previously.

Year end	Revenue (£m)	PBT* (£m)	EPS* (p)	DPS (p)	P/E (x)	Yield (%)
12/16	27.8	(20.0)	(29.35)	0.0	N/A	N/A
12/17	37.6	(11.5)	(14.14)	0.0	N/A	N/A
12/18e	74.3	3.8	4.80	0.0	163	N/A
12/19e	85.1	4.6	5.65	0.0	138	N/A

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments. EPS updated for share consolidation.

Growth the focus, profit the benefit

Growth in H118 platform (£25.0m) and product revenues (£10.2m) was aided by new partnerships/deals with Bioverativ (£8.1m) and Axovant (£10.2m) respectively. Remaining platform revenue of £15.4m (H117: £13.1m) was predominately driven by bioprocessing/commercial development revenue from the Novartis and Orchard collaborations. Despite increases in H118 R&D to £14.1m (H117: £10.5m), COGS of £10.1m (H117: £8.0m) and financial costs of £4.2m (H117: £3.7m), net income for H118 was a £5.1m profit. We forecast a FY18 net profit of £3.1m (FY17:-£9.0m).

Diversified model minimises capital risk

Kymriah is now approved in the US and EU for DLBCL and pALL. Near-term focus will now be on the success of Novartis's commercialisation efforts. Axovant has dosed the first Parkinson's patient with AXO-Lenti-PD in its Phase I/II trial and initial data are expected in H119. Other near-term value drivers include new platform partnerships and spinning out/out-licensing assets. Funded by the net £19.3m raised in March, OXB has announced the construction of a new manufacturing facility that will more than double its bioprocessing capacity. This includes four GMP suites, a fill-and-finish facility and a cold warehouse. The warehouse is expected to open in Q119, with the GMP suites ready in Q120.

Valuation: £632m or £9.57/share

We value OXB at £632m vs £614m previously, as a result of rolling forward our model and updating for exchange rates and net cash, in addition to now including OXB's equity stake in Orchard. Additionally, we have removed the Immune Design partnership and lowered our FY18 Kymriah forecasts. Our core drivers remain OXB's partnerships, which represent £6.67/share of our total value.

9 November 2018

Price	**715p**
Market cap	**£473m**
	US$/£0.77, €/£0.87, US$/€0.88
Net cash (£m) at end June 2018	5.2
Shares in issue	66.1m
Free float	79%
Code	OXB
Primary exchange	LSE
Secondary exchange	N/A

Share price performance

%	1m	3m	12m
Abs	(3.9)	(13.7)	73.7
Rel (local)	0.9	(5.7)	87.0
52-week high/low	1,050p		410p

Business description

Oxford BioMedica's (OXB) LentiVector technology underpins the company's strategy. OXB generates significant revenue from partners that use its technology, notably Novartis, Bioverativ, Orchard Therapeutics and Immune Design. OXB is implementing significant capacity upgrades to enable more partnering/out-licensing agreements.

Next events

New out-licence or partnership	2018/19
FY18 results	Spring 2019
OTL-101 BLA/MAA submission	2020

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Edison profile page

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Revenue on the rise as partners progress

Interim results highlight the strong operational momentum at OXB. Higher licence and bioprocessing revenues led to a maiden operating profit of £9.4m (vs a loss of £2.2m in H117). We expect the near-term focus to be on top-line growth rather than margin expansion as OXB looks to capitalise on a growing cell and gene therapy market. New deals in 2018 with Axovant and Bioverativ continue to broaden OXB's revenue base and dilute its reliance on the Novartis partnership, while collaborations like those with the UK Cystic Fibrosis Gene Therapy Consortium build on a broad pipeline with long-term potential.

- In June 2018, Axovant out-licensed OXB's Parkinson's disease (PD) gene therapy AXO-Lenti-PD (previously OXB-102) for up to $842.5m. The deal includes $30m upfront ($5m as a pre-payment for manufacturing-related activities), $55m in development milestones and $757.5m in commercial milestones, in addition to tiered royalties of 7–10%.
- In March 2018, OXB signed a partnership deal with Bioverativ (now part of Sanofi) to develop in vivo gene therapies for haemophilia A (Factor VIII deficiency) and haemophilia B (Factor IX deficiency). OXB received $5m on the closure of the deal and is entitled to up to $100m in revenue from product development, regulatory and sales milestones, in addition to undisclosed royalties.
- In August 2018, OXB announced it had entered into collaboration with the UK Cystic Fibrosis Gene Therapy Consortium and Imperial Innovations to develop a lentiviral vector-based therapy to treat cystic fibrosis (CF). In conjunction with this, OXB has signed a separate option and licence agreement with Boehringer Ingelheim for the manufacture and commercialisation of any vector-based CF therapy stemming from the three-way collaboration.

Existing partnerships continue to flourish, Novartis's CAR-T Kymriah is now approved in both the US and EU in adult diffuse large B-cell lymphoma (DLBCL) and paediatric acute lymphoblastic leukaemia (pALL). In the near term, we forecast double-digit million revenues from this partnership, predominately in the form of royalties for OXB, as Novartis steps up its commercialisation efforts on Kymriah. We note that the larger DLBCL indication will be a key driver of royalties and milestones, and success or failure in this indication would have a material impact on OXB's long-term revenue stream from Novartis.

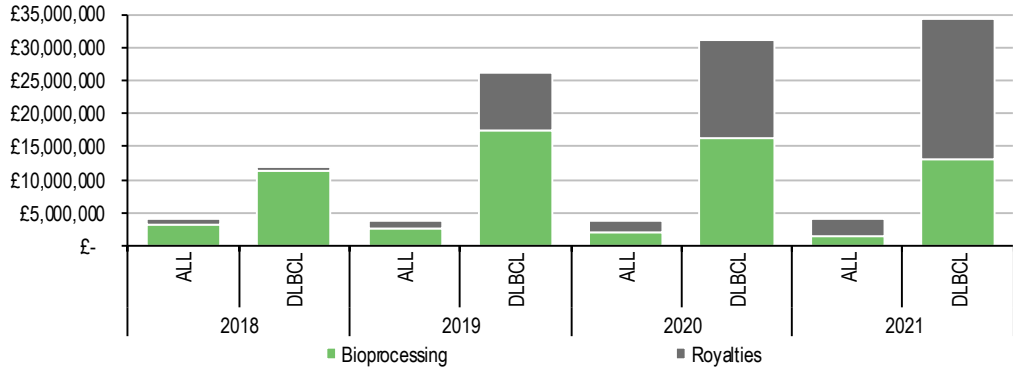
Orchard Therapeutics has now acquired GSK's gene therapy pipeline and OXB's collaboration with the company has expanded to include some of these additional assets. With the completed gross $225.5m Nasdaq listing (the share price was $14.48 at market close on 8 November with a market capitalisation of $1.24bn; OXB's stake was worth $16.1m [c £12.4m]), Orchard will aim to advance its products rapidly through the clinic. We forecast that OXB will continue to benefit from these partnered products in the form of bioprocessing revenues.

After early analysis of the ongoing Phase II study testing the combination of CMB305 (which utilises OXB's lentiviral technology) and Tecentriq, Immune Design determined that it was not likely to show a survival benefit in relapsed synovial sarcoma patients. As a result of these findings, the Phase III study (SYNOVATE) of CMB305 as a monotherapy in first-line synovial sarcoma patients, in addition to all future development plans, has been stopped. We now forecast that further development and manufacturing with OXB on the LV305 project will now be halted (LV305 makes up one of two components of CMB305). As a result, we have removed the Immune Design collaboration from our model and valuation.

Novartis's Kymriah now approved in the EU

Kymriah, a CD19 targeting CAR-T, is now approved in both the US and EU in adult DLBCL and pALL. Before May 2018, Kymriah was approved only in the US for pALL. US approval in adult DLBCL widened the market opportunity, given the greater patient numbers versus pALL. Launch into European markets for both indications will also add to the growing revenue stream for both Novartis and OXB. To date, revenue from the Novartis collaboration has come predominately from bioprocessing (the sale of LentiVector batches) and development milestones. Now Kymriah is commercially approved, we expect this mix to alter as the royalty stream builds. We forecast that the royalty stream from Kymriah in both pALL and DLBCL will overtake bioprocessing royalties by 2021. Novartis reported Q318 sales of Kymriah of $20m, Q218 sales of $16m and Q118 sales of $12m. While sales in pALL have been broadly in line with our expectations, sales in DLBCL have been lower as a result of a later than expected launch in both the US and the EU. We have reduced our forecast DLBCL sales for 2018, which in turn has reduced the forecast royalty OXB will receive.

Exhibit 1: Comparison of ALL and DLBCL bioprocessing and royalty revenues



Source: Edison Investment Research

Axovant deal for AXO-Lenti-PD

OXB has signed an out-licensing deal with Axovant for its PD gene therapy AXO-Lenti-PD (previously OXB-102) worth up to $842.5m. AXO-Lenti-PD is a re-engineered version of OXB's gene therapy ProSavin, which had finished a Phase I/II open-label study in 15 patients and demonstrated statistically significant improvements in motor behaviour.

AXO-Lenti-PD has been engineered to increase dopamine production (defective in PD patients) tenfold compared with ProSavin, which could lead to a more efficacious gene therapy product. Axovant has accelerated it into the clinic, with a Phase I/II dose-escalation study recently initiated in advanced PD patients. The first patient was dosed at the Clinical Research Facility affiliated with the National Institute for Health Research (NIHR) and University College London Hospitals (UCLH). The patient experienced no complications due to either the surgery or administration.

We anticipate launch of AXO-Lenti-PD in the US and EU in 2022. We forecast that Axovant will aim to launch the therapy on Phase II data with an accelerated approval. However, we note that insufficient data or failure to achieve an accelerated approval could cause these timelines to slip significantly. We forecast peak sales of $1.96bn across the US and EU, as described in our recently published note, Golden age for LentiVector as Axovant signs deal.

Additionally, we note that competitor Voyager Therapeutics, which manufactures VY-AADC, an AAV-based gene therapy for PD, has been informed by the FDA that its current Phase II trial testing VY-AADC is unlikely to be sufficient on its own to enable a marketing application, and an additional confirmatory trial will be required. This could significantly delay Voyager's development timelines and any potential launch window, and could have readacross to Axovant's AXO-Lenti-PD

development timeline. We retain our assumption that Axovant will launch AXO-Lenti-PD on the back of Phase II data as we envision data from the ongoing Phase I trial and the expected Phase II trial will be sufficient for filing. However, we will continue to monitor the FDA's stance on Voyager's trials to determine if it will have any future readacross to AXO-Lenti-PD and our forecast development timelines.

Bioverativ deal highlights the potential in haemophilia

In March 2018, OXB signed a partnership deal with Bioverativ (now part of Sanofi) to develop in vivo gene therapies for haemophilia A (Factor VIII deficiency) and haemophilia B (Factor IX deficiency). OXB received $5m on the closure of the deal and is entitled to up to $100m in revenue from product development, regulatory and sales milestones, in addition to undisclosed royalties. The collaboration gives Bioverativ a licence to use OXB's LentiVector technology and manufacturing capabilities. However, like the original Novartis deal in 2014, this deal does not cover a clinical supply agreement, and we assume the majority of $100m in potential future revenue is weighted towards product development. We forecast that OXB receives $80m of the proposed $100m in milestone payments over the next five years as products in both indications are developed. We believe that both gene therapies could launch in 2025, with accelerated approval after completing Phase II trials.

We note that competition in haemophilia gene therapies is intense. Spark Therapeutics and BioMarin lead the field in haemophilia gene therapies and both are developing adeno-associated virus (AAV) product candidates. In July 2018, Spark Therapeutics' partner Pfizer initiated a pivotal Phase III trial for haemophilia B patients. The most impressive data so far have come from BioMarin's therapy.

In December 2017, BioMarin initiated enrolment in a Phase III pivotal study testing its gene therapy, valoctocogene roxaparvovec (BMN 270), in haemophilia A patients. The trial is open label and will test two doses of the therapy with a primary endpoint of Factor VIII activity. Secondary endpoints include annualised Factor VIII replacement therapy use rate and annualised bleed rate. The company has announced that it plans to file a biologics license application (BLA) with the FDA in the second half of 2019.

Most recent data for BMN 270 come from a presentation at the World Federation of Hemophilia in May 2018. Data were presented on the $6x10^{13}$ vg (vector genomes)/kg cohort at 104 weeks and $4x10^{13}$ vg/kg cohorts at 52 weeks. In the $6x10^{13}$ vg/kg cohort, the data demonstrated a 97% reduction in mean annualised bleed rate (ABR), with no spontaneous bleeds in the second year. There was a 96% reduction in mean Factor VIII usage through week 104. The $4x10^{13}$ vg/kg cohort demonstrated a 92% reduction in ABR, with 83% of patients having no bleeds following a year's treatment. At baseline 17% had zero bleeds for a year.

While impressive, the data for the AAV vectors are early, and questions over long-term efficacy and safety still need to be answered. Product candidates being developed by Bioverativ and OXB could gain significant market share if the products can improve on the AAV products in development.

TRiP technology could be the key to cystic fibrosis therapies

OXB announced in August 2018 that it had entered into a collaboration with the UK Cystic Fibrosis Gene Therapy Consortium and Imperial Innovations to develop a lentiviral vector-based therapy to treat cystic fibrosis (CF). In conjunction, OXB has signed a separate option and licence agreement with Boehringer Ingelheim for the manufacture and commercialisation of any vector-based CF therapy stemming from the three-way collaboration. Unlike CAR-T cell therapy, which performs the viral transfection of T-cells outside the body (ex vivo), treatment of CF patients with a viral vector would need transfection to occur within the body (in vivo) via inhalation, requiring significantly larger volumes of lentiviral vectors than can currently be produced. OXB's Transgene Repression in

vector Production (TRiP) system could provide the solution and meet the scale-up demands for a lentiviral vector-based CF treatment. Previously published work indicates that TRiP could be significantly more efficient in lentiviral vector production, which would enable a step-up in manufacturing capacity that could dwarf its current expansion plans, and invariably secure lucrative development and bioprocessing deals.

Orchard Therapeutics IPO reveals scope of partnership

Orchard Therapeutics is a UK/US-based biotechnology company focusing on the treatment of rare diseases and continues to be a major contributor to OXB's bioprocessing revenue. With the $225.5m Nasdaq listing (ORTX), we now have additional information (F1 filing and Exhibit 10.8) on the partnership between both companies.

Orchard Therapeutics has acquired GSK's gene therapy pipeline and OXB's collaboration with the company has expanded to include some of these additional assets. The most advanced of these are OTL-101 for ADA severe combined immunodeficiency (ADA-SCID) and OTL-201 for Mucopolysaccharidosis type IIIA (Sanfilippo A syndrome). Orchard plans to submit a biologics licence application (BLA) for OTL-101 with the FDA in 2020 and submit a CTA (clinical trial application) in 2019 for OTL-201. Additionally, Orchard and OXB have one undisclosed programme in preclinical development.

OXB and Orchard's deal is structured so that OXB receives process development and bioprocessing revenues in addition to milestone payments and royalties on any future sales. In H118, Orchard was a significant contributor to OXB's top line (exact breakdown undisclosed) through process development and bioprocessing revenues. In addition to these revenues, OXB has received 1,111,924 Orchard shares for the achievement of certain undisclosed milestones. The most recent of these was met in August 2018 when the company issued 188,462 ordinary shares to OXB. OXB is eligible for further shares on meeting certain milestones and will receive low single-digit royalties on net sales (until January 2039) of any commercialised product covered under the agreement. The companies note that royalties could be reduced by a mid-double digit percentage if the revenue generated from a product is a result of compassionate use before any marketing approval/commercial launch. Orchard would also be eligible to pay a set monthly fee to OXB if Orchard utilises certain OXB systems in relation to generating stable cell lines.

As of 30 June 2018, OXB's equity stake in Orchard was valued at £3.7m. At market close on 8 November, it was valued at $16.1m (c £12.4m). However, the ongoing value of the equity stake will be determined by market dynamics and could either increase or decrease.

Expanding for a booming global market

Investments in R&D (H118: £14m vs H117: £10.5m), personnel (H118: 364 staff vs H117: 288 staff) and manufacturing (capital expenditure increased in H118 to £6m vs £1m in H117) demonstrate OXB's commitment to retaining its position as a market leader in lentiviral production. Notably, the company has announced the construction of a new bioprocessing facility, a sign of its intention to grow its revenues further.

OXB currently has three independent bioprocessing facilities totalling 1,200m^2, in addition to 2,136m^2 of laboratory space at Windrush Court, which was completed in 2016.To fund this new expansion, OXB raised net £19.6m in a capital raise in March 2018. This will be used to construct the new bioprocessing facility, which will include four GMP suites, a fill-and-finish facility, a cold warehouse and quality control laboratories, in addition to new office space. Situated close to its Windrush HQ in Oxford, the new facility consists of approximately 7,800m^2 of space, 4,200 m^2 of which will be used initially for the proposed facilities and the remaining space earmarked for subsequent capacity requirements. The warehouse is expected to be open in Q119, with the GMP

suites operationally ready in Q120. Headcount is also anticipated to rise to c 425 by year end (a 32% increase y-o-y) to meet future capacity demands.

Preparing the next wave of products

To ensure OXB's lentiviral vector technology remains at the forefront of the field, it has begun the process of looking for early-stage in-licensing opportunities. These deals will be focused on academic institutions that possess the IP for specific genetic diseases and where OXB can utilise its Chemistry, Manufacturing and Control (CMC) expertise to develop an idea rapidly (12-24 months) into a clinically ready package. Additionally, with a strengthened balance sheet, OXB now plans to develop some of its assets into early-stage clinical trials (Phase I) instead of stopping at preclinical development. While both the capital requirements and risks involved in clinical development are significantly more than those involved in preclinical development, the potential return on an out-licence of a clinical asset is substantial.

In line with bringing forward the next stage of product candidates, OXB has provided further information on additional assets in its pipeline. These include three new preclinical assets: OXB-204 (Ophthalmology-LCA10), OXB-208 (Ophthalmology-RP1) and OXB-103 (amyotrophic lateral sclerosis). We currently have no timelines or information regarding OXB's development plans for these assets and we do not include them in our valuation. However, now that they have been promoted to the pipeline, we envision that OXB will look to prioritise their development alongside its other proprietary products OXB-202, OXB-302 and OXB-201. We will reassess including these assets in our valuation when we have greater clarity on the respective development strategies.

OXB-204: Ophthalmology (LCA10)

OXB are developing OXB-204, a lentiviral-based therapy for the ocular disease LCA10 (Leber's congenital amaurosis variant 10), which is caused by defects in the CEP290 gene. Symptoms include loss of light sensitivity (difficulty seeing at night), nystagmus, poor pupil reactions and reduction in peripheral vision. LCA is a rare inherited eye disease that manifests early in a patient's life. There are 20 variations of the disease (type 1 through to type 20), with almost all forms currently untreatable, except for LCA2 (caused by mutations in the gene RPE65) where Luxturna (Spark Therapeutics) is approved for its treatment. Luxturna is an AAV vector that is administered via a subretinal injection, which codes for the expression of the RPE65 gene.

There are currently no treatments approved for LCA10 and two competitive products in development: QR-110, a Phase II/III asset from ProQR and EDIT-101, a preclinical asset from Editas. QR-110 is an antisense oligonucleotide, which demonstrated improvements in visual acuity and functional vision after three months in approximately 60% of patients in an ongoing Phase I/II trial (interim analysis). The trial enrolled 12 patients, of which 10 were dosed. Patients received four intravitreal injections into one eye over the course of a year, with one injection given every three months. ProQR is in the process of planning a potential registration trial (Phase II/III) for QR-110 that would enrol between 30 and 40 patients. The company expects the trial to be initiated in the first half of 2019.

Editas is developing EDIT-101, which utilises a CRISPR system with an AAV delivery mechanism for the treatment of LCA10. EDIT-101 is currently in preclinical development, although Editas has recently submitted an investigational new drug application (IND) to the FDA. In August, partner Allergan exercised its option to jointly develop and commercialise EDIT-101. Editas received $15m and is eligible to receive an additional $25m on acceptance of an IND application by the FDA. We note that CRIPSR remains a developing area and no clinical data have been generated across the industry to date. However, CRISPR Therapeutics recently (August 2018) initiated a Phase I/II clinical trial for its lead asset CTX001 (out-licensed to Vertex Pharmaceuticals) in patients with β-

thalassaemia. This is the first in-human study of a CRISPR-based therapy in the US or EU, and is widely considered to be pivotal in validating the approach.

OXB-208: Ophthalmology (RP1)

OXB is developing OXB-208, a lentiviral-based therapy for the ocular disease retinitis pigmentosa (RP) 1. RP is a disorder of the eye caused by a variety (60+) of genetic mutations that manifest in an assortment of symptoms including loss of light sensitivity (difficulty seeing at night) and reduction in peripheral vision with possible eventual loss of central vision. OXB-208 is focused on RP patients whose disease is caused by deficiencies in the RP1 protein (also known as oxygen-regulated protein 1). Luxturna is currently the only approved therapy for RP, but is only for the treatment of RPE65-deficient RP. There are currently no treatments approved for RP1, with vitamin and nutritional supplementation therapy often the only limited option, nor are we aware of any gene therapies in development for RP1-associated RP.

OXB-103: Amyotrophic lateral sclerosis

OXB is developing OXB-103, a lentiviral-based therapy for amyotrophic lateral sclerosis (ALS). ALS (also known as Lou Gehrig's disease) is a group of rare neurological disorders that affect neurons, often resulting in the death of the cells. The disease is progressive, starting with difficulty in movement and often resulting in a patient's death due to respiratory failure (often occurring within three to five years of first diagnosis).

ALS has a multitude of causes, most of which are unknown. However, some are due to genetic defects, the most common of which occur in genes C9ORF72 and SOD1. At this time the genetic packing of OXB-103 is unknown, but we expect it to be aimed at correcting one of the common gene defects. Treatments for ALS are currently limited, with no therapies approved that can cure the disease. Two drugs are approved by the FDA for treatment of ALS: riluzole (Rilutek) and edaravone (Radicava). Riluzole may slow the disease by decreasing levels of glutamate and edaravone has been demonstrated to improve patient's functional abilities. However, both have a minimal effect on the long-term health of ALS patients. Current therapies in development for ALS remain fragmented; the most advanced is a mesenchymal stem cell therapy (NurOwn) in development by BrainStorm Cell Therapeutics. NurOwn is in a US-based, Phase III trial that is expected to enrol 200 patients by mid-2019, with top-line results expected in 2020. Other drugs in development include a sublingual lower-dose formulation of riluzole (BHV-0223), which is in development by Biohaven Pharmaceuticals. The company expects to submit an NDA for BHV-0223 by year end.

Financials

Gross income of £36.0m (+118%) consisted of income from licence fees, incentives and grants of £20.6m (H117: £2.8m) and £15.4m (£13.7m) from bioprocessing/commercial development. The licence fees related to the deals signed with Bioverativ and Axovant in February and June respectively (£18.6m). We note that £10.2m of the Axovant upfront ($30m total) was recognised; the majority of the income has been deferred and will be recognised as the related development work is performed. OXB received £3m as a grant from Innovate UK to aid capacity expansion and support the UK's efforts to produce viral vectors to meet future demand. We have slightly increased our FY18 revenue forecasts to £74.3m from £72.5m as a result of the £3m Innovate UK grant and currency exchange effects. However, this increase was slightly offset by a reduction in our 2018 forecast sales of Kymriah.

R&D and COGS increased to £14.1m in H118 (H117: £10.5m) and £10.1m (H117: £8.0m) respectively. For R&D, this was a result of increased investments in commercial and technical

projects, while the increase in COGS was driven by growth in bioprocessing. Product-related R&D spend remains broadly flat y-o-y. R&D has grown more quickly than we originally forecast, and we have therefore adjusted our FY18 R&D forecasts upwards to £28.1m (vs £24.7m previously). Additionally, we have reduced our forecast FY18 COGS costs to £24.5m (vs £27.8m previously) to reflect a higher ratio of licensing revenue in comparison to bioprocessing revenue than previously anticipated.

As the company was profitable in H118, no tax credits were received (H117: £2.5m). Interest payments on OXB's loan facility with Oaktree Capital Management increased to £4.2m in H118 (H117: £3.6m) due to the fall in sterling (vs the US dollar) and revaluation of the debt to £38.8m. Gross cash was £44.0m as of 30 June, resulting in a net cash positon of £5.2m (vs net debt of £23.4m as of 30 June 2017), although we expect this to revert by the end of FY18 from the expansion activities planned in H218.

We currently forecast a £3.1m net profit in 2018; but note that multiple sensitivities remain around this number including cost sensitivities in R&D, facilities and personnel, in addition to revenue sensitivities with regard to Kymriah sales growth, the extent of bioprocessing revenue and the execution of any new deals.

Valuation: £632m (£9.57/share)

We value OXB at £632m (£9.57/share) vs £614m previously, as a result of rolling forward our model, updating for exchange rates and net cash, and now including OXB's equity stake in Orchard (valued at $16.1m [c £12.4m] at market close on 8 November). We note that this increase was driven predominately by the addition of the Orchard equity stake and updating our exchange rates. However, the increase was slightly offset by a reduction in FY18 forecast royalties for Kymriah and the removal of the Immune Design partnership from our valuation.

Our valuation is based on a risk-adjusted NPV of partnered products with Novartis (Kymriah and undisclosed second CAR-T: £3.19/share), Orchard Therapeutics (OTL-101 and OTL-201: 18p/share + 19p/share for the equity stake), Bioverativ (Factor VIII and Factor IX: 74p/share), Sanofi (SAR422459 and SAR421869: 31p/share), AXO-Lenti-PD (PD: £2.06/share), OXB-201 (wet AMD: 49p/share), OXB-202 (corneal graft rejection: 43p/share) and OXB-302 (cancer: 5p/share). We include net cash (8p/share) and a terminal value (£1.84/share).

We note that OXB recently consolidated its shares in issue by a factor of 50. The company now has 66,058,261 shares in issue. For extensive details of our valuation, please see our recent note, Validation achieved, growth expected.

Exhibit 2: Financial summary

£'000s	2016	2017	2018e	2019e
Year end 31 December	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS				
Revenue	27,776	37,590	74,309	85,076
Cost of Sales	(11,835)	(18,442)	(24,520)	(29,929)
Gross Profit	15,941	19,148	49,789	55,147
R&D	(24,299)	(21,611)	(28,119)	(30,665)
Administrative expenses	(5,957)	(7,276)	(11,278)	(12,969)
Other operating income	3,002	4,071	0	0
EBITDA	(7,638)	(1,293)	15,547	18,277
Depreciation	(3,340)	(4,113)	(5,135)	(6,748)
Operating Profit (before amort. and except.)	(10,978)	(5,406)	10,412	11,529
Amortisation	(335)	(262)	(20)	(16)
Exceptionals	0	0	0	1
Operating profit	(11,313)	(5,668)	10,393	11,513
Net Interest	(8,994)	(6,093)	(6,566)	(6,921)
Other	0	0	0	1
Profit Before Tax (norm)	(19,972)	(11,499)	3,846	4,608
Profit Before Tax (reported)	(20,307)	(11,761)	3,827	4,592
Tax	3,666	2,744	(727)	(873)
Profit After Tax (norm)	(16,306)	(8,755)	3,119	3,735
Profit After Tax (reported)	(16,641)	(9,017)	3,100	3,720
Average Number of Shares Outstanding (m)	56	62	65	66
EPS - normalised (p)	(29.35)	(14.14)	4.80	5.65
EPS - reported (p)	(29.95)	(14.56)	4.77	5.63
Dividend per share (p)	0.00	0.00	0.00	0.00
Gross Margin (%)	57.4%	50.9%	67.0%	64.8%
EBITDA Margin (%)	(27.5%)	(3.4%)	20.9%	21.5%
Operating Margin (before GW and except) (%)	(39.5%)	(14.4%)	14.0%	13.6%
BALANCE SHEET				
Fixed Assets	29,501	28,421	40,512	51,249
Investments	657	2,954	6,200	6,200
Intangible Assets	1,330	97	77	62
Tangible Assets	27,514	25,370	34,235	44,987
Current Assets	27,441	36,981	63,094	60,389
Inventory	2,202	3,332	4,434	5,412
Debtors	6,904	17,088	24,430	27,970
Cash	15,335	14,329	34,958	27,879
Other	3,000	2,232	-727	-873
Current Liabilities	(9,316)	(21,762)	(32,062)	(34,285)
Creditors	(6,003)	(8,690)	(10,077)	(12,300)
Provisions	0	0	0	0
Deferred income	(3,313)	(13,072)	(21,985)	(21,985)
Long Term Liabilities	(35,011)	(37,494)	(39,475)	(41,563)
Long term borrowings	(34,389)	(36,864)	(38,845)	(40,933)
Other long term liabilities	(622)	(630)	(630)	(630)
Net Assets	12,615	6,146	32,070	35,790
CASH FLOW				
Operating Cash Flow	(5,979)	(1,551)	17,403	15,982
Net Interest	(3,258)	(10,800)	(4,623)	(4,871)
Tax	4,131	4,530	2,232	(727)
Capex	(6,458)	(1,969)	(14,000)	(17,500)
Acquisitions/disposals	0	0	0	0
Financing	17,497	385	19,578	0
Dividends	0	0	0	0
Other	47	8,399	38	38
Net Cash Flow	5,980	(1,006)	20,629	(7,079)
Opening net debt/(cash)	17,900	19,054	22,535	3,888
HP finance leases initiated	0	0	0	0
Other	(7,134)	(2,475)	(1,982)	(2,087)
Closing net debt/(cash)	19,054	22,535	3,888	13,053

Source: Company accounts, Edison Investment Research

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