FOCUSED ON DELIVERING

Preliminary results for the year ended 31 December 2016

16 March 2017

Forward-looking Statements

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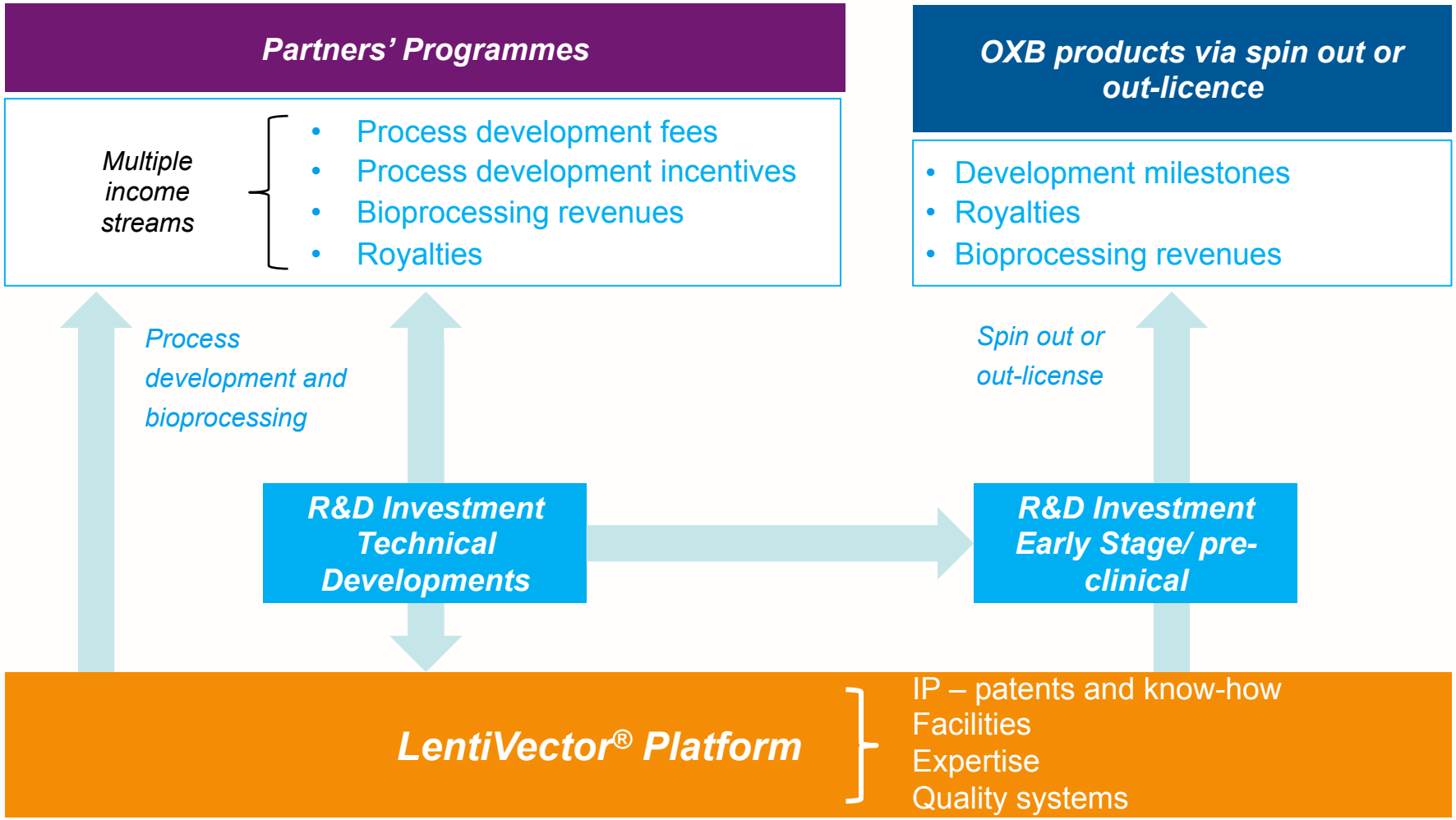
2016 Operational Highlights (1/2)

- LentiVector® delivery platform
  - Novartis collaboration progressing well with blockbuster potential product CTL019 and second undisclosed CAR-T programme
  - Strategic alliance established with Orchard Therapeutics to develop and supply lentiviral vectors for *ex vivo* treatments
  - Immune Design collaboration expanded, including licence to use lentiviral vector-based products for *in vivo* treatments for cancer
  - New R&D collaboration with Green Cross LabCell focused on gene modified natural killer (NK) cell-based therapies
  - 200 litre bioreactor production process established at commercial scale with potential to substantially increase yield and reduce cost of a patient dose
  - Transgene Repression In Vector Production (TRiP) system developed to enhance the production titres of a broad range of gene therapy vectors

2016 Operational Highlights (2/2)

- Bioprocessing and laboratory facilities
  - Major capacity expansion completed
  - MHRA approval granted for GMP vector manufacture
  - Vector production volume increased by 54% compared with 2015 (1st generation process)
- Progress with proprietary product development
  - Ground-breaking long-term results seen from follow-up studies of patients treated with OXB-101 (for Parkinson's disease) and OXB-201 (for wet AMD)
  - OXB-102 (for Parkinson's disease) and OXB-202 (for corneal graft rejection) ready to start Phase I/II studies following out-licensing / spin out
  - OXB-302 (for solid cancer tumours) pre-clinical proof-of-concept achieved and ready for further development following out-licensing / spin out
  - SAR422459 (licensed to Sanofi for Stargardt disease) in Phase II development

Strategy: Leveraging Our LentiVector® Delivery Platform



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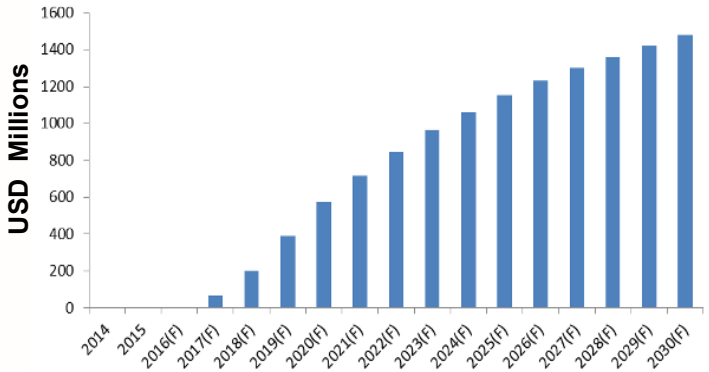
Delivery of support to Novartis CTL019 programme

- Delivered batches of LentiVector® for clinical studies
- Input into Biological Licence Application
- Ongoing development of next-generation manufacturing processes

CTL019 consensus sales forecasts [1]



- Novartis R&D update in January 2017 included CTL019 in its list of late stage potential blockbuster products
- Analysts forecast[1,2] at least $1 billion worldwide peak sales for CTL019
- ELIANA Phase II clinical trial in r/r ALL in paediatric and young adults presented at ASH, Dec 2016
  - Met primary endpoint with strong overall response rate (CR/Cri 82%)
  - Acceptable safety profile with no deaths due to CRS, neurologic toxicities and no cases of cerebral oedema reported
- Novartis plan to file CTL019 for r/r B Cell ALL with the FDA “early 2017” and in the EU “late 2017”
- Pivotal JULIET Phase II trial data for diffuse large B-cell lymphoma (DLBCL) expected in Q2 2017
- DLBCL submissions in US and EU planned in Q4 2017

[1] Global Data Pharma eTrack Product Sales/Analyst Consensus, March 2016. Forecasts are derived from Leerink Partners, Cowen & Co., Auerbach Grayson & Co.
[2] Jefferies note published 25 January 2017.

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Many companies conducting clinical trials with lentiviral vectors

Examples of companies working in clinical development

IMMUNE DESIGN

THERAVECTYS

Orchard therapeutics

Celyad

NOVARTIS

JUNO THERAPEUTICS

gsk GlaxoSmithKline

CARSGEN THERAPEUTICS

SANOFI

bluebirdbio

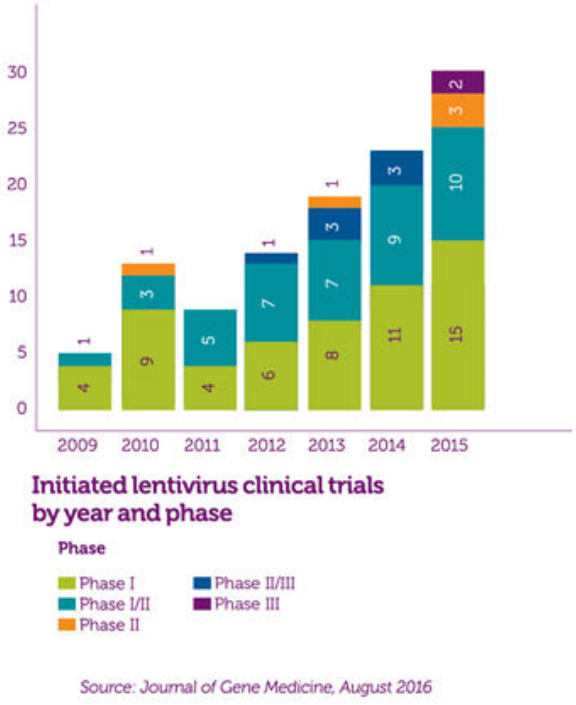
apceth BIOPHARMA

cellectis

Adaptimmune TRANSFORMING T CELL THERAPY

FIBROCELL

BIOMARIN



Examples of companies working in pre-clinical development

Bioverativ

Rubius THERAPEUTICS

Sangamo THERAPEUTICS

Green Cross LabCell

Products Pipeline - Proprietary and Partnered

Product	Indication	Research/ Pre-Clinical	Phase I	Phase I/II	Phase II	Phase III	Approval	
OXB Proprietary Products								
OXB-102	Parkinson's disease (Central Nervous System)							OxfordBioMedica
OXB-202	Corneal graft rejection (Ophthalmology)							OxfordBioMedica
OXB-302	Cancer (multiple) (Oncology)							OxfordBioMedica
OXB-201	Wet AMD (Ophthalmology)							OxfordBioMedica
OXB-301	Cancer (multiple) (Oncology)							OxfordBioMedica
OXB Partnered products								
SAR422459	Stargardt disease (Ophthalmology)							SANOFI
SAR421869	Usher syndrome type 1B (Ophthalmology)							SANOFI
Partners' Products								
CTL019	Cancer (multiple) (Oncology)							NOVARTIS
Undisclosed CAR-T	Cancer (multiple) (Oncology)							NOVARTIS
LV305	Cancer (multiple) (Oncology)							IMMUNE DESIGN
ADA-SCID	ADA severe combined immunodeficiency							Orchard therapeutics
MPS IIIA	Sanfilippo A syndrome							Orchard therapeutics
Undisclosed	Undisclosed							gsk GlaxoSmithKline
Undisclosed	Undisclosed							gsk GlaxoSmithKline

To be spun out or out-licensed

Development milestones and royalties

Process development and bioprocessing revenues, and royalties

Delivery of In-House Programmes

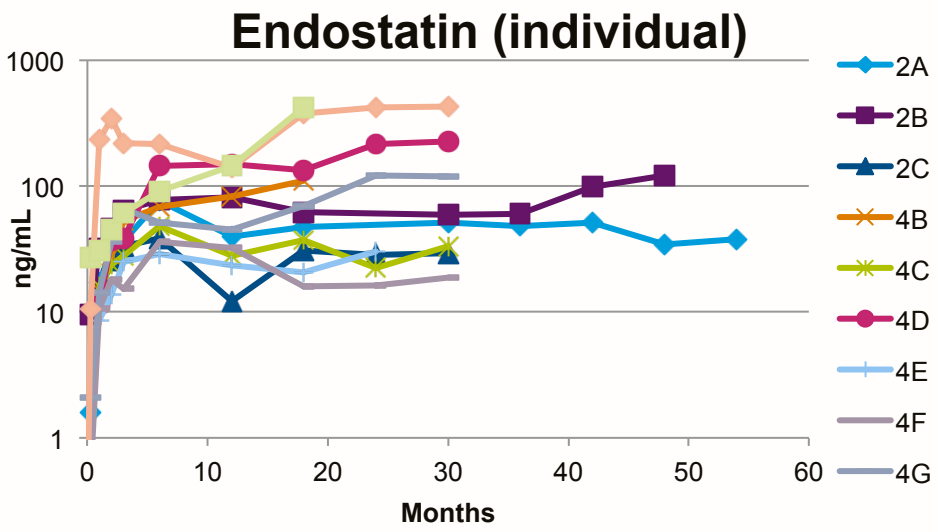
- OXB-102 (Parkinson's disease)
  - OXB-101 showed encouraging efficacy and long-term duration of benefit
  - OXB-102 in late-stage preparations for Phase I/II clinical study
  - Clinical study material manufactured
  - SPV progress – Ongoing discussions with VCs and Big Pharma

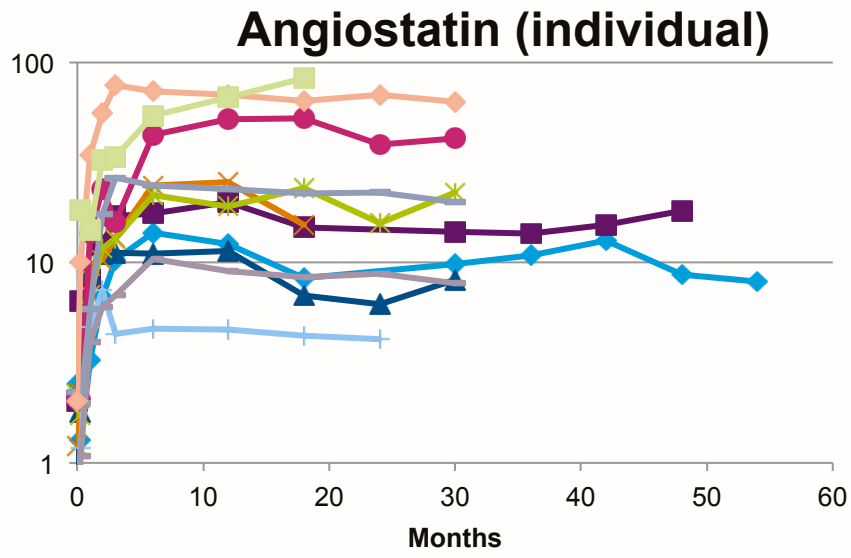
- OXB-202 (prevention of corneal graft rejection)
  - Clinical study material manufactured
  - OXB-202 in late-stage preparations for Phase I/II clinical study
  - Tech transfer to clinical site to start once funding secured

- OXB-302 (CAR-T 5T4)
  - Pre-clinical studies completed, demonstrating proof-of-concept
  - Highlights include:
    - CAR-T 5T4 cells can kill tumour cells derived from colorectal cancer and mesothelioma in a "test tube" (*in vitro*)
    - T cells taken from patients with ovarian cancer can be re-programmed with the 5T4 CAR construct and respond (*in vitro*) to their own tumour cells, resulting in tumour cell death
    - In industry standard animal model (*in vivo*) 5T4 CAR-T cells can treat established ovarian cancer

LentiVector® Platform Evidence of Long-term Duration

- Long-term four year follow up data for OXB-201[1]
  - Dose responsive expression of proteins
  - Long term follow up continues





Persistent expression out to >4 years so far (ongoing)

[1] Binley, K et al. Oral Presentation at ASGCT Conference, Washington DC, May 2016

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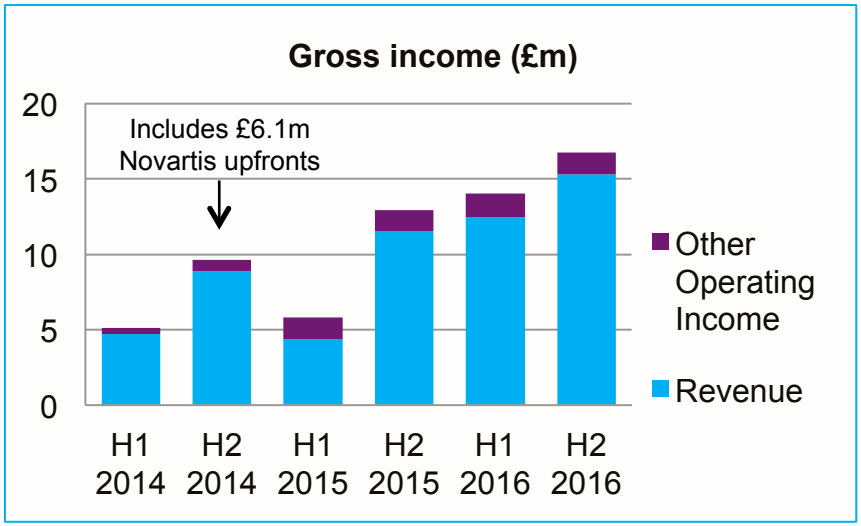
Financial review

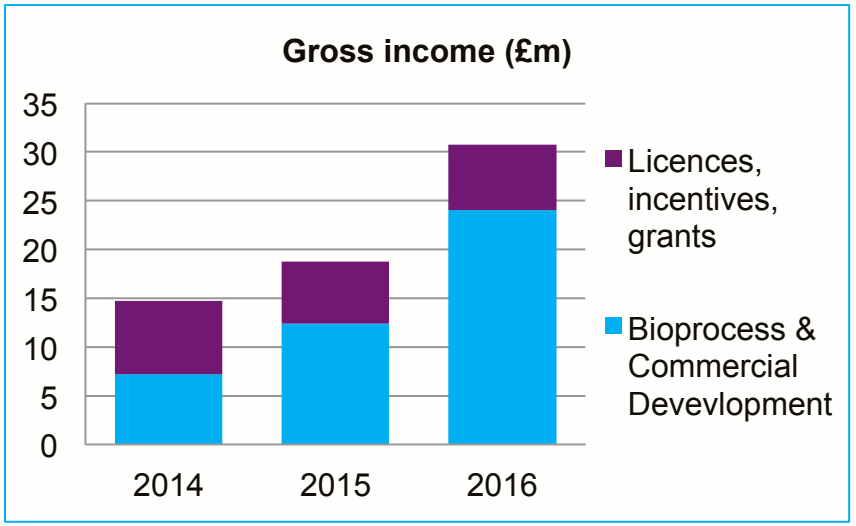
2016 Financial Highlights

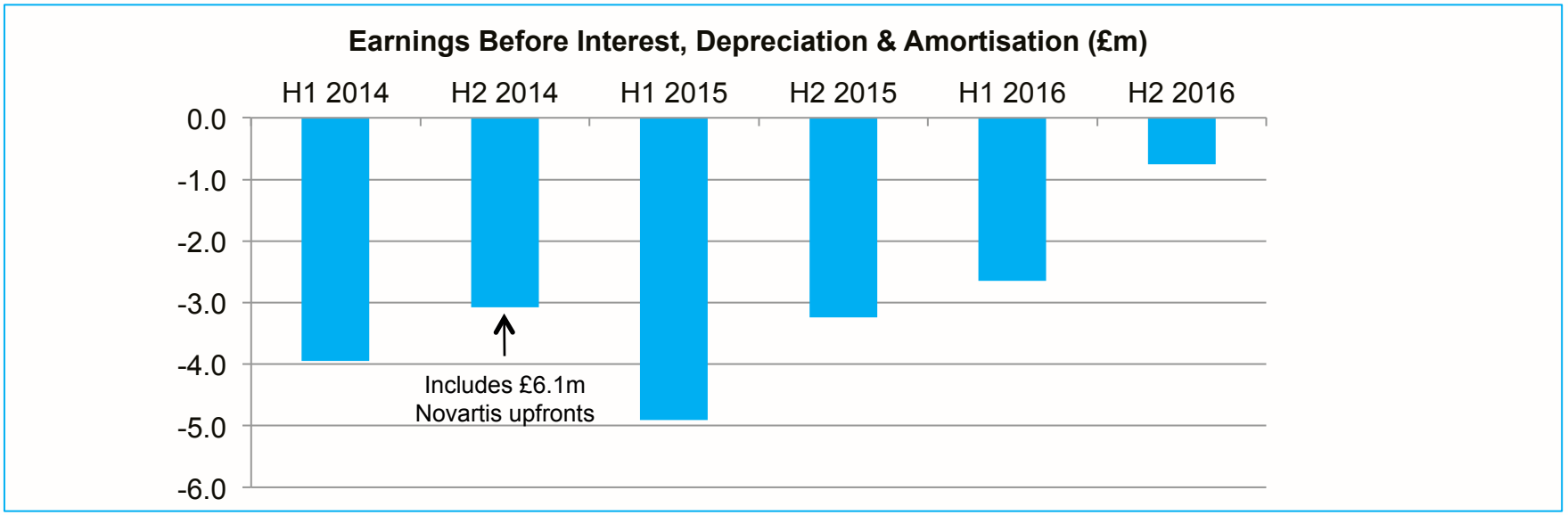
- 64% increase in gross income[1] to £30.8m (2015: £18.8m)
- 4% increase in operating expenses[2] to £26.1m (2015: £25.1m)
- EBITDA[3] loss reduced to £7.1m (2015: £12.1m)
  - H2 2016 EBITDA loss only £1.9m
- Operating loss £11.3m (2015: £14.1m)
- Net cash used in operating activities reduced to £5.1m (2015: £13.1m)
- Capital expenditure £6.5m (2015: £16.7m)
  - H2 2016 capex only £0.5m
- Cash of £15.3m (31 Dec 2015: £9.4m) including £8.1m ring-fenced under Oberland agreement
- 2016 fundraising net proceeds of £17.5m

[1] Gross income = aggregate of revenue and other operating income
[2] Operating expenses = R&D and bioprocessing costs plus admin expenses excluding depreciation and amortisation
[3] EBITDA = Earnings Before Interest, Tax, Depreciation and Amortisation

Gross income[1] and EBIDA[2]







[1] Gross income = aggregate of revenue and other operating income
[2] EBIDA = Earnings Before Interest, Depreciation and Amortisation

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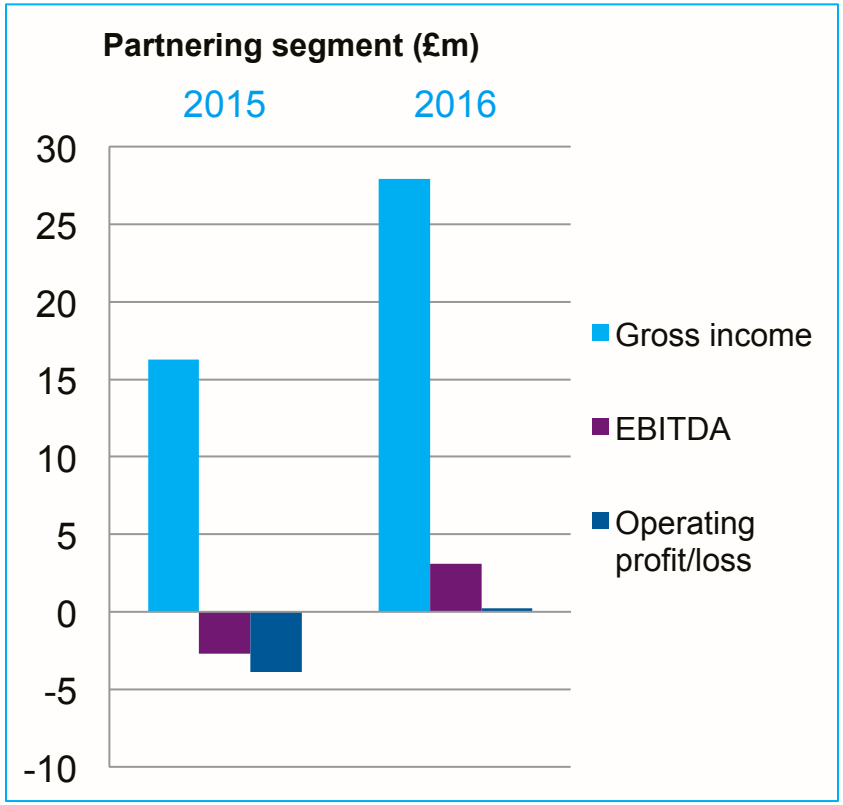
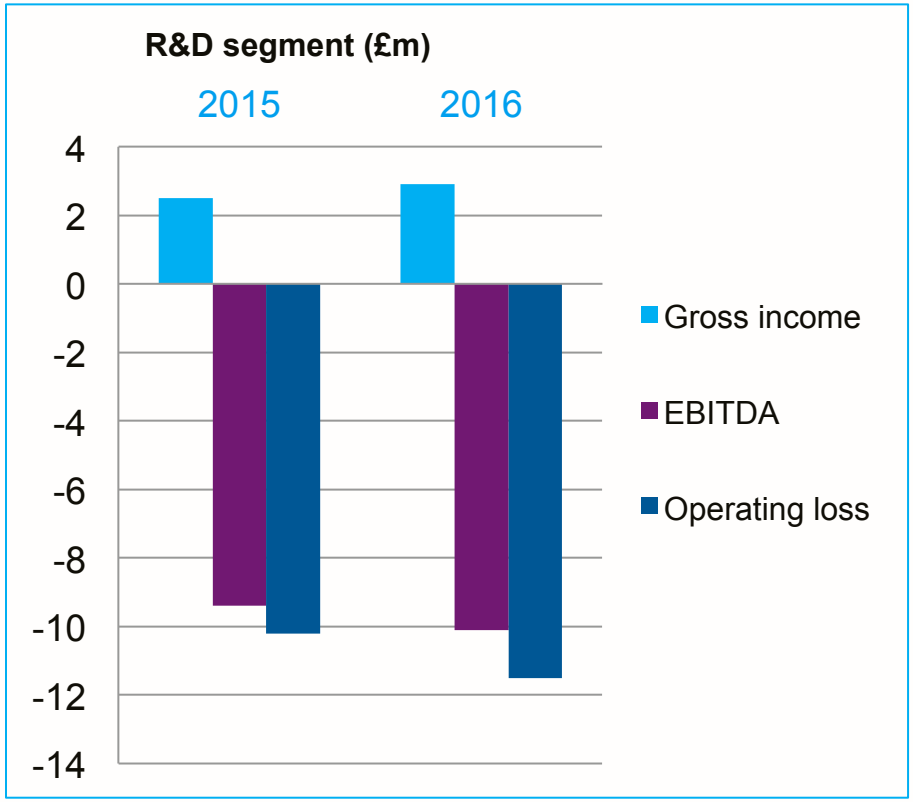
Segmental analysis





Partnering segment

- Gross income received from partnership arrangements
- Now generating cash (2016 EBITDA £3.1m)
- Infrastructure in place to support further growth

R&D segment

- Covers costs of investing in LentiVector® technology and product development (discovery, pre-clinical and preparation for clinical studies)
- Costs include employees and directly related internal costs, external project expenditure, and allocation of Group overheads

Financial outlook

- Expect gross income to continue to grow strongly
  - 3 GMP suites and laboratories fully operational
  - 3 revenue generating partners with potential for new partners in 2017
- Infrastructure in place
  - Only modest cost growth needed to support additional batch manufacture and process development
  - Spend on product candidates ready for clinical studies will be low
  - Will continue to spend on pre-clinical product ideas and LentiVector® technology
- Capital expenditure in 2017 expected to be relatively modest

Summary

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Potential 2017 Catalysts

- Novartis progress
  - Confirmation of Novartis CTL019 BLA submission
  - Data from DLBCL study (expected Q2 2017)
  - Confirmation of OXB commercial supply agreement for CTL019 vector
  - FDA approval of CTL019 and product launch

- LentiVector® delivery platform
  - Further contracts with new and existing partners giving us long-term economic interest in partners' product candidates
  - Successful development of 200L bioreactor serum-free suspension process to produce lentiviral vectors at significantly lower cost per dose

- In-house products
  - Successful spin out / out-license of in-house product candidates, delivering potential up-fronts, bioprocessing revenues, development milestones and royalties
  - First patients dosed with one or more clinical products in Phase I/ II clinical studies with appropriate partner

Vision of Oxford BioMedica – By End of 2018

Core LentiVector® R&D

New product candidates emerging from research/discovery using the LentiVector® platform

Lead gene-modified NK cell therapeutic candidate emerging from the GCLC research collaboration

Technical developments – continuous improvement of the LentiVector® platform

Feeds further partnership / monetisation opportunities

Partnerships and Licences

Novartis

- CTL019 launched
- Oxford BioMedica supplying commercial material
- Royalties from CTL019
- Second CAR-T product into clinical development
- Further CAR-T programmes

Sanofi

- SAR422459 to be in a pivotal trial

Immune Design

- LV305 progressing well in clinical development

Orchard Therapeutics

- ADA-SCID pivotal trial close to completion
- MPS IIIA in clinical development

OXB Products with Partners

- Progressing well through Phase I/II studies

Multiple further partnerships

Which give Oxford BioMedica economic interests in a range of gene and cell therapy products and process development revenue / income opportunities

Bioprocessing

Facilities operating at, or very, near capacity

Summary: A Leading Gene and Cell Therapy Company

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1. Gene and cell therapy is predicted to grow into a multi-billion US$ sector over the next 5-10 years
2. Lentiviral vectors have advantages over other vector types
3. OXB's sought-after LentiVector® gene delivery platform for both *in vivo* and *ex vivo* lentiviral vector products
4. OXB has world-class bioprocessing facilities and collaboration track-record in the field
5. OXB's product interests include own clinical and preclinical pipeline either spun out or out-licensed and an economic interest in partners' products

[1] Clive Glover, GE Healthcare "Sales of cell and gene therapy will reach $10 billion by 2021", October 2015.

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